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VOL. II. No. 20.

TORONTO, UPPER CANADA, OCTOBER 16, 1865.

POSTAGE FREE.

The Field.

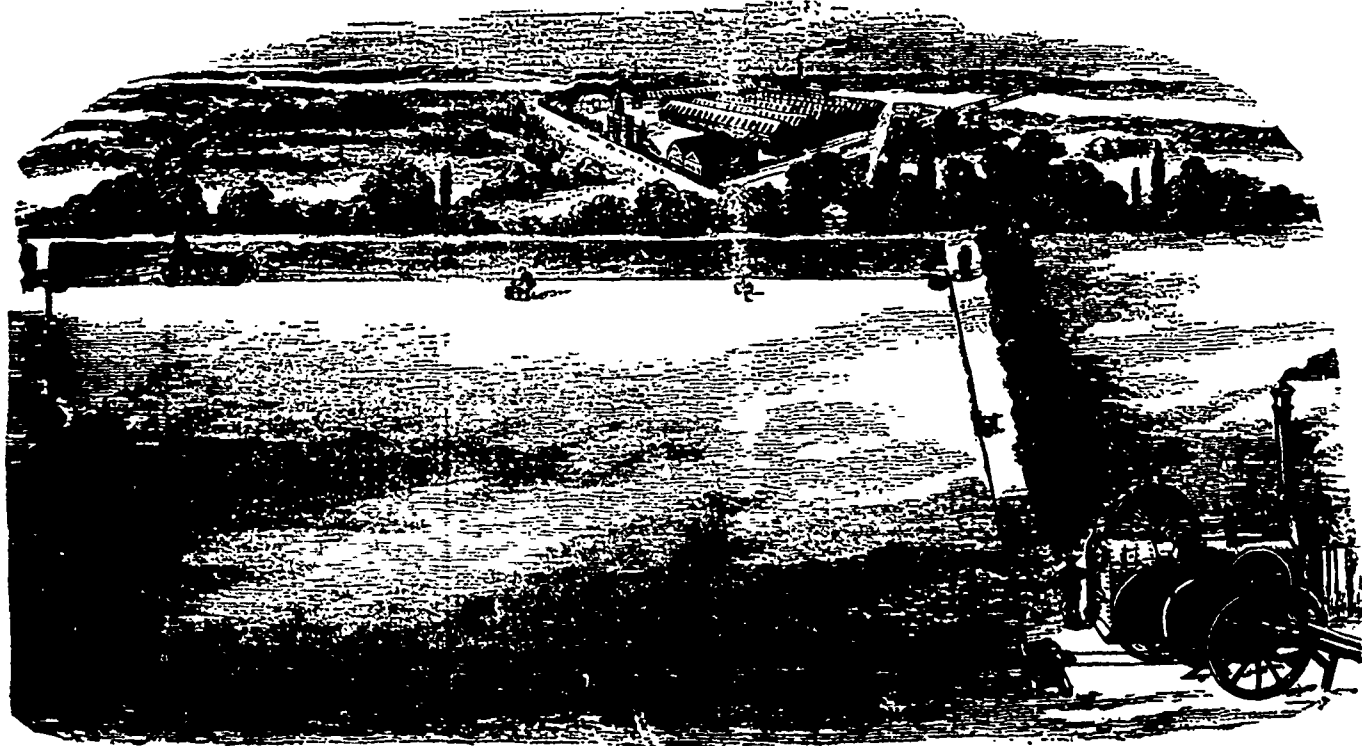
Steam Cultivation.

We propose to devote a few articles to the illustration of the subject of steam culture. There can be no question but that the steam engine is now one of the great facts of agriculture. The circle in which its more immediate influence is experienced is daily enlarging, and those who once regarded it with indifference or contempt, are now disposed to view it in a very different light. Steam culture, at the present day, is one of the realized improvements of practical husbandry. That amazing sceptic, the

steam cultivation brought no small amount of inventive genius to bear on the solution of the problem, and spent some thousands of pounds in the futile attempt to make an economical substitution of steam for horse power, in the cultivation of the soil. So early as the year 1618, one David Ramsay and a Thomas Wildgoose, obtained a patent for "New, apt, or compendious formes or kindes of engines or instrumentes, and other profitable invencons, wayes, and meanes, for the good of our Commonwealth, as well as to ploughe grounde without horses or oxen, and to enrich and make better and more fertill, as well barren peate, salte, and sea sande, as inland and upland grounde, within our Kingdomes of England and Ireland, and our Domyon of Wales." The far-

of the day that the inventor sold his horses as having no further use for them, and farther persuaded his friends to imitate his example, we have a picture, not only of the sanguineness of the inventor, but of the confiding faith of his friends. Another inventor appeared about this time, in the person of Dr. Richard Lovell Edgeworth, father of the celebrated Maria Edgeworth. He patented an engine with "an endless railway," somewhat similar to that patented by the late Mr. Boydell.

We have neither space nor inclination to mention the long list of inventors that have each contributed in a greater or lesser degree to perfect steam ploughing apparatus. In connection with Mr. Heathcoat's system, patented about 1836, one fact may be men-



British farm, has been silenced by the evidences of its rare utility and decided economy; and a great revolution in the farm practice of the "old country" may be fairly said to have commenced. This being so, we believe we shall be consulting the wishes of our readers by giving them some account of the growth and development of this invention, by which amazing results have already been achieved.

Steam ploughing is by no means a novelty, although, until a recent period, public attention had scarcely been directed to it. Long before the names of Fowler and Howard were connected with it, several patents had been taken out, and a variety of schemes had been tried. Some of the early pioneers of

of that period would doubtless esteem the two patentees as hopeless Quixotic visionaries, and would probably suggest that the name of the latter should be altered to Wildgoose, as indicative of the absurdly impracticable nature of the scheme. The same genius, David Ramsay, took out other patents in 1630 and 1634, to work a "gynn or engine" not only to plough, but also to deposit manure and seed by steam power. Passing over three other inventors, whose uncouth names need not trouble us, we come to Francis Moore, who, in 1768, and following years, took out no less than three patents, having for their object "the dispensing with animal power in tillage, navigation, &c. When we are told by a periodical

tioned, which is highly honorable to the foresight and public spirit of the Highland and Agricultural Society of Scotland. In 1837, this Society offered a "premium of £500 for the first successful application of steam power to the cultivation of the soil;" and at the Society's Show held in Dumfries, during the same year, £100 in addition was subscribed, to pay the expenses of exhibiting and working "Heathcoat's Plough." The judges, although considering the trial to some extent satisfactory, did not feel justified in awarding the premium. The Society, however, continued to offer the prize until the year 1843. In 1851 Lord Willoughby D'Eresby showed at the Great Exhibition, in Hyde Park, London, a complete set of

steam ploughing apparatus. It consisted of two engines,—one for each headland. These were each furnished with a winding barrel, and gradually advanced along their respective ends of the field as the work proceeded. Tracing onward the course of invention, we come next to the scheme of Messrs. Fiskin, of Stamfordham, Newcastle-upon-Tyne. In this system a stationary engine was employed, a main object of Mr. Fiskin being to dispense with wire ropes, and give off the power of the engine by means of a light, endless herpen cord, worked at a high velocity, which passed around pulleys on a self-moving anchor, and thence to winch; drum placed upon the implement, the rotation of which imparted motion to the ploughs. In passing, we will just notice two important features in this system. One that the anchors were self-propelling, the travelling motion being effected by the action of the rope round the pulley fixed to the anchor, the other, that the plough was on the balance principle, and was steered in either direction by means of locking the wheels. This apparatus was shown at the Royal Agricultural Meeting in 1855; but although it created quite a sensation, and the judges considered it "an implement of considerable promise," no further encouragement was given to the inventor by the Society, not even by the award of a medal. In the previous year Mr. Fowler, of Leeds, exhibited at the Royal Society's Meeting, held at Lincoln, his steam draining plough and apparatus. The judges were delighted with the performance of this implement, and wound up their remarks respecting it as follows. "Surely this power can be applied to more general purposes, we earnestly commend the idea to our engineers and mechanists. 'The idea' forthwith commended itself to a practical farmer, in the person of Mr. Smith, of Woolston, who ordered an apparatus of Mr. Fowler, with which he proposed to work, and afterwards did work, his cultivator. 'An opinion has been prevalent, says an able authority on this subject, that Mr. Smith has a claim to the invention of the whole apparatus; but in 1856, at a meeting of the Society of Arts, Mr. Smith admitted that his first windlass was constructed by Messrs. Ransomes, under the direction of Mr. Fowler.' I do not mention this to detract from the great merit due to Mr. Smith as a pioneer in steam cultivation, but simply that the merit should be properly divided, or given to the right party. I will, however, remark in passing that Mr. Smith has done as much or more than any other man, in arousing the country to the importance of steam culture, and to the fact that land can be economically worked by steam power."

We have now arrived at that point in our subject when we may say it was fairly launched. As yet its performances were somewhat limited, but clear heads and clever hands were at work, and hopeful men already saw the dawn of a new agricultural era.—Railways were being rapidly extended—the steam threshing machine travelled from farm to farm—and farmers began to appreciate the value of steam-driven machinery, and imbibe a taste for it. We are all creatures of habit. It is therefore not surprising, when once the taste for spending money on farm machinery is acquired, to see a farmer begin by giving £5 for a patent grindstone, and, by a succession of jumps, end by investing £800 for a set of steam cultivating apparatus.

Here for the present we must stop. The large and spirited illustration accompanying this article represents the Bedford apparatus,—patented by Messrs. J. and F. Howard—as at work. In this system, it will be seen, the engine is stationary, and the steel wire rope which draws the plough, or cultivator, is extended round the field on pulleys fixed on the various "rope porters,"—of which there are ten represented in the cut. The wheels fixed in the corners of the field are "anchors," with the exception of that immediately in front of the engine, which is the "Patent Snatch Block," also anchored. The top of the engraving being regarded as the north, the

plough it will be remarked is represented as travelling from west to east. When the east end is reached, the motion of the engine is reversed, and the plough travels westward, and so on. The occupation of the two men, standing one at each end of the furrow, is to remove the anchorage gradually southward as the land is ploughed. As we shall have occasion to refer to this illustration again, in the further treatment of our subject, we venture to hope that our readers will acquaint themselves with its details.

The buildings in the distance are the "Britannia Iron Works," Bedford, the manufacturing establishment of the Messrs. Howard. As will be observed, they have an imposing appearance, and form altogether a fine conception of architectural genius,—adapting beauty to the home of the furnace and the anvil.

The Midge and Deep Fall Ploughing.

In our issue of Sep. 1, we published a communication on deep fall ploughing as an extirpation of the midge. The natural history of this insect has been so often discussed of late years, that we imagine very few of our readers are unacquainted with the full particulars, but it is a subject that cannot be too often discussed; each discussion tending to throw some new light on the possible remedies for the pest. Like all insect life, the existence of the midge is continued through three stages, viz: the fly, the egg and worm resulting from the egg, and the chrysalis. The fly, as we all know, pierces the outer shell or husk of the wheat, and deposits its egg close to the germ of the young grain. Whether the egg is actually in the worm state when deposited, seems somewhat doubtful, but, at all events, it gains life immediately and fastens itself to the germ of the grain, feeding on, and abstracting the juices as they flow to nourish the berry, and of course destroying it. If the midge comes late, and only deposits its egg on the full formed grain (even although it is in a soft state,) it does little or no harm, as the worm cannot pierce the skin of the grain; but, if it deposits the egg at the time of flowering, or immediately afterwards, it is fatal to the crop. The worm perfects itself in time, and either remains in the ear of wheat till it is carried into the barn, or it leaves the ear and falls on the ground below, where it gradually wriggles itself into the earth, to the depth of probably an inch, and remains there till next spring.

The chrysalis is formed inside the body of the worm, and remains in a dormant state until it is hatched by the heat of the spring and summer; it then comes forth as the fly, and again runs its course as before. The midge does not, like some insects, pass through two or three transformations in the course of one year,—we have but one crop of midge each season. The midge affects some other kinds of cereals besides wheat, but the great mass of them attack the wheat. The foregoing facts can neither be disputed nor denied, the observation of every farmer has proved them over and over again. It is therefore clear that for a considerable time each year, the midge is under our control, and at our mercy, and if all could be made to think alike, and work simultaneously in its destruction, a great deal might be done to get rid of it.

From, and after harvest, until the month of May following, the midge is either in the barn, or, in the ground among the wheat stubble, where it fell at harvest. In the worm state, it has no means of locomotion further than just wriggling itself into the ground, and wriggles out of it at fly time. Any farmer who does not destroy, by burning or otherwise, all that come within his reach, in the barn, is a stupid blockhead, and deserves to lose his future crop. For those on the ground, there is but one cure,—and that is deep ploughing with the double Michigan plough, or one that operates in a similar manner. The stubbles ought to be ploughed to nine inches deep, if possible. The skim coiler, or small mould board, of the Michigan plough, skims off the surface of the furrow slice, and deposits it at the bottom of the previous furrow, the plough proper follows and buries the former surface at least six inches deep, and then the midge is safe for the time. It has been

repeatedly proved, by the most accurate American entomologists, that the midge-worm chrysalis cannot raise itself out of the earth more than two or three inches. The worm and chrysalis have been buried in great numbers by those persons who have made the pursuit their study, at one, two, three, four, five, and six inches deep, and the surface of the ground covered with gauze frames, so that none could escape as they emerged. Those buried at one, and two inches, all came forth in due season; those at three inches in less numbers; at four, less still; at five inches, scarcely any; and at six inches, none. It is therefore clear that, if we can bury them at and below six inches, we have them safely out of the way. As soon as the ground gets warm enough to hatch the chrysalis into the fly, they come forth in the earth and are destroyed. But, to carry out this mode of destruction effectually, all must act alike, and at once. Individual effort is comparatively useless. The deep ploughing may be done either in fall or spring before the fly comes out, one is as well as the other; but the ground must not be disturbed till the following fall, after the wheat is safe. The ground may be cultivated and cropped with the harrow, but it must not be ploughed, or the insect will be released,—a good smothering crop may be sown on it to keep the weeds down, or, it may be cultivated with the hoe, but no deep cultivation, of any kind, must take place, or the good attained will be lost. In Rainham and Walpole, where the soil is stiff clay, the farmers, on ploughing for the second time, in spring and summer (after fall ploughing,) used to find the turned up furrow alive with the moving chrysalides of the midge; but it does not seem to have struck them that if they had not ploughed the second time the midge would have been destroyed.

Now, there are objections to this plan. In the first place, half the people do not know, and cannot be made to believe in, the importance of it. In the second place, the only sure mode of growing clover, in this climate, is with wheat, and, in the present state of Canadian agriculture, we cannot afford to lose the clover; but we must either lose the clover or the wheat. We believe that it would be an excellent course to harrow such deep ploughed land in the spring, sow it plentifully with timothy and clover, or clover alone, (of the latter some twelve or fifteen pounds to the acre) and trust to it for the clover crop, either to stand for two years, or to be ploughed under in the fall as manure; but the ploughing must not take place till the midge is hatched into the fly and destroyed.

Unfortunately this system could only be carried out effectually by legal compulsion, and in a perfectly cleared country,—no one could hope by means of moral suasion to prevail on every one to act in the same manner and at the same time, or the midge might be so greatly reduced in the course of one season, as to be comparatively harmless,—but the system is impossible with newly cleared land, or with land that cannot be deeply and evenly ploughed. So long as new land is to be cleared in old settlements, or land encumbered with roots and stumps is to be cultivated with wheat, the evil must continue to exist in a greater or less degree. The midge does not appear to be generated in any particular locality,—its generation is gradual, and at first almost unobserved, but it travels each year from nine to ten miles distance. It came into Upper Canada from the Eastward, gradually, but surely, along the lake shore, at the rate above mentioned, each year. It also crossed into the Niagara District from the United States; and again it crossed the Detroit and St. Clair rivers into the Western section of the province, making a complete sweep, and general havoc, wherever it went. By a most merciful dispensation of an allwise Providence, however, all insect plagues bring with them the seeds of their own destruction. After flourishing a few years, there is generated from amongst themselves, a parasite of the ichneumon species. This insect is also a piercer, and deposits its eggs in the holes it makes with its ovipositor; but instead of attacking the grain it attacks the worm of the midge, and having pierced its body, deposits one or more eggs. These eggs turn into maggots, which feed, not on the vitals of the midge worm, but on its fat. The midge worm grows, and the ichneumon maggots grow with it, until at last they come to perfection. They then quit the midge worm, and undergo their own transformations,—leaving the midge worm in so bad a state that it cannot pass through its necessary changes, and it consequently perishes. These changes cannot of course be seen with the naked eye, but they have been traced microscopically by most reliable naturalists, and the facts are beyond dispute.

Nowhere are these changes more easily observed than in the English currant caterpillar. This is not the same insect as the currant and gooseberry worm so troublesome here the last season. In England the red and white currant trees are always more or less under the influence of the caterpillar. The first year there are a few, the second they are in myriads, all of which go through their regular transformations,

the third year the ichneumons appear in equal myriads; every caterpillar is more or less affected by them, and you see them by the thousand languishing and dying with the cocoons of the ichneumon worm projecting like spines from every part of their bodies. The next year there are no caterpillars, but monstrous quantities of ichneumons, and they perish for want of their usual sustenance. The year after there are again a few caterpillars, then more, and then the same round of ichneumons destroying them. Some years there will be a pause, caused by the peculiarities of the season, but this is the course run, with few exceptions. The same effect is produced by time and succession of season, on the ridge. In many places which were formerly devastated, it is now scarcely known, whilst in others, the pest is in existence, and will remain for its allotted time in full force.

There is no doubt that deep ploughing, and a proper period of rest afterwards, will greatly alleviate the plague, but until all will and can act in concert, it will never be destroyed out of the regular course of nature, in the manner before shown.

Results of Flax Culture.

To the President of the Board of Agriculture :

SIR,—The Annual Provincial Exhibition being now at hand, I deem it my duty to furnish you with a brief statement of facts in connection with the progress and great importance of Flax culture in this Province. I have the honour of stating the success of farmers who have made the trial this year. In nine cases out of ten they have more than realized their anticipations, while those who have been less successful do not feel discouraged, but intend giving it a more favorable trial next year. The expense of labour attending this crop has hitherto been an obstacle in the way of the farmer going into its growth as extensively as he might otherwise do; and for the benefit of those who may yet be in doubts about its being a profitable crop, with the least amount of labor, I will endeavor to put in as brief terms as possible the statements of a few who have certified to the facts, in writing, which can be produced if necessary. A party who resides on a farm on the Lake Shore, within a short distance of Port Credit, states that he was paid for seven tons of flax, with seed on, at the mills of Messrs. Gooderham & Worts, Streetsville, the sum of twenty-eight dollars, the produce of two and a half acres of rich flats, having been previously in sod; and after only one ploughing, harrowed in the seed; hence the above produce was within a fraction of \$10 per acre. Another statement from the pen of Messrs. Gooderham & Worts, shows the produce of 27 acres to be 56 tons, and as in the former case, with seed on, at \$14 per ton, produced the net sum of \$781, or at the rate of \$29 per acre. In order that farmers may see the exact sum each item of labour and seeds costs, I annex a statement in plain figures. The greater part of this land was also sod, and received but one ploughing. It may be observed here that this was also a rich piece of flats, near the river Credit, in the County of Peel, on the farm known as the "Meadowville Farm."

By 56 tons of Flax at \$14 per ton,	.....	\$784 00
Dr.		
Purchased seed on 27 acres at \$1 05,	.....	\$28 35
Harrowing and rolling three times, 75c,	.....	20 25
1 1/2 bushels seed to the acre at \$2,	.....	54 50
Harowing after sowing, 20c per acre,	.....	5 50
Pulling and blading, \$4 per acre for the 27	.....	108 00
Hauling 3 miles to mill,	.....	40 50
Showing a profit of	.....	613 50

On the 27 acres, or in other words the sum of \$17.53c per acre. Some parties have had four tons to the acre. In Halton and other counties, three; but a safe estimate throughout, will be two tons, and the number of acres in Upper Canada from 10 to 15,000 in all, showing an amount at \$28 per acre, equal to the sum of \$120,000. It is here most important to notice that a large amount like this paid into the hands of the farmers so early in the season before they have time to convert any other crop into money, is of immense value to them in carrying out their harvest operations. Many presume if they commence growing flax they must give up wheat-growing altogether, but this is not so. For sake of argument, suppose there were 5 acres planted on every hundred to the extent of some twenty of the front townships, where there are something like 40,000 acres of arable land in each township, that would give us 40,000 acres of flax at the remunerative price say of \$28 per acre, the sum of \$1,120,000 would be realized. This may be extended over a much larger range of townships in time, and I have no doubt it will.

We will now turn our attention to the effect on the country of having a large quantity of raw material manufactured into marketable goods. Before going into minute calculations on this branch of the

project, we will illustrate the difference in the same amount of capital expended in the purchase of wheat and converting it into flour. We will take in round numbers \$20,000, invest it in wheat, send it to mill, have it ground, and no one is the wiser, other than the merchant, who first makes the purchase, the miller who grinds it, and the few teamsters who haul it to the nearest point for shipment, and there is an end to it. But let the same amount be invested in the purchase of flax, and before it can be brought into market an outlay of at least ten dollars an acre is required to convert the raw material into marketable goods, this amount is spent in the neighborhood in the employment of a class of the community who could earn little at any thing else, as the younger classes are competent to do a vast deal of the labour belonging to this branch of agriculture. In spinning and weaving there is also an additional amount of labour required, which causes a large expenditure. At Streetsville, where the latest move has been made in this direction, and a large amount of capital employed by the enterprising firm of Messrs. Gooderham & Worts, in the flouting mills, the works are carried on by a few hands, whereas at the linen factory and flax works, with a similar capital, some 100 or 150 hands are employed, and most of them learn the trade, and become adepts at the business. At all the other works now in a state of advancement, viz:—Norval, the Messrs. Perrine, county Waterloo, those of Messrs. Elliot & Hunt, of Preston, the mills at St. Mary's, and others of less note, are busily engaged this season, and a large number of hands find ready employment.

Finally, Sir, the prospects for this new branch of Canadian industry are most promising; not only as a source of wealth to the farmer, but the manufacturer in the face of his large outlay for machinery, &c., likely to have the most favourable results from the high price he is able to realize from his sale, and the demand for every description of linen goods in our own market; therefore this new project is well worthy the attention of the Board of Agriculture, as well as the Legislature; being yet in its infancy, only requires to be fostered and brought permanently under the notice of the public, especially parties of enterprise who have capital to invest. I would take the liberty of suggesting the great advantage to be gained by importing a quantity of "Riga" seed, either by the Board of Agriculture, or by the Government, which may be done through the Bureau of Agriculture, Quebec; as it is well known in all flax growing countries that fresh seed is always sought after. The kind in general use is "Riga," so favorably known in Ireland and other flax growing countries. This having been already tried by practical parties on a small scale in Canada, the produce of fibre was found to be, under the same cultivation, not less than six inches longer than that produced from native seed. This would only require to be done one year, as it is good for three generations, by using care, like all other crops to change from one locality to another. This seed could be put into the hands of the various millers already engaged in this business, and distributed to advantage among the farmers, the first cost would readily be obtained, and could be refunded, either to the Government or Bureau of Agriculture. The example has been set by the State of New York granting \$20,000 for the encouragement of the growth of flax in that State alone; and one of the leading linen manufacturers in Paterson, New Jersey, has been allowed to bring in machinery duty free from Ireland, to encourage this new and valuable branch of manufacture. While this is being done by our neighbors on the other side of the lines, we should not be behind in Canada. It is also desirable that information, either in pamphlet form, or by lecture, should be kept before the public, with a view of keeping their attention directed to this crop, all of which will tend to make a wider field for emigration, and create internal wealth in the country.

It may now be safely said the flax project is a perfect success, although the number of acres did not reach the amount expected this year, the number of tons will far exceed that of any former year, and will be followed up with a great excess in acres this coming spring.

The applications made from time to time for information on this subject, both by letter and personally, are largely on the increase, and those intending to put up additional scutching mills are numerous, so that in the future it will be no new thing to hear of a scutching mill being erected, or a linen manufactory established in any part of Canada, with prospects so flattering as they appear in any branch of agriculture this season, with peace and plenty at every door, and the bountiful hand of a kind Providence smiling upon us in this the land of our adoption.

JOHN A. DONALDSON,
Govt. Emigration Agent.

Toronto, Sept. 19th, 1865.

The Potato--About its History, Value, and Culture.

THE Common Potato, (*Solanum tuberosum*), is ascertained to be a native of South America, it having been found both in Buenos Ayres and in Chili. It is peculiar to a hilly and rocky soil, and flourishes near the sea shore. At the time of the discovery of America it was undoubtedly grown in the Andes of S. A., although unknown in Mexico, and only shortly after in the United States. The first colonists sent out to Virginia by Sir Walter Raleigh, in 1584, found it growing wild in that State. The wild potato has white flowers, its tubers are small, rarely attaining a length of two inches, and have an insipid taste. From these, by judicious cultivation, have sprung the almost innumerable varieties at present cultivated, and adapted to all climates and sections of the inhabited world. From Virginia it was introduced into England and Ireland in 1586. It was first planted by Sir Walter Raleigh on his estate near Cork; its first production was cherished and cultivated for food in that country before its value was known in England. In 1597 Gerard had this plant in his garden under the name of *Battata Virginiana*, and advised it to be eaten as a delicate dish, not as common food. In the seventeenth century it found its way over the rest of Europe, but its fullest reputation was not obtained till the nineteenth century, when its innumerable varieties shed their blessings on all the nations of the civilized world.

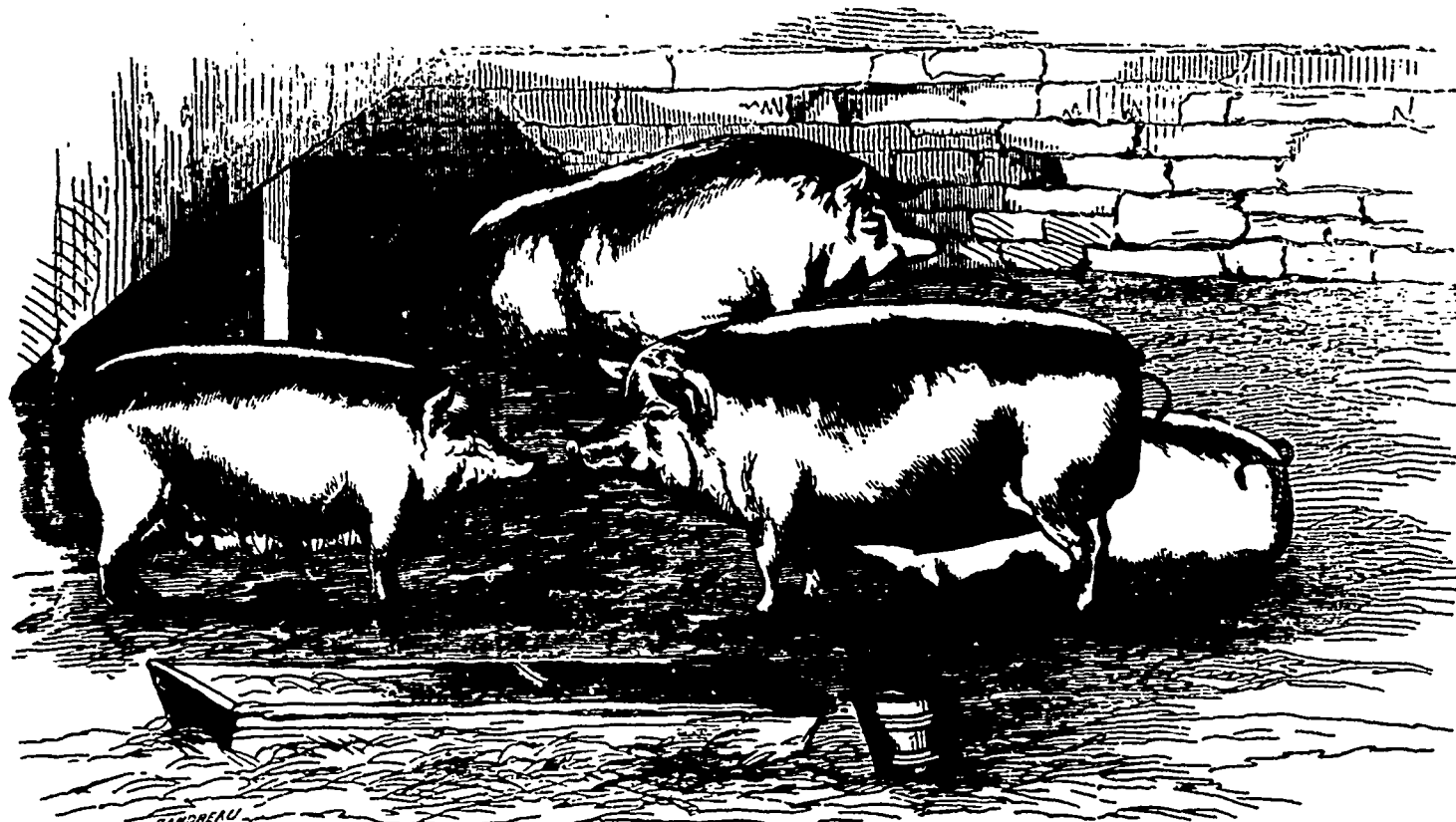
The potato is one of the most important farinaceous plants ever given to the world. There is no article of human diet that enters so generally into consumption, and from no crop that can be grown will the public derive so much nourishment as from this esculent. It is not only nourishing and healthy, but relished by nearly every one. We can in a measure comprehend its importance as food, when from its partial failure through disease or rot, as a few years since was the case in Ireland, starvation stared the inhabitants in the face, causing untold misery and distress. But for foreign supplies of food, actual starvation and death would have been the necessary consequence among a large percentage of the people. It would then seem that it should become a matter of much importance to nourish and cultivate with the nicest skill, a plant of such value in the domestic economy of man.

It would be vain in me to attempt to give particular rules for cultivation which might be universally correct; for what might be suited to one locality, or circumstance might, under different circumstances, in different localities, prove entirely unsuitable. A few things are agreed upon as applicable and should be followed everywhere. Potatoes flourish and give the best returns on high, rather dry ground, in good heart and tith, mellow soil; plant early; if manured in hill, good compost, well rotted and fine, is as good as anything, and vastly superior to fresh yard manure, which is, of the two, injurious to the crop; low instead of high hill culture; no working among after blossoming; dig when fully ripe, not leave them in the ground through the fall rains, allow them to dry so that the dirt will fall off before picking up; store them in a dry airy cellar in small instead of large bulks; keep at as low, even temperature, as practicable without freezing. These general rules if followed will give results that will satisfy the most particular, in the opinion of the writer who has seen them tried.—*Cor. Rural New Yorker.*

GRAIN that has been injured and become musty, may be restored to nearly its original sweetness by pouring boiling water over it, and permitting it to stand till cool. The scum which arises to the surface of the liquid during the process of purification, should be carefully removed. Unless the gluten of the grain has become chemically affected—which is rarely found to be the case, except in very old grain—every trace of mustiness will be removed, and the grain rendered fit for use.—*N. E. Farmer.*

GRAND FARMING.—The New York Post notes a corn field of one hundred and sixty acres, on the grand prairie, in the plowing, planting and cultivation of which no man walked a step. A rotary spader, drawn by four horses, and driven by a man upon the box, plowed the field to a uniform depth of eight inches, and gave such thorough tith that it was not necessary to use a harrow at all. A cornplanter, drawn by two horses, and driven by a man upon the box, next planted the seed. A cultivator drawn by two mules, one walking on each side of the knee-high corn, and driven by a man upon the box, completed the culture of a row at a single operation; and in the tool-house lay another machine, also to be drawn by horses, which will cut down the corn when it is ripe and lay it in regular rows, to be finally gathered by hand. But it is expected that by next year this machine will be so improved as to gather up the corn also.

FIRST PRIZE SUFFOLK PIGS, AT THE PROVINCIAL EXHIBITION LONDON, 1865.



The Property of Mr. JAMES MAIN, Trafalgar.

The Breeder and Grazier.**Premium Suffolk Pigs.**

Herewith we present our readers with an accurate portrait of a pen of Suffolk pigs, exhibited at the recent Provincial show, and prize-takers on that occasion. Our engraving represents a group of remarkably well-bred animals that competed successfully for the prizes offered for the best Suffolks under one year. The animals shown were only six months old, and, as we remarked in our account of this department of the show, "are admirably developed, showing the best points of the Suffolks to perfection." The parents of these pigs were also prize-takers, and their owner may very properly be congratulated on his success as a competitor in the pig classes. Mr. Main is a deserving young farmer of limited means, and his enterprise in importing and multiplying such excellent stock, richly merits not merely commendation, but much more substantial reward. We recommend any of our readers desiring pure-bred Suffolks to apply to him.

Fat versus Health.

The following is an extract from a clever letter in the *London Times* by the famous "S. G. O." Taking for his subject the disastrous cattle plague at present decimating many of the dairies in Britain, he points out some of the predisposing causes which invite and foster its attacks. Our selection forms the conclusion of his able and lengthy communication:

"It is a great mistake to suppose that highly privileged animals, living on the fat of dairy land, or mansion-house land, are in real natural health because they show no ailment, are portly and comely to look upon. Nature has, I have no doubt, very different views from our own about health. We were originally built to her order, and then left to our own devices. We have taken strange liberties with man and beast. We establish a certain standard of what we call health, that is a condition of body which will

bear decently the indulgences in the way of food in which we delight. With our beasts we feed for the market, making just as far as we can, all the powers of beast nature submissive to processes calculated to obtain ends of our own. Mr. Banting found woe in fat; penitent and reflective, he deplored his abuse of a too good-natured digestion; repenting, became prudent, treated his stomach with respect, regained the lesser corporeal calibre of his better nature. Great men and women made him their prophet, gladly gave up much daily bread, beer, and loveable matters of food, to reduce their bulk. Nature is very good natured; if you have only offended her, not actually maimed her, she only asks of you to do so no more; to eat in future for her sake, rather than your own.— Oh! that a cow had speech, that an ox could preach, a pig lecture! We should then learn from dairy, stall and sty, that there may be a clean coat, great appetite, much fat, and yet a constitution so artificially abused, that a feather may turn the scale; one puff from a blast of wind blowing over a dead beast miles away may infect this pampered blood, to at once disease and destroy. We wonder how so foul a guest could get into so fair a chamber; we ought to remember that artificial nature is after a sort nature perverted, nature unnaturalised, and therefore out of health, as such, in a condition in which its force must be weak as against imported disease; an animal kept for our special purpose in a certain condition of what we call health, may after all be in a state of disease, a state altogether unfitted to contend with any sudden constitutional disturbance.

"I once ventured to remonstrate with an agricultural enthusiast on the strange diet and treatment to which he submitted his farm animals. He pitied my ignorance. I was told his object was to get rich manure for his fields, and to clothe the creatures he fed with all the fat he could, as he sold by weight. I own I was of opinion, that any animal used as a mere manure mill, taking toll of what it ground in fat, could not be in a state of health. I was inclined to argue that oil-cake and saccharine vegetable food given to an ox, kept from exercise, in quantity sufficient to cover heart, kidneys, intestines, the whole

frame, with fat, until the animal appeared more fit for the tallow vat than the kitchen, must be an extraordinary liberty taken with every natural condition. I could not see that a pig fed with greaves and the boiled flesh of animals, killed to save them from dying, however fat and sleepy it might become, however valuable its outgoings, could be considered so much by weight of edible wholesome bacon. I had my own doubts how far manure thus obtained would grow sound crops. I was inclined to think the roots might be grown very large, but of such weak, forced cellular substance, that they would be liable to rot under atmospheric conditions in which roots, less artificially driven to size, would preserve health. In my ignorance, then and since, I have expected a day would come when we might purchase a fine Wheat head too dear; that continued choice of the best ear-producing seed, and its cultivation under the high pressure of strongly prepared manures, would lead at last to a plant unable to stand cold nights, heavy dews, and then we should have a Wheat disease.

"With regard to dairy cows, I firmly believe that in the best of dairies there is too much of experiment in the way of getting rich milk, a great deal of it, and a long continuance of milk-giving power. The pail supplants the calf; in a state of nature the calf feeds at intervals, and the udder thus is often relieved. Just as women do among the lower classes, for ends of their own, often nurse too long and suffer for it; so I believe we not only artificially over-stimulate the milk-giving power of our cows, but we are apt to force milk-giving action beyond the time that in pasture the calf would seek it, and therefore the mother afford it. We expect our cows to go on giving milk to the last moment we can by any means, however artificial, promote its secretion. They may look healthy in an aristocratic dairy, or they may be, as London cellar cows, giving their milk much under the same conditions as those in which thousands of lodging human mothers give theirs in crowded back lanes. I believe, in both cases, the animals are not in health, the poor cows and poor women are the most likely to breed typhoid disease, the richer are then quite likely to be infected by it

"It is in vain for us to speculate on the laws which really govern epidemics; they are mysteries which as yet defy all human interpretation. It is the old story of high authority, "In the midst of life we are in death." It were well for us if we sought the succour where alone we are told it is to be found. From time immemorial epidemics have prevailed; to the end of time they will prevail. We can study their symptoms, we can learn to predicate where they will flourish best. Whence they come, or whither they depart, is as mysterious to us as the travel of the wind. We may be content to offer to them food in man and beast, neglected, oppressed, and lowered to one and the same bad level; fed first on these they will feed yet on better food; they gather power from vile food to use it on those who fare sumptuously. The cows of a Cabinet Minister are not proof against the epidemic that slays the wretched collar cow. We may live to see cholera equally impartial. But, inasmuch as the gate opened first to these diseases is where life, human or bestial, is in a state of neglect, it is as well for us to keep our lanes, alleys, lodging-houses, &c., as clean as we know we ought to keep our cowsheds."

Sheep Husbandry.

Great Sale of Leicester Rams in Britain.

The romantic little border town of Kelso has, for upwards of a dozen years past, been celebrated for its great annual sale of rams. Situated so as to be easily accessible to the breeders of the shires of Roxburgh, Derwick, Selkirk and North Northumberland, the Kelso sale rings have from the first been well patronized. Until last year, the sheep entered for sale were not confined exclusively to Leicesters; but the growing popularity of this breed, in the districts above indicated, together with the unwieldy proportions already attained by the sale lists, determined the Union Agricultural Society—under whose auspices the auction is held—in devoting the sale entirely to this breed. On the present occasion, it took place on the 8th ult. Four commodious sale rings, flanked by long ranges of pens, were provided for the accommodation of the auctioneers, of whom there were no less than seven. The weather was unexceptionably fine;—the hot rays of the unclouded sun being tempered by a cooling breeze from the west. From the first, the competition was extremely animated, and offers were large and prompt. The sale of Lord Polworth's rams is generally regarded as the great event of the gathering, and when their turn came, we learn from an exchange, "the ring was surrounded by an eager and interested assemblage."

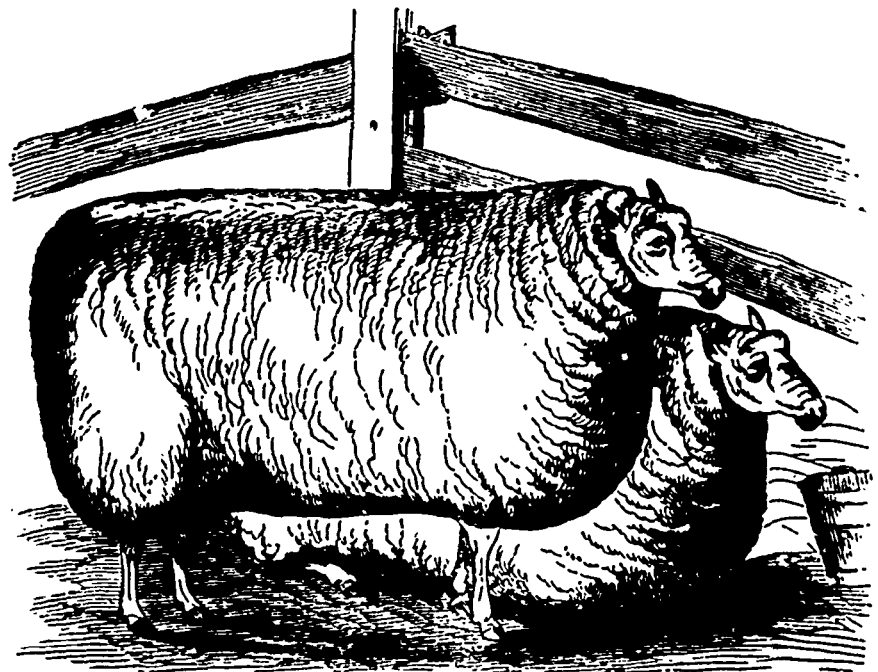
As examples of the prices going for single rams, we may mention the following, paid for specimens from that nobleman's flock:—£95; £83; £80; £75 £64; and £62. The average price of the entire flock being about £38. Several other animals, belonging to well known north country breeders, brought prices varying from £31 to £40. Several of the best rams were purchased for New Zealand, where the Leicester breed of sheep has obtained a firm position as wool producers—the quality of the wool being superior to the best grown in England. In that colony, the Leicester rams are not unfrequently put to Merino ewes and cross-bred Merinoes.

We regret that space will not admit of our appending the result of the sales which took place at the different rings. In connection with the returns of these great auction meetings, the *Kelso Mail* supplies some very valuable statistics, in regard to previous sales. A series of tables are given, exhibiting the highest and average prices, together with the number of entries during the last twelve years. We transcribe the last three:

Year.	No. of Rams entered.	Highest price.	Average do.
1863	2300*	£80 0 0	£21 6 3
1864	2100	70 0 0	26 19 9
1865	2006	95 0 0	37 18 10½

* Various breeds included.

FIRST PRIZE LEICESTER RAM, AT THE PROVINCIAL SHOW, LONDON, 1865.



THE PROPERTY OF MR. GEORGE MILLER, MARKHAM, O. W.

Prize Leicester Ram.

The accompanying illustration is a life-like portrait of the magnificent two-shear Leicester Ram, to whom the first honours were deservedly awarded at the late Provincial Exhibition. We need not dilate on the fine form and massive proportions of this splendid animal. At present he is unquestionably the finest ram of his age and breed in Canada, and—as we observed in our notice of Mr. Miller's sheep at the recent Fair—he "would do credit to any flock-master in any country."

The Dairy.

Cattle as Cream Producers.

COMPARATIVE MERITS OF VARIOUS BREEDS.

Within the last few years, owing to the high prices obtained for butter, &c., in the neighbourhood of our large towns, it has become a matter of importance that strict and careful attention should be given to the dairy produce of the farm; and I was therefore induced to undertake a series of experiments upon the various breeds of milch cattle generally kept in this country, with the view of ascertaining their comparative value as cream producers upon different descriptions of food; and after three years of careful investigation, I beg to lay the result of my labours before the public for the benefit of my brother farmers and others interested in the subject.

The results were obtained by the aid of the Ordinary cream test glasses, three in number, and checked by one made specially for me by Messrs. Negretti & Zambra, and carefully graduated to 60ths.

In the first experiment the cows were grazed during the day, having hay and chaff only morning and evening.

EXPERIMENT 1.

Breed.	Mean Temperature.	Percentage of Cream.
Pure Shorthorn.....	52°	15.32
" Ayrshire.....	54°	13.47
" Devon.....	50°	14.87
" Channel Islands.....	52°	18.65
Cross from Channel Islands and Short-horn.....	49°	17.92
Pure Brittany.....	53°	19.27

In the next experiment, where the breeds are placed in their order of merit, each cow had in addition one pound of linseed cake per diem.

EXPERIMENT 2.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	48°	20.00
Channel Islands.....	51°	18.98
Cross Breed.....	53°	18.21
Shorthorn.....	50°	18.05
Devon.....	49°	16.51
Ayrshire.....	52°	14.14

In experiment 3, each cow had, in addition to grass, a fair allowance of chaff, with one quart of brewer's grains, and one measure of Thorley's condimental food daily.

EXPERIMENT 3.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	50°	20.70
Channel Islands.....	49°	18.8
Cross Breed.....	50°	18.24
Shorthorn.....	51°	16.62
Devon.....	42°	6.67
Ayrshire.....	50°	14.09

In the following trial each cow had the same food as in the last, except that 1 lb. of Freeman and Harnden's Royal Patent Cake was substituted for Thorley's food.

EXPERIMENT 4.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	54°	20.00
Channel Islands.....	53°	20.00
Cross Breed.....	48°	19.65
Shorthorn.....	50°	17.9
Devon.....	52°	14.08
Ayrshire.....	51°	14.94

For the fifth experiment 1 lb. of palm nut meal (from Messrs. Smith, of Liverpool) was substituted for the cake; in other respects the food was the same as in No. 3.

EXPERIMENT 5.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	53°	21.50
Channel Islands.....	53°	19.08
Cross Breed.....	52°	18.20
Shorthorn.....	50°	18.56
Devon.....	51°	17.00
Ayrshire.....	54°	14.84

From the two last experiments it will be seen that the cows lowest in the scale as cream producers show a greater improvement when fed upon a material containing much fatty matter (palm meal containing upwards of 25 per cent of fat,) than upon food consisting of little fat, but much albuminous and mucilaginous matter, while the reverse is observed in the breeds higher up the scale.

In the foregoing experiments three trials were made at each time, and each experiment repeated three times, over a space of three years (the trials being made shortly after each calving,) and the same animals employed in all the experiments except the last year, when two of the cows proved not in calf. The figures, therefore, are a fair average of the animals I had under trial, and are the result of nearly 270 examinations.—G. T. GAFF, in *Scottish Farmer*

Driving Home the Cows.

BY MISS KATE FURNAM.

Out of the clover and blue eyed grass
He turned them into the river-lane;
One after another he let them pass,
Then fastened the meadow bars again.

Under the willows and over the hill,
He patiently follows their sober pace;
The merry whistles for once was still,
And something shadowed the sunny face.

Only a boy! and his father had said
He never could let his youngest go;
Two already were lying dead
Under the feet of the trampling foe.

But after the evening work was done,
And the frogs were loud in the meadow swamp,
Over his shoulder he slung his gun,
And stealthily followed the foot-path damp.

Across the clover, and through the wheat,
With resolute heart and purpose grim,
Though cold was the dew on his hurrying feet,
And the blind bat's flitting startled him.

Thrice since then had the lanes been white,
And the orchards sweet with apple bloom;
And now, when the cows came home at night,
The feeble father drove them home.

For news had come to the lonely farm
That three were lying where two had lain;
And the old man's tremulous, pained arm
Could never lean on a son's again.

The summer day grew cool and late;
He went for the cows when the work was done;
But down the lane, as he opened the gate,
He saw them coming one by one.

Brindle, Ebony, Speckle, and Boss,
Shaking their horns in the evening wind;
Cropping the buttercups out of the grass—
But who was it following close behind?

Loosely swung in the idle air
The empty aloer of army blue;
And worn and pale from the crisping hair,
Looked out a face that the father knew.

For Southern prisons will sometimes yawn,
And yield their dead unto life again;
And the day that comes with a cloudy dawn
In golden glory at last may wane.

The great tears sprang to their meeting eyes;
For the heart must speak when the lips are dumb,
And under the silent evening skies
Together they followed the cattle home.

TOUCH.—The touch may be good or bad, fine or, as it is termed, hard or mellow. A thick firm skin, which is generally covered with a thick-set, hard, short hair, always touches hard, and indicates a bad feeder. A thin, meagre, papery skin, covered with thin silky hair, being the opposite of the one just described, does not, however, afford a good touch. Such a skin is indicative of weakness of constitution, though of good feeding properties. A perfect touch will be found with a thick loose skin, floating, as it were, on a layer of soft fat, yielding to the least pressure, and springing back towards the fingers like a piece of soft thick chamois leather, and covered with thick, glossy, soft hair. Such a collection of hair looks rich and beautiful; and seems warm and comfortable to the animal. It is not unlike a bed of fine soft moss, and hence such a skin is frequently styled "mossy." The sensation derived from feeling a fine touch is pleasurable, and even delightful, to an amateur of breeding. Along with it is generally associated a fine symmetrical form. A knowledge of touch can only be acquired by long practice; but, after having acquired it, it is of itself a sufficient means of judging of the feeding quality of the ox: because, when present, the properties of symmetrical form, fine bone, sweet disposition, and purity of blood, are the general accompaniments.—*Fullerton's Ox and The Dairy.*

Veterinary Department.

Diseases of Joints.

Rheumatic inflammation of the joints is not at all uncommon amongst young colts, calves, and lambs, and consists in a chronic inflammation of the structures entering into the formation of a joint; and if of long continuance it is followed by ulceration of one or more parts. The first symptom generally observed is a swelling of one or more of the fetlock joints, which is invariably accompanied by pain, heat, and lameness, with a considerable degree of fever. This disease generally commences in the lower joints and extends upwards. The fever, in some cases, becomes so severe as to frustrate all hopes of a favourable termination. The appetite is gone, and, as a consequence, the poor animal becomes dreadfully emaciated, and may be seen lying day after day with intensely swollen joints, while the respiration is increased, causing heaving of the flanks, &c. As the disease advances, sloughing of the skin takes place, and the ligaments and tendons become exposed; the synovial membrane ulcerates and gives way, along with the capsular ligament allowing the synovia, a joint oil, to escape.

The causes of this disease are commonly connected with an undue degree of cold, combined with damp or insufficient nutrition—it may be said to be a sequel to any disease which tends to depress the animal frame.

Treatment.—If observed in the early stage, this disease may be entirely cured; but if sloughing has occurred, and the ligaments and tendons exposed, it is useless to undertake the treatment of such a case with any hopes of success. Encourage the patient to take a moderate quantity of nourishing food. If occurring in a sucking colt, give the mother plenty of good succulent food, as it increases both the quantity and quality of the milk. In regard to local treatment in the early stage, soothing applications should be used, such as fomentation, poultices, &c. Stimulating and blistering liniments are very injurious, as in the first stage there is a great amount of irritation in the part already. Internally, tonics may be used with benefit. In some cases the acute symptoms pass off, and the swelling remains. We would, in such a case, recommend the moderate use of stimulating liniments.

There is another condition of the joints termed standing or knuckling over in the joint. It is seen in the fetlock, when it may only affect the two hind, and, in some cases, the whole four legs. The great cause of knuckling is by working horses too young, thus causing the joints to start forward in the direction the animal throws his limb. If this condition is continued for a long time it becomes habitual. When once confirmed it rarely, if ever, gets completely removed, yet it may be, to a great extent, if the animal is kept perfectly quiet for some time, and then put to moderate work.

In the treatment of this abnormal condition of the joints, sweating blisters cautiously used are often attended with benefit. Knuckling, unattended with any morbid growth or otherwise diseased state of the joint, is not considered an unsoundness.

Windgalls is another affection of the joints, which, in many cases, can hardly pass under the appellation of unsoundness. It is a very common occurrence amongst horses, and, in fact, any horse which has done any amount of work has windgalls more or less. If the other properties of an animal are good, this should not lessen his value much, unless they are, as in some cases, found to be indications of disease, as for instance when they are in the immediate neighbourhood of the fetlock joint. When it forms between the suspensory ligament and the tendon, it consists in distension of the bursa through which the tendon passes in going over the fetlock joint. When placed in front of the suspensory ligament, between it and the cannon bone, it is always associated with an in-

crease of synovia on the fetlock joint. Particular attention should be paid to the seat of a windgall, and also to its condition. If it feels hardened and tense with the fetlock puffy all round, and situated in the true fetlock joint, it should be looked on with suspicion. If, on the other hand, it is soft, and disappears on pressure, and the joint otherwise well proportioned, and situated on the bursa of the tendon, as a general rule it is not productive of any harm. These puffy tumours known as windgalls often come on very rapidly, especially in young horses out of condition. If they are put to a hard day's work, and on the following morning shew windgalls on one or more legs, they are caused by the excessive demand of the previous day. The process of absorption not being equal to that of secretion, the over abundant quantity shews itself in the form of thin puffy tumours. If treated in this stage they may be completely removed, but if allowed to become confirmed, they can hardly ever be cured. Allow perfect rest, and tie up the parts firmly with bandages dipped in cold water. This continued pressure promotes both absorption and evaporation. After applying the bandages for some time, blistering liniments are useful, but should not be applied too severe.

The Apiary.

Management of the Apiary for October.

If everything has been properly attended to in September, but little is required in this month. Any boxes of surplus honey that have not been taken off should be removed now. Stocks that have not honey enough to winter them may yet be fed, and no time should be lost in doing so. If drones still linger about a hive, it is evidence that it is queenless, or has a drone-laying queen, and should be examined at once. In either case it should be taken up or a weak stock may be given to it; by so doing, the stock may be saved, and the weak stock made strong. Keep a good look out for robbing, especially on warm, sunny days.

FEEDING BEES IN AUTUMN.—On this subject the *Gardeners' Chronicle* has the following:

"The food we prefer for autumnal feeding is composed of 6 lb. of loaf sugar, 4 lb. of water, and 1 lb. of honey clear run from the combs. The sugar and water are boiled together for about five minutes after the boiling heat has been reached; when removed from the fire the honey is added, and stirred in while the liquid is hot. The food must be allowed to cool before it is given. The addition of honey makes the food particularly palatable to the bees. They will frequently take down from a well constructed feeder, many pounds in the course of a single night. When the object aimed at is the supplying of a sufficient quantity of food to a hive already well filled with combs, it is desirable that it be administered as speedily as is consistent with safety from the attacks of robbers; that is to say, as much may be given each evening as can be taken down by the bees during the night, and continued until the hive is made up to a proper weight. On the contrary, if the hive is deficient in combs, a smaller portion of food may be supplied on each occasion, and the feeding be continued for a much longer period. The hive should be weighed both before and after, and no reliance be placed on the actual amount of food to which it has been treated. The bottle-feeder is the one most to be recommended. An ordinary pickle-pottle is filled with the liquid; the mouth is covered with very fine net, or coarse straining cloth; a piece of perforated zinc is placed over the hole in the hive, and the bottle inverted over it. If properly done, not a drop will escape into the hive, although the bees are enabled to take down the liquid very rapidly. A smaller sort of bottle may be used for feeding of a more limited character in autumn and in spring. All feeders should be closely covered over so as to avoid, as much as possible, attracting the attention of robber bees. If thus protected, it is not necessary that the bottles should be removed every morning.—It is well, however, to contract the entrances of all hives that are being fed, which will enable the bees more effectually to repel intruders."

Entomology.

The Turnip Caterpillar.

SOME few weeks since we received a communication from a valued correspondent—Mr. A. Fisher, of the Windfalls of Blenheim, County of Brant, C. W.—respecting the ravages committed among the turnip crops in his neighbourhood and the adjacent township of Dumfries, by a multitude of small caterpillars; we have also been informed of their occurrence in the vicinity of St. Mary's, C. W. We regret that we have been obliged to defer affording him the information he desires regarding the name, etc., of this injurious insect, in consequence of our space having been so much engrossed by the all-absorbing topic of the recent Provincial Exhibition; however, what we now present to our readers, even though too late, perhaps, to be of much advantage this season, will we trust, prove serviceable, should these caterpillars make their appearance another year.

The flies he sent us, and which he considers to be the parents of the eggs from which these larvæ are produced, prove, on examination, to be specimens of an (*Ophion purgatus*, Say), which, like all the rest of its family, is parasitic in its larval state on other insects. What he supposed, therefore, to be the depredators, were, in reality, their greatest enemies and our true friends, to whom, indeed, we no doubt owe it, that these noxious caterpillars have not spread over a greater portion of the country. His account, however, of the habits and appearance of the caterpillars affords us much valuable information, as he has been a careful and patient observer of them. He states that "the eggs are deposited on the under sides of the leaf, and vary from about 150 to 200 in number; they are of a light green colour, arrayed in symmetrical order on the under part of the leaf, generally near the tip, and fastened securely together and to the plant, by a viscous substance. These eggs, deposited at night, are hatched by the heat of the sun in a few days, and from them are produced numbers of little worms, at first of a pale greenish yellow colour, and less than an eighth of an inch long. These remain for a day or so on the leaf, and at first almost on the spot where they were hatched, eating only the under side of the blade; and in this way the numerous frayed leaves are caused, which is the first sure sign that the pestiferous insect host is upon the crop. In damp weather the caterpillars grow at a great rate; but from comparing their habits and progress last year with this, I am of opinion that the late scorching draught had the effect of considerably retarding their progress. This, at least, is true, that at this date last year (and the plague spots appeared first exactly at the same time this year, viz: about the 18th of August,) the worms had attained to nearly an inch in length; whereas I have not seen any of this year's brood above a quarter of an inch. Last year they committed most serious ravages in Dumfries, eating up first the leaves, and then the heads. They continued in force up to the time of the October frosts, and indeed till the turnips, or what remained of them, were lifted. In fact, if this creature is allowed to go on and multiply, it will become a pest no less fatal to the turnip, than the midge is to the wheat. The only way in which it can be kept down is by picking off the leaves when they appear infested. In this way a couple of children will destroy literally hundreds of thousands in one day, as the various broods which afterwards spread as single and independent foragers over the whole field, are at first congregated on one leaf. Many of my farmer friends have this year adopted this plan at my recommendation, and the result is that they have greatly, if not in all cases entirely, got rid of the vermin. Hand-picking, then, I believe is the only effectual remedy, and it ought to be resorted to at once, for the caterpillar in favourable circumstances grows at a great rate, and attains the size of an inch and a half, consuming every day more

than ten times its own weight, either of the leaves or bulbs of the turnip, which seem to be its special, if not only food. The end of this creature in the caterpillar form is a chrysalis, which state it assumes in October, and drops into the ground, where it remains till the next year, to come forth in multiplied armies in the winged state."

Such is Mr. Fisher's account of this destructive insect. From it we should judge (not having seen the larvæ or imago, as they have not occurred in our neighbourhood), that it is identical, or, at all events, an allied species, with the turnip-caterpillar of England (*Athalia centifolia*, *Albin*), which has often proved to be a most obnoxious insect enemy. It belongs to our old friends (or rather foes), the *Tenthredinidæ*, or saw-flies—a family of Hymenoptera to which we have before referred in this department of THE CANADA FARMER, and in which a large number of our most destructive insects are included. So long ago as the year 1720, this insect was observed in England, and it is recorded that whole fields were at that time destroyed by it; in 1782 it was so numerous that many thousand acres were obliged to be ploughed up; and again in 1835, '36, and '37, it was exceedingly abundant and injurious. The fly is described by Professor Westwood as "a pretty yellow and black species, which first appears about the beginning of June, depositing its eggs within the parenchymatous tissue of the leaf, introducing her saw between the edges of the cuticle; and from which, in five or six days, the larvæ are hatched."

With regard to the best remedy for counteracting the ravages of these insects, we quite agree with Mr. Fisher in giving the preference to hand-picking; in very many cases, indeed, it has been proved to be the most effective mode of getting rid of insects. Children can be employed at a trifling expense to collect and destroy the caterpillars, and if this is done, as suggested, when they first appear upon the leaves, the numbers that can be thus got rid of in a short space of time, are almost beyond computation. Another remedy, kindly transmitted to us by a correspondent—Mr. Joseph Howes, of Missouri,—is the following:—"Take a pound and three quarters of soap, a similar quantity of the flower of sulphur, two pounds of camphoons or puff ball, and fifteen gallons of water,—when the whole is well mixed by the aid of a gentle heat, sprinkle the insects with a small watering-pot, and it will instantly kill them." He also states that simple soap-suds have been found efficacious.

A remarkable circumstance in connection with these insects, has been mentioned by a writer in the "Philosophical Transactions." He states that the turnip saw-flies have been observed at times, proceeding in vast numbers from one part of the country to another, and even taking flight across the sea. A farmer declared to him that he saw them arrive in clouds, so as to darken the air; while the fishermen asserted that they had repeatedly seen flights of them pass over their heads when they were at a distance from land; and on the beach and cliffs, they were in such numbers that they might have been taken up by shovelsfull. Three miles inland, they were described as resembling swarms of bees. This was on the east coast of England, many years ago. If this narration be correct, their singular propensity for emigration may account for their appearance in such widely-separated parts of the world, and at such irregular and unaccountable periods of time.

BIRDS AND BATS.—We know of nothing more cruel and heartless than the wholesale slaughter of the small birds so common in our towns. The farmer owes more to the birds than he is apt to admit. They destroy innumerable insects which would prey upon his fruits and injure his crops. If the robin, the cherry bird, the cat bird, or any other, is disposed to make a dive at the strawberry bed or the cherry tree, there are modes of preventing them from taking all. If they want a few, better let them have them than to kill them. Don't destroy the bats. They do an untold amount of good by catching the night-flying moths, some of which are the parents of the most destructive worms and insects; nor do they do any harm. There was a time when we, in common with most other boys, made a practice of striking down every bat we saw, with a sort of feeling that we were doing a good thing. It was a mistake, and we are sorry to have a single bat on our conscience. Bats do good and only good, and the farmer and the farmer's boy should be the last to harm them.—*New England Farmer*.

The Household.

Rules for Home Education.

THE following are worthy of being printed in letters of gold, and being placed in a conspicuous position in every household:

1. From your children's early infancy inculcate the necessity of instant obedience.
2. Unite firmness with gentleness. Let your children always understand that you mean exactly what you say.
3. Never promise them anything unless you are sure that you can give them what you promise.
4. If you tell a child to do anything, show him how to do it, and see that it is done.
5. Always punish your children for wilfully disobeying you, but never punish when you are angry.
6. Never let them perceive that they can vex you or make you lose your self command.
7. Never smile at any of their actions of which you do not approve, even though they are somewhat amusing.
8. If they give way to petulance and temper, wait till they are calm, and then gently reason with them on the impropriety of their conduct.
9. Remember that a little present punishment, when the occasion arises, is much more effectual than the threatening of a greater punishment should the fault be renewed.
10. Never give your children anything because they cry for it.
11. On no account allow them to do at one time what you have forbidden, under the same circumstances, at another.
12. Teach them that the only sure and easy way to appear good, is to be good.
13. Accustom them to make their little recitals the perfect truth.
14. Never allow of talebearing.
15. Teach them that self-denial, not self-indulgence, is the appointed and sure method of securing happiness.

WHAT IS SALERATUS.—Wood is burnt to ashes, ashes are lixivated, ley is the result. Ley is evaporated by boiling, black salts is the residuum. The salt undergoes purification by fire, and the potash of commerce is obtained. By another process, we change potash into pearl ash. Now put these in sacks and place them over a distillery wash-tub, where the fermentation evolves carbonic acid gas, and the pearl ash absorbs it and is rendered solid; the product being heavier, whiter and drier, than the pearl ash. It is now saleratus. How much salts of ley and carbonic acid gas a human stomach can bear and remain healthy is a question for a saleratus eater. Some people eat saleratus will not harm the stomach. It is a ley.—*Er*.

A USEFUL HINT.—A person leaving a warm room, and going into a colder, or into the open air, should carefully close the lips for a few minutes, until he has become, as it were, acclimated to the colder atmosphere, and breathe through the nostrils alone, by which the cold air is made to traverse the long, warm, nasal passage before it reaches the windpipe and vocal organs; and its temperature being thus raised, one common mode of "catching cold" is avoided. Most persons upon leaving a warm church or hot concert room immediately open their mouths to discuss the merits of those they have just heard, and many a severe cold is taken. It is equally common, but still worse, for a public speaker to do so, for his throat is more heated from his recent exertions, and he may, and often does, become hoarse for a month by such apparently trifling neglect.—*G. W. Smith's Clerical Education*.

STRAWBERRY SHORT-CAKE.—The following directions for making a strawberry short-cake are from Mrs. Noyes of the Oneida Community:

For a single cake (keeping, of course, the same proportions for larger quantities) take half a tea-cupful of sour cream; one cup of sweet milk; a small half tea-spoonful of saleratus, and flour enough to make a mixture somewhat softer than a common pie-crust. Spread it by patting with the hand (never with the roller) into a cake of the size of a pie-plate. Bake in twenty minutes. Sprinkle the cake while hot from the oven; spread the halves with butter (liberally, if it is good,) and cover them with strawberries, previously hulled and mixed with plenty of sugar. If the strawberries are large it is best to cut or smash them a little, so that they may be well sweetened. The cake thus prepared should be set in the oven two or three minutes before it is served, to harmonize the temperature of the berries with that of the cake.

"Of this dish," says "The Circular," from which the recipe is copied, "it may be said with more propriety than of Isaac Walton's baked fish, that it is too good for any but very honest people."

Poultry Yard.

The Exhibition Points of the Spanish Fowl.

A RECENT issue of the *Scottish Farmer* contains a highly interesting and critical article on the exhibition points of the Spanish fowl. Although it is somewhat long, we quote it nearly unabridged, believing it to be well worth the careful attention of our poultry rearers and fanciers. After some introductory remarks, our able contemporary proceeds to state that the marks of excellence of such a specimen as would be entitled to compete at a first-class show, with reasonable prospects of success, are frequently set down as very numerous.

"In some books we are treated to minute descriptions of the bill, and of the size, colour, and splendour of the eye, and so forth. Now, provided there be no deformity or disease about the bill and eye, we can assure our readers, and especially the owners of Spanish fowls, that these two members of the body can never destroy the chances of successful competition, when other essential points are of high excellence. These points in order of value are—1. A *pare white* face, which begins from among the feathers close to the base of the comb, and terminates in the lower extremity of the lobe or white lobe; bag of skin, which rises from the under part of the cheek and extends back round the ear and forwards to the wattle on both sides of the face. Each wattle may be considered a sort of red peninsula of its own lobe, and hanging slightly lower, being also, like it, formed of a double skin, not bag-shaped, but folding slightly outwards. This frontal receding of the wattles from one another exposes the skin of the throat, which being also white, and considered a nice point, the larger the portion of it seen all the better. The surface of the whole of this white face cannot be too smooth, and its depth and width are if possible still more important. The facial dimensions, indeed, should be something astounding in these days, if a walk over be contemplated, or even a victory won in a *canter*. The lower cords in the upper face, or fol in the lobes, and the rounder and more regular the white ring over the eye, the more likely will the lucky wearer of such even features take a high position in the show room. In a word, the white face should be *stainless, smooth, even, well-proportioned, and of wonderful extent*.

2. The comb should be erect (absolutely perpendicular if possible), higher and longer than in any other breed, of a bright red colour, regular serrated, and nicely balanced on the head. The balance, or firm seat of the comb, is much aided by its *thickness, particularly at the base*, or point where it rises from the back of the head. To be called regular, the serrations, from being very slight in front, should gradually deepen towards the hinder part of the comb, where they suddenly run almost out, and not unfrequently disappear altogether. The teeth or *peaks* formed by these serrations ought to be single, like the entire comb, sprigs in any direction being very undesirable. Such excrescences, however, will appear in well-ordered yards, but must, to guard against disappointment and pecuniary loss, be studiously got quit of by every breeding combination within our reach, else the vicious tendency will soon defy the correction even of surgical appliances. A smooth comb is, of course, preferred to a rough one.

3. The body and legs are, in proportion to the weight, longer than in the other large breeds; and the neck should correspond, being more genteel, especially in the hens, than is seen in any other class, except the game fowl, which is peerless for elegant shape.

4. The carriage is upright and majestic, and the general demeanour is grave and dignified, attributable in great measure to the weighty head ornaments and limited vision, which cause him to step with caution and throw his head backwards, to relieve so far his burdened neck. Just as his stately limbs and open proportions of body have assigned him the same place among poultry that a *greyhound* holds among dogs, so from his carriage the Spaniard has been styled the *aristocrat* of the poultry-yard (a rank, we humbly think, more justly due to the game fowl); while, looking to the fair apparel about his cheeks

and neck, together with his general reverend appearance, we have ourselves pronounced him the *clergyman* fowl.

5. The plumage should be velvety black, or more correctly, of a metallic green hue, and the legs a slate colour up to a dark blue, but they are, especially in young birds, often decidedly black, and this, too, in specimens of first-class excellence.

6. The tail is ample, and long in the sickle feathers; and the saddle feathers, like those of the hackle, are superlative and abundant, the Hamburg alone excelling the Spaniard in *fullness of ornamental plumage*.

7. Large size, although by no means indispensable to success, is to be carefully sought for, as, other points equal, it would unquestionably turn the troubling balance against a pen not possessing it in favour of bigger antagonists. All pure breeds, besides, have a decided tendency to declension in this respect, unless continually guarded against. These points are amply sufficient, and more than sufficient to distinguish an exhibition Spaniard. If, indeed, the first and second are in perfection, and the fowl is in good order, the remaining points are almost sure to be present also, supposing all physical deformity to be absent. It is more trifling to speak against feathers on the legs or stunted tails, for these and such like faults cannot be present to a so-called Spanish fowl in good condition without other unmistakable proofs of base blood, in the shape of a foul and contracted face, or miserable comb and wattle. To render the description more tangible, we have measured the leading points of a cock which may be regarded in the main as a fair sample of his class; also a hen of very high development, but rather over bred as regards fullness of face laterally, being in this respect (facial width) a sort of curiosity. Before giving the figures we may state that the cock is rather low on his legs and his upper face is a little smaller than our favourite standard. In quality his face is thin or *skinny* rather than fat, intermediate between a warty and a paper face, but nearer the latter than the former. His comb is from front to back half an inch longer than most erect ones. The measurement of his face, then, is at present, in spite of the moult which has been upon him for the last fortnight, $\frac{3}{4}$ inches deep in all space above the eye, $\frac{7}{16}$ of an inch; lobes, $\frac{3}{4}$ inches wide as the bird stands, but $\frac{5}{8}$ spread laterally with the hand, that is, as the face appears when the head is drawn backward, the lobes thus falling out towards the shoulder owing to the projection of the neck. It is frequently so seen when the cock stands resting in his ran in a sleepy posture—and many tame well-trained birds stand so in a show-pen from ten to twenty minutes at a time—quite regardless of visitors gazing at his stupendous face. The head is $\frac{2}{3}$ inches thick, rather genteel for the other dimensions, but the face is all the more likely to last unimpaired on this account. The comb, containing six distinct serrations, rises $\frac{2}{3}$ inches above the base, and is $\frac{5}{8}$ inches long, reaching well down the back of the neck. Shank, from the knee to the point of middle toe, $\frac{5}{8}$ inches, the entire length of leg being $\frac{11}{16}$ inches. Length of body from point of bill to extremity of tail, $\frac{30}{16}$ inches. Height of bird, standing erect, $\frac{25}{16}$ inches, a measure frequently surpassed by two inches, and in a few instances by still more.

So much for the cock. The hen, as in most breeds, is devoid of all cock feathers, is $\frac{1}{16}$ lb. lighter in weight, and her comb, being thinner but required to be very large, tumbles over one side of the face, sometimes by a double fold in front, partly over both sides; the face not nearly so fat or deep as the cock's, the lobe even of good average hens only attempting to bag. Some remarkable specimens are in facial extent little inferior to cocks of average development. The face of the hen referred to above is three inches deep, three inches broad, or $\frac{4}{4}$ when spread out flat, and the head is $\frac{2}{3}$ inches thick; comb, $\frac{2}{3}$ inches high, $\frac{3}{4}$ inches long, and having five distinct serrations. On comparing her with the cock, it will be seen at once that for her sex she can boast of far higher development than he, her thickness of face being literally $\frac{1}{2}$ inch greater than his. Her body, we are happy to say, is also larger than that of most Spanish hens. It shall be ours, life and health permitting, to discover what quality can be produced intermediate between the properties of these two fowls. The production of a progeny superior to either will be a rich reward for the anxious labours of two or three breeding seasons. Would that we may strike the golden mean."

CURING HENS OF SITTING.—Mr. Duren, of Woburn Mass., writes the *New England Farmer*, that he cures his hens of sitting by shutting them in a tub with an inch or two of water on the bottom, during the day. Put them on the roost at night, and if not cured, treats them to the water remedy for another day, and they will be glad to stand on their feet.



Summer Fed Hogs.

To the Editor of THE CANADA FARMER:

SIR, - In your issue of 15th ult., you gave the purport of a letter from "Farmer," wherein he says that there is only one person in Toronto (Mr. CURT) and not any in Hamilton, who is ready or willing to purchase a single grunter from May to September. I presume I may leave the Hamilton pork packers to speak for themselves, as they are as ready with the pen as the cleaver, but I must say for myself that I am anxious now to buy 200 or more good fat young pea-fed hogs per week, but I know not where to get them in Canada, and, consequently, like my friend and namesake in Hamilton, am obliged to buy, in Chicago, thus sending money to the States, which should be kept here. "Farmer" makes an effort to be very witty, by remarking ironically that the communications on this subject that have appeared in your periodical, have been full of disinterested advice to farmers. Now does not the writer of that article know that the true principles of trade are mutual advantage. If the farmer gets 7c. per lb., live weight, for his hogs, is he not benefited by the transaction. Of course the pork packer hopes to realize a profit, but after all it is very risky, while the farmer's is certain. To leave your correspondent "Farmer" for the present, - I am sure the farmers generally read our letters with attention, and though they are slow to adopt the suggestions therein contained, they are coming round. Canadian bacon and pork is rising in the esteem of merchants and consumers in England, and if we could only procure a large supply all the year through, it would soon take rank with the Irish and Continental. Unfortunately we are only able to send them a little in the winter, and by the next season they forget what it was. Just as the retailers there and their customers begin to appreciate it, the supply ceases.

Now a word to the farmers of Canada.—If you will raise and fatten plenty of *well bred* hogs, to weigh 200 to 300 lbs. alive, at 9 to 12 months old, we will be in the market for them all the time, and surely at present prices (which will be high for some time to come), nothing will pay better. I suppose you will admit that any attention on your part that will enable the dealer to give you a higher price will be to your benefit; if so attend to the following: Breed from good stock, castrate the boars and spay the sows not intended for breeding at a very early age, say 7 or 8 weeks, feed them well, don't let them run around, then take them alive to some of the pork packers.

WILLIAM DAVIES.

TORONTO PACKING HOUSE,
Sept. 12th, 1865.

BOTANICAL COMMUNICATION RECEIVED.—"J. C.'s" letter duly reached us minus the leaves said to be enclosed. It is obvious, therefore, that we cannot publish their names, unless our correspondent forwards us another selection.

NAME WANTED.—If "A Subscriber," who recently addressed a letter to us from Co. of Peel, respecting the non-receipt of a Bee-Book,—for which he had forwarded the payment,—will favour us with his name and P. O. address, we will investigate the matter in the proper quarter.

FLAX MILL WANTED IN LINDSAY.—"John Knowlson," of Lindsay, writes as follows:—"There is a good opening for a flax mill in the town of Lindsay, county of Victoria, the land in that section being admirably adapted to the growth of flax. A few farmers in the vicinity of Lindsay have each grown a few acres, and are well satisfied with the result, and a considerable breadth of land would no doubt be sown a future, if the farmers saw a prospect of a secure mill being erected within a reasonable distance. Those who have grown flax the present season, have to draw their flax to Millbrook, a distance of thirty miles and upwards, there being no mill or market nearer."

BEECH NUTS FOR HOGS.—"Samuel Nash, of Hamilton, writes as follows: "I am informed there is the greatest crop of beech nuts this fall that has been known for many years. I am engaged in packing pork here, and the price is enormously dear, and it would be a pity if any persons who have hogs for sale, should, through ignorance of the matter, allow them to feed on beech nuts, and lose the opportunity of selling their hogs at a splendid price. Beech nut pork, for manufacturing purposes, is of no value only for the amount of grease it will produce or oil. I think you might render a service to your readers by giving them a timely caution just at the present, either in your own words, or by the insertion of mine."

DRAIN DIGGING MACHINE AND CULTIVATOR.—"John Walmsley" writes from Berlin, regarding this subject, as follows:—"In the issue of your valuable journal of August 1st, a communication appears, signed "Edwin Brown," asking what has become of Chase's drain digging machine, invented and exhibited some three or four years ago. With regard to Chase's machine, I can give him no information, but I would simply say to Mr. Brown, and to all interested in the important subject of draining, that I have exhibited, at the last Provincial Exhibition at London, a model of a drain digger, for which I was awarded, by the Association, a premium of \$60, and which, I am convinced, will answer the purpose for which it was intended. I do not claim for my invention that it will lay the pipes and cover them up, but I do claim for it that it will thoroughly clean out the drain, depositing the dirt on either side of it. With regard to the drain digger, I may further state that I am about perfecting an arrangement by which it may be attached to my working cultivator, as the frame work and driving gear, in their main features, in both machines are alike. I have already patented the revolving cultivator, as also the principles of the drain digger, and will be happy to afford your correspondent, or any other persons interested in inventions of this kind, all the information in my power, by their applying to me by letter at Berlin."

"THE CANADIAN BEE-KEEPERS' GUIDE."—"Briar," of County of Carlton, writes as follows:—"I have perused with much interest the "Canadian Bee-Keepers' Guide," by J. H. Thomas, and think it just what was needed, being short, plain, and practical. Being a tyro in bee-keeping, it is not in any cavilling spirit I make the following remarks on the difference of opinion between Langstroth and Thomas, on many important points; but in the hope of eliciting the truth. First, as regards the shape of the hive. Although Langstroth has stated as quoted he adds, 'a hive long from front to rear, and moderately low and narrow, seems on the whole to unite the most advantages;' and in carrying out this idea makes his hives only ten inches deep. Langstroth again says: 'If moveable bottom-boards are used, it is next to impossible to prevent the moth from laying her eggs between them and the edges of the hives.' Thomas asks, 'Will it make bees more irritable to smoke them often?' and answers, 'No.' But Langstroth says: 'After using smoke sometimes two or three times a day, to open a hive upon which I was experimenting, the cunning creatures, instead of filling themselves with honey, rushed out to attack me.' This last fully accords with my own experience. After being undisturbed for a time, I can frequently handle them without smoke; but after smoking, they will sometimes not allow me to approach the hive. Again, Thomas asks, 'Do bees ever die of a disease called dysentery?' 'No.' But Langstroth frequently mentions it as the effect of improper ventilation, dampness, sour honey, and want of water in winter. It is rather perplexing to the beginner to find such standard authorities differing."

CHIT-CHAT.—"R. N. B." of Niagara, writes as follows on sundry topics:—"Talking a short time ago with a friend, he remarked that cutting clover seed the first year after sowing had a tendency to produce annual plants. The idea was new to me, as it may be to many of your readers, and if true is of great importance, for if we produce an annual clover plant by cutting seed the first year, we had better take seed only from the second or third year's growth, as by that time the annual plants will have died out. Perhaps some of your readers will give us their opinions on the subject."

While on the subject of seeds, I think it will be better for each one to raise his own seeds, such as turnip, carrot, cabbage, &c., unless we can get some honest, enterprising person, to enter into the business, for imported seeds are fast losing their value. Some years ago when you bought imported seed you were sure of getting a good article, but now we hear constant complaint of cabbage and cauliflower not heading well; turnips with thick necks and small bulbs, and sometimes, as happened to the writer with the disease called fingers and toes; carrots, as I have seen this year, many of them running up to seed, &c. This comes from planting out inferior roots for seed, instead of selecting the best bulbs and then transplanting them, I am told that now most of the seed we get is raised by sowing in the fall and letting them run up to seed the next summer and then gathering it; a deterioration in the root crop must necessarily take place if such a system is followed.

I noticed in the Toronto market reports that pears were from three to six dollars per barrel, the *Bergalou* bringing the latter figure, the *Vergeleau* pear no doubt is meant, and I merely notice it to induce both Reporters and fruit-dealers to "post" themselves in the true names of fruit, especially as the Horticultural and Provincial Shows give them such a good opportunity, where, as the bills say, "all fruits must be correctly named."

By the way, the people of our cities seldom get pears in their full perfection; the fruit is often gathered too soon by those who supply your markets, boxed up and left to ripen as best it may, some are wilted, others are rotten, and but little is fit to eat; those who wish to enjoy a real luxury in fruit should make arrangements with some respectable fruit-grower to furnish them with fruit, in good condition, and in such quantities as may be required. Such parties may be found in Niagara, St. Catharines, Hamilton, and other places along the lake, where it could be shipped any day by boat or cars."

The Canada Farmer.

TORONTO, UPPER CANADA, OCT. 16, 1865.

The New York State Fair.

We had the pleasure of attending the twenty-fifth annual exhibition of the New York State Agricultural Society, held at Utica, Sep. 12 to 15. As the place at which the fair was held this year is not so well known to our readers as that where it was held last year, (Rochester) it may not be amiss, perhaps, to say a word or two about it. Utica is the chief city of Oneida county, and contains a population of about 25,000. It is situated on the Mohawk river, and at the junction of the New York Central and Utica and Black River railways, and of the Erie and Chenango canals. The city lies on the south side of the Mohawk, rising gradually from the river to a height of 150 feet or more above it. It is a compact, well-built city, containing many elegant stores and fine private residences. The back streets are beautified and shaded with trees, and the spacious avenues are very pleasant. Utica is distinguished for its public schools. It is the location of the State Lunatic Asylum, one of the largest insane asylums in the United States. There is a large Welsh element in the population both in and around the city. Utica made but slow progress until the completion of the Erie canal, since which time it has grown very fast. It is now one of the most flourishing places in the state.

The fair grounds are about two miles from the business part of the city, but a street railroad extends to the spot, and it was therefore convenient of access. If we except the somewhat fickle and uncertain character of the weather, everything passed off most satisfactorily. Tuesday was a bright, clear day; Wednesday was threatening and showery; Thursday was unsettled and fiercely hot until in the afternoon, a tremendous thunder-storm cleared the grounds and scat-

tered hither and thither a drenched and bo-dragged crowd. Friday was fine, but the last day of the fair is usually a *dies non*, and the number of visitors was necessarily small. Despite the state of the weather, the attendance was good, and the receipts, from all sources, amounted to about \$12,000,—some \$100 more than when the fair was held in the same city two years ago. The exhibition was regarded, by those competent to judge, as a success, and we could not perceive that in any essential feature it fell behind its Rochester predecessor. As we had occasion to remark last year, the show of cattle was limited, though it embraced some excellent specimens. Some good short-horns were exhibited by Hon. Ezra Cornell, of Ithaca; Messrs. Wolcott and Campbell, of New York Mills; Samuel Thorne, of Thorndale; and A. B. Ritter, of Fayette. Mr. Cornell's bull, 3rd Lord of Oxford, was much admired. This fine animal has been sold to an English purchaser, Mr. Harvey. Some heifers of Mr. Cornell's were also "hoice animals. Messrs. Wolcott and Campbell had a very promising two years old bull, sired by Oxford Lad, which attracted notice. The Devons were not in as full force as last year, and then we regarded them as a meagre part of the show. E. Corning, Jr., of Albany, was again sole exhibitor of Herefords. Messrs. Wolcott and Campbell exhibited nine Ayrshires, some of which were particularly good. We were especially pleased with "Baldy," a recently imported three year old bull. His like we do not remember to have seen anywhere. The Alderneys were not largely nor well represented, with one or two exceptions. In grade cattle, there was a large and excellent show. The display of working oxen was unusually good. Some fat cattle also were shown.

The horses formed a prominent feature in the Exhibition, but we are glad to say there was no racing, at least under the auspices of the Society. A magnificent turn out of draught horses, owned by the American Express Company, and driven twenty-in-hand, made a very fine appearance. Both in number and quality, the horses made a good display. In sheep, the Merinos as usual far outnumbered all other sorts. There were several exhibitors of this popular breed from Vermont, besides the New Yorkers, who turned out pretty strongly. Though in a decided minority, there were some good Cotswolds, Leicesters, Southdowns, and Shrops. The chief Cotswold exhibitor was Mr. E. Gasley of Dutchess County, whose one Cotswold fleece compared so favourably with the Merinoes, at the recent Canandaigua trial. He is quite sanguine that he shall yet convince his friends and neighbours of the superiority of the Longwools. Success to him, say we. The Merino mania borders on the ridiculous. In the swine department, the show was a good one, particularly the larger breeds, of which there were some fine specimens. A choice and varied collection of poultry was on exhibition, Messrs. Heffron & Barnes of Utica, being the chief prize takers.

To us, by far the most interesting feature of the show, was the implement department. It is impossible to give any idea of the variety or excellence of this branch of the exhibition. Ploughs, cultivators, drills, horse rakes, seed-sowers, broadcast and m rows; horse-hoes and all manner of contrivances for putting in and working crops; hay-tedders, potato diggers, gang-ploughs, reapers and mowers in almost endless variety; threshing-machines, fanning-mills, hay presses, and we know not what beside, crowded the spacious portion of the grounds devoted to implements. One could not fail to be struck with their substantial make and excellent workmanship. Many of them deserve particular mention and minute description, did our space permit. Several kinds of patent fence and farm gates were shown. Among the latter, was one which struck us as the best farm gate we had ever met with. It is known as "Harrah's National Gate," and works upon a novel principle, being hoisted into the air, and standing perpendicular when open. It is easily made, is not liable to get out of order, cannot be left half open or in the way, and as a snow-gate, is just the thing. We purpose ere long, to give our readers a fuller description of it, with illustrative cuts.

Next to the implements, and indeed hardly second to them, was the show of dairy products and requisites. An entire hall was devoted to the cheeses, of which there were no less than 516, beside the Canadian mammoth, which consisted of 40 to 50 "single" cheeses "rolled into one." The specimens of cheese were chiefly from factories, very few being the products of family dairies. Beside the common article,

Cheddar and other styles of cheeses were on hand. In point of size, the New York dairymen were eclipsed by a Canadian exhibitor, Mr. A. Smith of Norwich, whose now famous "big cheese" made its debut at Utica. When put into the hoop, it weighed 4,210 lbs., and took the milk of 500 cows four days for its production. Its appearance on the fair ground, drawn by 10 yoke of oxen, with the British and American flags flying on either side of it, created quite a sensation. It is the largest cheese ever made, but will probably be out-done next year, as the factorymen of Herkimer and Oneida counties will never quietly suffer themselves to be beaten, especially on their own ground.

As an episode once in a while, the manufacture of a big cheese may be very well, but a rage for dairy men to do it is not desirable. They are awkward things for making, shipping, and most of all for retailing. Some samples exhibited by Mr. L. R. Lyon, deserve special mention, from the fact that they were made without bandages. Instead of these, they are encased tightly in elm hoops like those used for sending cheese to market. These hoops are made in such a manner that only top and bottom covers are needed when the cheeses are ready for shipment. In the case of cheese meant for the English market, there is a double saving effected by this plan: first the cost of the bandage, and then the deduction made on account of the bandage in England. Cheese is always stripped of its cloth encasement, on its arrival in the British market, and one pound deducted from each cheese to allow for it. Mr. Lyon's cheeses were as perfect in shape, and in apparently as good condition as any of the others. The show of dairy apparatus was very large, and comprised everything needed in this important branch of farm industry. W. Rolph & Co. and O'Neill and Co., of Utica, had each a large building full of vats of various sizes, hoops, milk-cans, weigh-cans, cheese-screws, syphons for carrying off whey, agitators, curd knives, &c. Messrs H. & E. P. Cooper of Watertown, had also a fine display of dairy vats, and Messrs Jones & Co., exhibited very nice samples of bandage cloth. The extensive assortment of articles of the above kind, gave one an impressive idea of the magnitude of the dairy interest in this region.

The Floral tent was nicely arranged, and well filled with flowers and fruit. The grapes especially made a fine show. On Thursday afternoon, an address mainly on Agricultural Education, was delivered on the ground by Hon. G. W. Schofield, of Pennsylvania. It was able and interesting. One feature of it was a formidable array of objections against farmers and other practical men spending time in the acquisition of the dead languages. Three discussions were had on as many evenings of the Snow week, the first and second were capital, the third on Tobacco culture, was not regarded with a great amount of interest, and was chiefly noted for a sharp and sensible address by one of the farmers present, on the morality of tobacco raising. A supper was given on Thursday evening by the city authorities to the officers of the Society and other invited guests, at which various appropriate sentiments were proposed, and pithy speeches made. We are sorry to say that our Provincial Society had no representative at the New-York State Fair of the present year, and so far as we know, with the exception of the Norwich Cheese men, we had the representation of Canada to ourselves. Utica is not quite so close to our border as Rochester, still we could have wished to see at least a deputation from our Provincial Society there, and we trust another year will witness a better attendance from this side of the lines. Our New York neighbours welcome us very cordially, treat us very hospitably, and reciprocate our visits, when we make them, very promptly. The benefits given and received by this kind of intercourse, are so numerous and valuable, that it is every way desirable for it to be kept up without a break, and fostered into yet closer intimacy.

Lower Canada Provincial Exhibition.

The great biennial show of Lower Canada was held this year, under most favourable auspices, on the 26th of September and following days, at Montreal. The weather was all that could be desired, and various circumstances contributed to swell the number of visitors, and thus secure the success of the affair in a financial point of view. The Provincial Exhibition, was divided into two sections, the Agricultural and the Industrial—and a separate locality was assigned to the display of each. A somewhat square field containing about ten acres, and forming part of what is known as the Priest's Farm, was used for the live stock and implements. Covered sheds for cattle and

horses extended entirely round the four walls of the enclosure. The positions occupied by horses and bulls were partitioned off into open stalls, and the public were thus afforded most satisfactory facilities for the inspection and comparison of the animals. The shed space assigned to cattle other than bulls was not partitioned off; but was merely covered so as to comfortably shelter the animals occupying it. In addition to the sheds along the walls there were four others in the south-west corner of the grounds, which merely consisted of roofs with a partition run along the middle of each, so as to accommodate two ranges of cattle. Above these were pens for the pigs and sheep, merely protected by flat roofs.—far from being constructed weather-proof. Eastward of these pens were three more sheds; one for agricultural implements, another for poultry, and a third for refreshments. In the centre of the grounds a large ring was set apart for testing the action and going qualities of the horses; while on those portions not occupied by sheds, the larger implements, such as threshing machines were exhibited. About half a mile from this field and connected with it by the street railway is the Crystal Palace, where the exhibition of the Industrial department took place. This building was first opened for a display of arts, manufactures, &c., on the occasion of the visit of the Prince of Wales. It is about 120 feet long by 80 feet wide. It possesses two tiers of galleries, and has altogether an available surface for the purposes of an exhibition of about 17,000 superficial feet. On the ground floor, stoves, safes, carriages and the heavier goods were shown. An open nook on the left was appropriated to dairy products, and an adjoining space to field roots. In the first gallery were cloths, cabinet and marble work, the fine arts, printing, &c., while the upper gallery was occupied with ladies' work and a variety of other light goods. The total number of entries in both departments of the Exhibition, were as follows:—Horses, 236; cattle, 510; sheep, 490; swine, 150; poultry, 278; agricultural productions, 422; field crops, 318; dairy products, 175; agricultural implements, 150; total in agricultural department, 2,729; industrial department, 376; grand total, 3,105. Compared with the number of entries at the last Exhibition, two years ago, the agricultural department alone showed an increase of about 1,200. This satisfactory development of the proportions of a really valuable institution cannot fail to be highly gratifying and encouraging, not only to those who are directly concerned in the management of the itself, but to every Canadian who has the welfare of his country at heart.

The classification and actual arrangement of the cattle at the Lower Canada shows differ considerably from the practice adopted at our Provincial Fair. Instead of having the Durham by themselves, the Devons by themselves, and so on as with us, they place together animals of all breeds which hold the same rank as regards age, sex, &c. For example beginning with bulls, we had first the Durham four year old bulls; then next to them the Hereford four year old bulls; next to them the Devon four year old bulls; and so on. Then we had the cows of the various breeds brought together in the same way, and so through the whole list. This plan, though it may have its disadvantages and inconveniences, enables the uninitiated to master easily the characteristics of the various breeds. In this department, both as regards the number and class of animal exhibited, there was a marked improvement on previous Lower Canada shows. Much of this was due to our Upper Canada exhibitors, who carried off a large proportion of the best prizes. For the best aged Durham bull, G. Mitter, Markham, got the first prize, and L. C. Pierce, Stanstead, the second. For the best Durham cow the first prize was awarded to J. Ashworth, Quebec; and the second to F. Fye, Lacolle. For the best Devon bull, C. Courtice, Darlington, C. W., got the first prize, and D. Brines, Huntingdon county, C. E. the second. In Herefords there was comparatively little competition, as R. Kimpton of South Proxton, was, we believe, about the only exhibitor in this breed. The Ayrshires mustered in considerable force and the competition was pretty close. The show of sheep as compared with the Upper Canada Exhibition, was very respectable, but the fact that Mr. Miller, of Markham, and other Upper Canada sheep raisers were among the exhibitors, contributed very materially to this result.

Among the horses some very superior animals were shown, the pure Canadian breed being the most numerously represented. Some fine animals were also exhibited among the thorough-breeds. For the best blood stallion, H. Brode, Montreal, obtained the first prize; the city of Quebec Agricultural Society the second, for a recently imported stallion; and S. Beattie, Markham, the third for his horse "Star Davis"—who obtained the second prize in the same

class at our late Provincial Fair. The space allotted to pigs was pretty well occupied, and the animals shown were generally creditable specimens of the porcine race. The poultry department was very ungenerally represented, which was somewhat surprising at an Exhibition held in a large city like Montreal, where there must be a great many poultry fanciers. The show of agricultural implements was very poor, as compared with what is witnessed at our Provincial Exhibitions.

The Industrial department of the show, held in the Crystal Palace, made a very creditable appearance. The display of roots was not large, but the specimens exhibited were particularly fine. The potatoes, turnips and mangolds, could not easily be surpassed. Some fine samples of wheat and coarse grain were shown, but the entries were comparatively few. The sections of arts and manufactures were not numerously represented, and the display, with the exception probably of furniture and carriages, contrasted unfavourably with that recently witnessed at London at our own Exhibition. Simultaneously with the Provincial Fair, but not connected with it, was a Horticultural Exhibition held in the Victoria Skating Rink building, in Drummond Street, which was under the auspices of the Montreal Agricultural and Horticultural Societies. Our Lower Canadian neighbours were thus well supplied with Exhibitions, having no less than three in active operation during the same week.

Sale of Stock at Moreton Lodge Farm, Guelph.

The sixth annual sale of thorough-bred stock, belonging to F. W. Stone, Esq., came off on Wednesday, the 4th inst., as previously advertised. A large number of persons assembled at the appointed hour, and among them were a number of noted stock-breeders, from distant parts of Canada, and also from the United States. The weather was remarkably cold for the season, and a most piercing wind rendered it very uncomfortable work to stand about, while it induced a shivering and drawn up look about some of the animals, which by no means heightened their beauty. We have rarely experienced such real discomfort as we endured while taking observations, and making notes at Mr. Stone's sixth annual sale.

Proceedings commenced pretty punctually; the pigs and poultry being first offered. The pig stock consisted of about twenty Berkshire spring pigs, and some half dozen of a white sort denominated Small Yorkshires, by Mr. Stone, but having very decided characteristics of the Suffolk breed. Considering their quality, which was not extra, the pigs went very well, realizing from \$5, to \$20 each, according to age and excellence. Aylesbury ducks and Dorking fowls were offered in coops containing trios, and brought from \$3 to \$6 per coop. The stock of poultry comprised some very excellent, well-bred birds. Luncheon was served after the disposal of the pigs and poultry, and, with appetites whetted by the cold, a hungry crowd executed summary justice upon the splendid hams and mutton provided for the occasion. Ale and "Irish Madeira" were also pretty liberally patronized, while the teetotalers present could not help reflecting how agreeable a cup of hot coffee would be, were it to be had.

At one o'clock the sale was resumed, and the Shorthorns were brought under the hammer. They were followed by the Herefords, and last of all came the sheep. We subjoin a list of the animals sold, with their purchasers and prices.

SHORT HORNS.

Cows and Heifers.—Sanspariel, 5th, red, calved Feb. 13th, 1860, got by 12th Duke of Oxford; dam, Sanspariel, (imported), Mr. John Osborne, Nassagawega, \$95. Sanspariel 10th, rich roan, calved Dec. 12th, 1861, got by Windsor; dam, Sanspariel 5th—took prize at the Provincial Exhibition at Kingston—J. Reading, Guelph Township, \$100. Isabella 11th, white, calved Jan. 7th, 1864, got by Royal Turk; dam, Isabella 5th, Mr. Gibb, Quebec, \$115. Sanspariel 13th, white, calved Aug. 30th, 1861, got by 12th Duke of Northumberland; dam Sanspariel 3rd, Mr. W. Scott, New Hamburg, \$15.
Bulls.—Northern Hero, roan, calved Nov. 26th, 1861, got by Prince of Wales; dam, Cambridge 2nd, Col. W. Teusdale, Detroit, \$85. Prince Regent, red and white, calved Jan. 10th, 1865, got by 3rd Grand

Duke; dam, Cherry Pie, (imported), Mr. W. Elgie, Nichol, \$70. Royal Arch, white, calved March 12th, 1865, got by Arch Duke; dam, Maid of Honor, Mr. St. Marles, Laprairie, \$70. Western Prince, roan, calved March 12th, 1865, got by Prince of Wales; dam, Sanpariel 10th, Mr. Gibb, Quebec, \$100. Lord Palmerston, red, calved April 22nd, 1865, got by the Moreton Duke; dam, Sanpariel 6th, Mr. John Jackson, Peel, \$65. Christmas day, red and white, calved Dec. 25th, 1864, got by the Moreton Duke; dam, Miss Margaret, Mr. Henderson, Wisconsin, \$150.

HEREFORDS.

Heifers.—Gentle 5th, red with white face, calved July 5th, 1864, got by Sailor, (imported), J. McLeary, for Mr. M. H. Cochrane, Compton, C. E., \$75. Verbena 2nd, red with white face, calved July 21st, 1864, got by Guelph; dam, Verbena, (imported), J. McLeary, for M. H. Cochrane, Compton, C. E., \$95. Baroness 4th, red with white face, calved June 29th, 1865, got by Sailor, (imported), dam, Baroness 2nd, Mr. Gibb, Quebec, \$55.

Bulls.—Robin Hood, (twin), red with white face, calved Aug. 22nd, 1864, got by Sailor, (imported), dam, Nell, (imported), Mr. Graham, Vaughan, \$50. Little John, (twin, age and pedigree the same as Robin Hood), Col. Dennison, Toronto, \$50. Northern Duke, red with white face, calved Nov. 2nd, 1864, got by Commodore; dam, Necklace, J. McLeary, for M. H. Cochrane, Compton, C. E., \$65. The General, red with white face, calved Dec. 1st, 1864, got by Guelph; dam, Gentle, (imported), Capt. Terret, Bradford, \$65. Sir Thomas, red with white face, calved Dec. 21st, 1864, got by Sailor, (imported), dam, Vanquish, Mr. John Bolton, Guelph, \$60. Lord Bateman, red with white face, calved Feb. 7th, 1865, got by Guelph; dam, Vesta 2nd, (imported), Mr. H. Oakes, Iowa, \$50.

SHEEP.

Cotswolds.—Three shear ram, Capt. Terret, Bradford, \$30. Two shear ram, Mr. Bakes, Barrie, \$32. Shearling ram, Mr. Graham, Vaughan, \$26. Do. do., Daniel McNiven, Flamboro' East, \$30. Do. do., Mr. Henderson, Wisconsin, \$36. Do. do., Mr. David Eby, Waterloo Township, \$35. Do. do., Mr. Henderson, Wisconsin, \$54. Do. do., Mr. Pussie, Woodhouse, \$65. Do. do., Capt. Terret, Bradford, \$46. Do. do., Mr. McKay, Toronto, \$56. Do. do., Mr. Oakes, Iowa, \$50. Do. do., Capt. Terret, Bradford, \$53. Do. do., Mr. John Stewart, N. E. Hope, \$56. Do. do., Mr. Kirby, Guelph Township, \$60. Do. do., Mr. Carpenter, Simcoe, \$79. Do. do., T. Smith, Toronto Township, \$55.

Leicesters.—Four shear ram, (imported), Mr. Robt. Strang, Doon, \$32. Five shear do., (imported), Mr. John Card, Guelph Tp., \$22. Three shear do., Alex. Smith, Fullinch, \$32. Do. do., Mr. McLaughlin, Howick, \$34. Shearling ram, Mr. W. Reynolds, Elora, \$20. Do. do., J. Kaye, Guelph Tp., \$18. Do. do., Mr. Weatherstone, Hamilton, \$26. Do. do., Mr. Weatherstone, \$35. Improved Leicester ram lamb, Mr. Weatherstone, \$20.

Southdowns.—Three shear ram, Mr. G. H. Highmore, Guelph, \$20. Do. do., Mr. Bakes, Barrie, \$22. Two shear do., Col. Teusdale, Detroit, \$20. Shearling do., Mr. Gibbs, Quebec, \$15. Do. do., Capt. Terret, Bradford, \$14. Do. do., Mr. C. Mickle, Guelph Township, \$13. Do. do., Col. Dennison, Toronto, \$13. Ram lamb, Mr. Gibb, Quebec, \$8. Do. do., Mr. John Black, Puslinch, \$8. Do. do., Mr. Geo. Renton, Ancaster, \$11. Do. do., Mr. Graham, Vaughan, \$11. Two shear ewes, 1st pair \$27. 2nd do., \$29. 3rd do., \$30. Col. Teusdale, Detroit. Three shear do., Mr. Graham, Vaughan, \$25. Four shear do., Col. Dennison, Toronto, \$20.

The prices obtained for the cattle were about the same as last year, but the sheep ranged at somewhat higher figures. Considering the quality of most of the animals, we consider the prices, with a few exceptions, to have been low, and quite expected keener competition over some of the specimens. The Herefords, especially went cheap. There are no such Herefords on the continent of America as Mr. Stone's, and some animals of remarkable excellence were knocked down at ridiculously small bids; \$65 was the most obtained for a Hereford bull. This was for a young animal of great beauty and promise. Several creatures were led out of the ring for want of an offer sufficiently encouraging to start them. One or two of these were inferior animals, which it would have been better not to have attempted to sell at all. It must be confessed, however, that there is still a great want of appreciation of fine animals among our farmers, and the desire on the part of many of them to get choice animals at low prices, is by no means creditable to them, or encouraging to those who at great

risk and outlay, import and breed valuable stock. The Southdown sheep also went very low, and one or two, after being put up at an upset price, were withdrawn for want of a bid. The sale was conducted by Mr. W. S. G. Knowles, who managed his part of the proceedings very well. A little more spirit and expedition would, however, have been an improvement. If the auctioneer was rather too slow, the proprietor was rather too quick, and betrayed considerable vexation when animals offered were not appreciated as they deserved. We understand that Mr. Stone usually sells a number of animals at private sale after the auction is over. To what extent he may have done so in the present instance, we have not learned.

Toronto Union Fall Exhibition.

THE City of Toronto Electoral Division Society's Fall Show was held in the Crystal Palace and grounds adjoining, on Thursday and Friday, the 28th and 29th days of last month. The weather proved propitious; but there was a deplorable lack of competitors and spectators. The falling off in the number of the former may be partly accounted for by the fact that the Show followed close upon the heels of the Provincial Fair; and might be also partially attributed to the very slender prizes which it was in the power of the Society to offer. The small number of visitors was no doubt owing to the somewhat inconvenient distance at which the grounds are situated from the main part of the city. At the same time, parties who visited the Show during the first day were not likely to be tempted there on the second. For the small number of live stock, and the meagre quantity of agricultural, horticultural, and other products were so absurdly lost and swallowed up in merely odd corners of the great space at command, that the effect produced on the explorer was not particularly cheering. A few fine specimens of cattle were shown, chiefly by Mr. John Snell, of Edmonton; and as most of them had been prize takers at the Provincial Fair during the previous week, another carnival of small prizes fell to this gentleman's share. His animals, however, having been noticed in our account of the Provincial Show, in our last issue, it would be superfluous to enumerate or describe them now. Several other exhibitors showed fair specimens of cattle and sheep, none of which, however, seems to call for particular mention. A small number of horses were on the ground, some of which were possessed of first rate qualifications, in respect to form and action. Pigs and poultry were represented to a limited extent, and we observed some fine specimens in each of those classes. The display of horticultural productions, and of arts and manufactures, was held within the Crystal Palace. The show of garden and green-house products, though limited in extent, was unexceptionally fine. There can be no question but that the fruit and flowers were entirely superior to those shown at the late Provincial Exhibition. In the fruit classes we particularly remarked the splendid collection of apples, pears, plums, several varieties of grapes, Siberian crabs, and a general assortment of fruits exhibited by Mr. Geo. Leslie, of the Toronto Nurseries. Other deserving collections in the same class were contributed by Messrs. J. Gray and S. Ashby, of this city. Some magnificent grapes were shown by Mr. George Vair, gardener to D. L. McPherson, Esq.; while the collection of stove and greenhouse plants and floral design, shown by the same exhibitor formed some of the most attractive features of the whole display. Judge Harrison also exhibited a large and beautiful collection of flowers and plants; and other exhibitors, whom we would gladly name did space permit, contrived some handsome specimens to this really delightful part of the Exhibition. The display of works of art, on the south-east wall of the gallery, was not of sufficient extent and importance to call for any special comment. Just without the east door of the building, we observed Messrs. J. H. Thomas & Bros., of Brooklin, with their collection of hives and bees. As at the late Provincial Fair, they formed one of the great centres of attraction, towards which visitors gravitated to look and to listen. We observed that these intelligent bee-masters received four first prizes, and a diploma, at the above Exhibition.

South Wellington Agricultural Association.

THE South Riding of Wellington and Guelph Township having amalgamated this year for exhibition purposes, their joint Show was held on Tuesday, the 3rd inst., at Guelph. Despite the rather unfavourable state of the weather—cold with an occasional drizzle of rain,—the attendance was large, and the display of animals and products good. The total number of entries in all the classes was 960. In some classes the Exhibition was much in advance of any previous years, in others it was hardly up to the usual mark. The show of horses was not beyond the average, comprising 75 entries. The collection of cattle was, as usual, extensive and of superior quality. It comprised 40 Durhams, 12 Galloways, and 48 grades. We have rarely seen so fine a lot of grade cattle as we did at this local Show. It far outstripped some of the Provincial and State Fairs we have attended. This circumstance proves how great a benefit is conferred on a neighbourhood by the introduction of pure-bred stock into it. The ordinary herds are gradually improved thereby, and brought up to a point of excellence but little short in practical value of the herds that can boast pedigrees. The sheep show was likewise excellent, embracing 53 Leicesters, 30 Cotswolds, and 3 Southdowns. Mr. Stone led on the prize list, but Messrs. Whitelaw, Parkinson, Tolton, and Kirby, also distinguished themselves in this department. The display of pigs was limited, but included some choice Berkshires and Essex,—the latter the property of Mr. Thomas McCrac, and prize takers at the recent Provincial Exhibition. The show of Poultry was not so good as we have seen in Guelph on former occasions. A splendid lot of grain was exhibited, though the wheat samples were hardly so good as usual. The peas and oats were very fine. The display of roots, vegetables, and fruit was highly creditable, though the turnips were much smaller than usual, owing to the drought and insect depredators. The dairy produce was unusually good, especially the butter. Eight samples of bread, and nine of maple sugar, were shown. There were 98 entries of ladies' work, most of it of the useful, rather than the fancy kind. In domestic manufactures, there were 28 entries. The implement department was better filled than we have ever seen it in Guelph on any previous occasion. It comprised 42 entries. Mr. Samuel Kerr, of Eramosa, exhibited some scutched flax of excellent fibre and great length. He sowed three acres by way of experiment last spring, and has gathered two tons to the acre, a result which ought to encourage him to try again. The dinner in the evening was well attended, and several addresses were delivered. An opinion adverse to the culture of flax as exhaustive to the land and no more profitable than wheat, was expressed by Mr. Whitelaw, President of the South Riding Society. This opinion was combated by Mr. W. Benham, jr., who contended that flax was by no means an exhaustive crop, and that if no more profitable than wheat, it was desirable as a change, and as less uncertain than that staple had proved of late. The subject of an Agricultural Hall was mooted. This is greatly needed in the County of Wellington. While maintaining superiority for cattle, grain, and roots, this fine county is allowing itself to be outstripped by adjoining counties (Halton, for example,) in the arrangements for its Exhibitions. A little energy and liberality would enable the Society to offer larger premiums, and to increase the classes. Nothing, or next to nothing, is now obtained for admission fees, while with a suitable Hall and grounds for exhibition, a handsome addition to the funds might easily be obtained.

WEST RIDING AND TOWNSHIP OF YORK UNION EXHIBITION.—We had the pleasure of attending this Exhibition, but it occurred so close upon the time of our going to press, that we are obliged to defer an account of it until our next issue.

Local Exhibitions.

NASSAGAWEYA.—The annual fall show for this township was held on the 3rd inst., at the farm of Mr. Easterbrook. In stock, there was but a meagre exhibition, with the exception of the pigs, which were remarkably good. Some well-made implements were on the ground. Mr. John Ramsay drew a large crowd around him by exhibiting his bees, and proving the ease and safety with which they can be managed. The grain, root, and apple samples were excellent. In butter, cheese, honey, and domestic work, the show was creditable. The "Dunkin Bill" having just been quashed in this county, after a brief sway, liquor was very freely used at this township exhibition, so much so, that it was disgraced by a descent to fisticuffs, a circumstance, which it is to be hoped, may never be repeated on a like occasion.

PILKINGTON AND NICHOL UNION SHOW.—The exhibition of these societies was conjointly held at Fergus, on the 4th inst. Though the day was cold and uncomfortable, there was a large turn out, and the little town was in a great bustle all day. The entries were more numerous than at any previous exhibition. As might be expected, the cattle formed the leading feature of the show. Messrs. R. Cromar, W. B. Telfer, A. Watt, and J. McQueen, were the chief exhibitors in this department. The specimens of grain and roots were good. Some fine samples of timothy and flax seed were shown. 27 lots of butter, and 7 samples of cheese, were exhibited. The display of ladies' work was meagre.

PESLINCHE.—The fall show for this township was held at Aberfoyle, on the 5th inst. It was highly creditable, and well maintained the good name of the old township. There was keen competition in horses, there being no fewer than 90 entries. The sheep show was good. There was a large display of grain, roots, and vegetables. Four fine samples of Indian corn, and some very large turnips and mangolds were to be seen. The domestic department was well filled. A fine sample of white brick was exhibited by Mr. James Morris, of Morrison.

A New-Yorker's opinion of the Provincial Exhibition.

We clip the following from the *Rural New Yorker* and doubt not that its perusal will give our readers much satisfaction:—"Our correspondent P." attended the Provincial Fair at London, last week, and writes us:—"The weather was very fine, the attendance large, and the receipts over \$10,000 at the gates, which, with memberships and other receipts, must have made the aggregate over \$12,000. Going directly from our State Fair, I was enabled to make a pretty close comparison. In the aggregate it was quite equal to the Fair at Utica. In cattle it exceeded ours, both in quantity and quality. The Judges pronounced the ring of cows in the Short-Horn class unsurpassed by any in this country. You may judge of the value of the compliment when I tell you that PAGE of New York, McMILLAN and Judge CHAFFEE of Ohio, were on that committee. There were some splendid specimens in each of the other departments. In coarse woolled or mutton sheep they were a long way ahead of us; better sheep I never saw. In swine and poultry they excelled us. Their horse department did not come up to ours. The dairy was fair. Domestic Hall was well filled. The Canadian ladies exhibited some splendid specimens of their handiwork, which would challenge the best work of their New York cousins. In implements the show was not large, but in harrows and cultivators they beat us, and some of each kind might be profitably introduced here. The Ploughing Match was a sight to behold. Think of some 50 or 100 teams and ploughs competing, both boys and men. And such work! Few of us take the pains we ought in ploughing. It would do our boys good to attend a Canadian ploughing match. "The Fair in every respect was a grand success. The hospitality of the people knew no bounds. We could not have been better entertained if at the home of a son or brother. The hearty good will which was everywhere manifested, both by the officers of the Society and the people, could not be exceeded anywhere, and I shall always bear in grateful remembrance the Provincial Fair of 1865."

An Agricultural Pic-nic.

A SOCIAL party assembled on the 7th instant to celebrate the anniversary of the Brighton and Cramahle Farmers' Club, in the Eastern division of the county of Northumberland. The meeting was to have been held in a very pretty grove, situated on an eminence, amidst the picturesque scenery between the villages of Colborne and Brighton; the ladies had made every preparation for a sumptuous repast, and the enjoyment of social intercourse among all ages and classes, when further proceedings were abruptly terminated by a severe thunder storm, accompanied by heavy and continued rain. The good things constituting the creature comforts of a pic-nic, had to be hurriedly gathered up, and a large farm-house being fortunately near at hand, the owner of which kindly sent the party a hearty welcome, the proceedings of the day took place under Mr. Irish's hospitable roof, to whom—including his attentive lady—the Society, under the emergency, is deeply indebted.

Considering the state of the weather, the party was quite as numerous as could be expected, and ample justice had been done to the products of the field and the garden, the President, G. S. Burrell, Esq., introduced Professor Buckland, who had been specially invited to address the meeting. The speaker was listened to by young and old of both sexes, with marked attention and approval through a long address,—in which he brought under review the importance and leading principles of agriculture, showing that as a pursuit, when intelligently followed, it is eminently calculated to promote the wealth and happiness of nations, and alike conducive to health of body and purity of mind. The Professor referred at length to the advantages of Farmers' Clubs, and said that as he would shortly be more at leisure to visit different parts of the country, he would urge upon agricultural societies the desirableness of organizing such agencies, either apart or in connection with existing societies. After offering a number of practical suggestions, relative to the improvement of Canadian agriculture, and societies expressing great pleasure in attending what, perhaps might be considered the first purely agricultural picnic in Canada, trusting that so good an example would be speedily and widely followed, he concluded an interesting and useful address by stating that he should be happy to answer, as far as he was able any questions the company might put, in relation to the objects which had brought them together. Several interrogations were then made, having reference either to agricultural education, or to matters of practical farming, the consideration of which agreeable occupied another hour. After a vote of thanks to Professor Buckland, the ladies, &c., the President, (whose valuable exertions in the cause of agricultural improvement were evidently appreciated,) brought the proceedings to a close, by a few appropriate remarks; the company separated highly pleased notwithstanding the inauspicious commencement.

Agricultural Intelligence.

Annual Meeting of the Agricultural Association.

The Annual Meeting took place at London on Friday morning, September 22nd, at 10 o'clock, in the committee room on the show ground, the undermentioned Directors being present, viz:

MEMBERS OF THE BOARD OF AGRICULTURE.

Hon. D. Christie, President; W. Ferguson, M. P. P. Vice-President; Hon. Asa A. Burnham, Hon. G. Alexander, Dr. Richmond, R. L. Denison, F. W. Stone; J. C. Rykert, President of the Association, Professor Buckland.

MEMBERS OF THE BOARD OF ARTS AND MANUFACTURES.

Dr. Beatty, President; E. A. McNaughton, James Gladstone, John Shier, James Cummings, and W. Edwards.

DELEGATES FROM AGRICULTURAL SOCIETIES.

Addington.—John Sharpe, Richard Williams.
Brant (West.)—Constant Eddy, Jacob Bingham.
Brockville.—W. H. Langrick.
Bruce.—Wm. Withers, Wm. Millar.
Carleton.—D. Kennedy.
Durham (West.)—Matthew Jones.
Eglin (East.)—James Armstrong.
Eglin (West.)—George Henry, L. McIntyre.
Frontenac.—Reuben Spooner, Dr. Barker.
Glengary.—O. M. Allan, James Craig.
Hallon.—John McGregor.

Hamilton.—Wm. Hendrie, John Mitchell.
Hastings (North.)—James Archibald.
Hastings (South.)—Samuel D. Farley, Wm. Woods.
Harou.—Robert Gibbons, Patrick Carroll.
Kenil.—Robert Wilson, Stephen White.
Lambton.—Wm. Cole.
Lanark (South.)—W. O. Buell.
Leeds (South.)—Wm. Starke, David Bone.
Lincoln.—D. Nixon.
Madawaska (East.)—James Johnston, Geo. Walker.
Madawaska (West.)—R. Moyle, M. McArthur.
Niagara.—S. J. J. Brown, H. J. Brown.
Norfolk.—Wm. McMichael, R. Cryser.
Northumberland (West.)—Trauman McEvers.
Ontario (South.)—John Shier, Geo. Higginbottom.
Oxford (North.)—R. W. S. Well, Wm. Grey.
Oxford (South.)—James Scuff.
Peel.—R. A. Hartley, Emerson Taylor.
Perth.—Stewart Campbell.
Peterborough.—John Walton.
Prince Edward.—George A. Sargent, D. B. Solmes.
Stormont.—Walter Colquhoun, R. G. Macdonell.
Toronto.—James Fleming, Alex. Shaw.
Victoria.—Wm. Cottingham, John G. G. G.
Waterloo (North.)—W. H. Peterson, Geo. Randall.
Welland.—J. H. Price, A. K. Se. Oilfield.
Wellington (North.)—Wm. Robinson, Jas. Hamilton.
Wellington (South.)—Wm. Watlaw, Col. Saunders.
Wentworth (North.)—Thomas Stock.
Wentworth (South.)—Alex. Young, John Renton.
York (East.)—A. Barker, John Crawford.
York (West.)—Philip Armstrong.

DELEGATES FROM HORTICULTURAL SOCIETIES.

Toronto.—Mr. Strachan.

Guelph.—W. Benham, Geo. Murton.

Hamilton.—Geo. Laing, David Murray.

Mr. J. C. Rykert, President of the Association, in the chair. Messrs. H. C. Thomson, Secretary of the Board of Agriculture, and W. Edwards, Secretary of the Board of Arts, joint Secretaries.

The minutes of last Annual Meeting were read and confirmed.

It was then moved by Dr. Barker, seconded by Mr. A. K. Scholfield, That N. J. McGillivray, Esq., of Glengary, 1st Vice-President, be President of the Association for the ensuing year.—Carried.

Moved by Mr. John Shier, seconded by Mr. Arch. Barker, That John P. Waeger, Esq., of East York, and Vice-President, be 1st Vice-President for the ensuing year.—Carried.

Moved by Mr. A. Barker, seconded by Mr. John Shier, That Hon. John Carling, of London, be 2nd Vice-President.

Hon. Mr. Carling, being present, begged leave to decline the nomination, as his business engagements would render it impossible for him to discharge the duties of the office. The motion was accordingly withdrawn.

Moved by Mr. Geo. Murton, seconded by Mr. James Scuff, That Thomas Stock, Esq., of North Wentworth, be 2nd Vice-President.—Carried.

Moved by Mr. A. Barker, seconded by Mr. William Grey, That Mr. R. L. Denison, be re-elected Treasurer for the current year.—Carried.

Moved by Hon. Mr. Carling, seconded by Mr. Jas. Johnson, That the next Exhibition of this Association be held at the City of Toronto.

Mr. Denison begged leave to enquire what propositions the representatives of the City of Toronto were prepared to submit to the meeting in regard to the preparations for the exhibition.

Mr. Metcalf, Mayor of the City of Toronto, and other delegates from that corporation, being present, were invited to give information on this subject to the meeting. The Mayor then submitted a document guaranteeing "to provide all the necessary accommodation that may be required to enable the Provincial Agricultural Association to hold its exhibition."

The motion was then put from the chair and carried.

Moved by Mr. R. Gibbons, seconded by Mr. A. R. Scholfield, That the old system of selecting Judges by a Board of Agriculture be continued in future.

Moved in amendment by Mr. Guy, seconded by Mr. R. W. Sawtell, That the different County Agricultural Societies be requested to name three persons from each Society, and to send those persons' names and the classes in which they are competent to act as Judges, to the Secretary of the Board of Agriculture, to enable the Board to make such selection as they may think fit from the number.

The amendment was put from the chair and lost, and the original motion carried.

Moved by Mr. A. Barker, seconded by Mr. John Shier, That the delegates present at the Annual Meeting of the Association held this day in London, give it as their deliberate opinion and conviction, that in any amendment to the Agricultural Bill the delegates should have the right to give an open vote for the election of retiring members of the Board of Agriculture.

Moved in amendment by Mr. Thos. Stock, seconded by Mr. John Renton, That this meeting would recommend the passage of the Agricultural Bill introduced by Mr. Cowan in the Session of Parliament for 1864.

Amendment put and lost, and main motion carried. Moved by Mr. Barker, seconded by Mr. Wheeler That a copy of this resolution be sent to the Minister of Agriculture, and that he be requested to use the influence of the Government in carrying it out.—Carried.

Moved by Professor Buckland, seconded by Hon. Mr. Burnham, That the Board of Agriculture urge upon the Government the propriety of taking measures to prevent the importation into this Province of cattle from countries where the cattle plague is known to exist.—Carried.

Moved by Mr. Burnham, seconded by Mr. Stock. That the thanks of the Association be given to the Great Western and the Grand Trunk Railway Companies, for the liberal terms, and the large amount of accommodation afforded by them in the conveyance of passengers, stock, and articles to and from the exhibition.—Carried.

Moved by Mr. Gray, seconded by Mr. Ferguson. That the thanks of this Association are due, and are hereby tendered to the importers of thorough-bred stock.—Carried.

Moved by Mr. A. K. Schofield, seconded by Mr. Dennis Nixon, That the thanks of this Association be tendered to Mr. J. C. Rykert, for the very efficient manner in which he has discharged the duties of President of the Association during the past year.—Carried.

Moved by Mr. Barker, seconded by Mr. Shier. That the thanks of the Association be, and are hereby tendered to the Treasurer and Secretary for their valuable services during the past year.—Carried. The meeting then adjourned.

Report of the American Agricultural Department for September.

WHEAT, OATS AND HAY.

In order to have a record of the injury sustained by these crops from the weather in a season so extremely wet, the question was asked in the last circular as to the extent of this injury. It will be observed, then, that it is reported directly in tenths, and that the table shows the injury from the weather only. The eastern and the middle States, with the exception of New Jersey, escaped with but little injury, but the western suffered much. In Maryland and Delaware the wheat was injured by the rain, but the oats and hay not to any material extent.

CORN.

The returns show this crop to be in a most excellent condition. It is much beyond an average in appearance, and the injury is trifling. In the west the crop is weedy, but the rains continuing through August saved the crop from any great injury on that account. That the corn would have been heavier, if clean, no farmer will doubt; and, had the months of August and September been very dry, as was to be feared from the excess of rain in July, that it would have been seriously injured by the weeds, every one will concede who remembers the light and chaffy condition of the corn crop of 1862, caused by the weeds which sprung up during the wet weather in harvest time, after the crop had been laid by. The hot, moist weather that prevailed during the first half of September, has been most favourable to the maturity of the corn, and it is not probable that it can now sustain any injury, even in the localities where the overflow of waters and the excessive wet held back the planting until very late. We may, therefore, safely congratulate the farmer in having the best corn crop the country has produced, and in having the means of increasing his farm stock—an increase much needed now.

SORGHUM.

The condition of this crop is good, and the injury sustained by it is light.

POTATOES.

Although the returns are so far very favourable, yet the rot was prevailing in too many places when our correspondents made their returns, on the first day of September, not to cause fears that this crop may have suffered very much from the general prevalence since then of warm, wet weather. The tops, in the west, were generally overgrown, but the wet weather prevented them from dying so quickly as they would have done had the weather been dry.—The injuries, otherwise, are not so great, and these have been occasioned by the potato-bug and overgrown tops.

BUCKWHEAT.

This crop promises to be a good one.

HOPS.

The condition of this crop is favourable generally, but in New York it has been most seriously injured by the lice. As this State, in 1860, produced 9,671,931 pounds of the 10,991,996 raised in the entire country, it will readily be seen that the injury of 41 tenths, reported in the table, resulted in a great loss to the crops. Hence the advance in the price of hops which are selling as high as 60 cents per pound.

ROOT CROPS AND GARDENS.

They were never better.

GRAPES.

In the States where grapes are mostly grown, the injury from rot has been very extensive. As the grape belongs to the dry trade-wind regions, as California, it is illly fitted to endure such weather as we have had since the beginning of July. The Catawba has rotted very much, but the Concord has not.

OLD WHEAT.

The returns to the question of the amount of this on hand have not been as definite as we desired, the question not having been so clearly stated as to secure replies of a like character. The question has been renewed in the circular to be returned on the first day of October. But enough is seen to induce a belief that the amount is not as great as was supposed showing that the high price and scarcity of corn and potatoes had led to a greater consumption of wheat than usual.

FATTENING OF HOGS.

The table showing the number and condition of these, exhibits in every State a decrease in the number from last year. Their condition is good: better than that of last year. Letters accompanying the returns of the circulars from many of our correspondents indicate that the hogs are smaller than usual.

The cause of this decrease is obvious enough.—Scarcity and the high price of corn induced the farmers to sell it, rather than feed it to hogs.

The Portage (Wisconsin) Register says it is estimated that the hop crop in the vicinity of Kilbourn City this fall will be worth \$750,000.

WHEAT CROP IN WATERLOO.—The Wheat crop in Waterloo is turning out splendidly, far exceeding the expectations of the farmers.—*Guelph Mercury*.

THE TURNIP CROP.—The turnip crop throughout this section of the country will be a failure. The grub, which is swarming in myriads, has eaten every green leaf from many of the fields. The farmers will suffer great loss from the scourge.—*Guelph Herald*.

HOP ITEMS.—A New York paper says:—The picking is about over; the crop is very light; the quality, as a general thing, better than last year's. The price for the first-sorts rules high, with not much activity in the market. From 40 to 55 is paid in the country. At the West, several hundred bales were picked up by eastern buyers at about 40 cents; the price there has since advanced.

YIELD AND PRICE OF WHEAT.—We are pleased to learn that the wheat in the back townships is turning out capably in the threshing, and is in every way fully up to expectations. In fact, it is by far the best crop that has been raised for a number of years back, the farmers have already commenced to realize, and we note quite a number of sales the past few days in Galt of spring wheat, at prices ranging in the neighbourhood of \$1 07 per bushel. This is a good price, and, with the capital crop, should go far towards setting our country friends upon their feet.—*Galt Reporter*.

MONTHLY FAIR.—The Guelph regular monthly Cattle Fair was held on Wednesday. The attendance of farmers and drovers was large—not less than 2,000 persons being in town. Upwards of 350 head of cattle were on the ground, as also a large number of horses. Competition was keen, sales rapid and heavy, and prices liberal, and nearly all the cattle on the ground changed hands. First class stock sold from \$1 to \$4.50, second class, \$3.50 to \$4, third class, \$3.00 to \$3.50 per hundred, live weight, Mr. Britton, Toronto, paid \$50 per head for nineteen fat cattle. Mr. S. Mead bought 20 head of cattle from Mr. A. McLellan, of Puslinch, for \$700, also 6 head at \$0 per head. Mr. J. Cullen, Puslinch, sold a yoke of oxen for \$110, and Mr. M. Lynch sold a yoke for \$100. Mr. Wilkinson sold 2 yoke of steers, one for \$45, the other for \$71. Mr. J. Phelan sold two head of cattle for \$70; and Mr. Armstrong, Puslinch, a yoke of steers for \$72. The average prices were, for oxen, \$40 to \$40 per yoke; Milch Cows, \$25 to \$35. An average of \$36 per head was paid for all descriptions of cattle. Upwards of \$9,000 was paid out for cattle. Several horses and colts were sold at prices varying from \$40 to \$120.—*Guelph Mercury*.

British Cleanings.

GREAT PLOUGHING MATCH.—One of the largest ploughing matches in England, came off recently at Thame, in the presence of an immense number of spectators. Much interest was excited by the contest between Purser and Barker, the rival ploughmen of the Howards of Bedford, and the Ransomes of Ipswich, for the prize open to all England. The work done was of the highest order, and the Bedford man was declared the winner.

EXTRAORDINARY DESPATCH IN HARVESTING OPERATIONS.—The *Berwick Journal* relates the following:—“As proving the favourableness of the season, we may mention that a landed proprietor of this district, who had 270 acres of grain crops, commenced cutting on the 24th ult., and finished on the 7th inst. He commenced to stack his wheat on the 9th inst., had it thrashed on the 13th, and sent it to the miller on the 14th. On the 15th a portion of it was converted into bread, and was actually served to breakfast in the gentleman's own family that morning. Such an occurrence deserves to be recorded, and we may add that the wheat in question weighed 64½ lbs. per bushel.

THE POTATO DISEASE IN SCOTLAND.—The *Dundee Advertiser* says:—“We regret to hear from several quarters in this neighbourhood, and more particularly in the counties of Perth and Stirling, reports of the very rapid spread of the potato disease. In some fields in course of being taken up it has been observed that while the appearance of the disease was very slight one day, it was necessary on the day following to keep a man at each cart taking out the diseased tubers, while in another day or two those remaining in the ground were almost all affected. It is feared that if the disease progresses as it has been doing, the injury sustained by growers will be exceedingly serious, and, coming along with the plague amongst the cattle, the prospects of the agricultural classes are such as to excite considerable apprehension.”

NEW MILK COMPANY IN LONDON.—In consequence of the rapid extermination of dairy cows in the metropolis by the cattle plague, a new company is forming for the purpose of supplying milk to the 3,000,000 inhabitants of that overgrown city. The *Agricultural Gazette* has the following remarks on the project:—“However independent adults may be of the supply of this produce, physicians assert that infants require it, and that no good substitute can be discovered. If the overworked mothers fail to support their babies, and cows are not at hand to yield a healthy supply, the children must perish, or survive with ill-nourished systems to suffer disease in future. Any measure, therefore, calculated to favour the supply of milk must tend to reduce infant mortality. At present 5d. and 6d. per quart are prices at which London milk is supplied; and it is said that such a price will leave a handsome margin of profit, if several cows are kept under a good system. The proposed ‘Dairy Company’, of which Dr. Lankester, Professor Gamgee, and several practical farmers and dairymen are directors, is intended to meet this want.”

ANIMAL SAGACITY.—Dr. Bree, of Colchester, writes to the *Field*:—“Mr. Higgs, the present Mayor of Sudbury, related to me that he had a horse which used to pump his own water. ‘I once (he said) had a young horse, about six years old, which used to pump his own water by taking the handle of the pump in his mouth and working it like a human being. The other horses would take advantage of this, and when they were thirsty would bite and tease him to go and pump for them, in which they were generally successful. He would walk up gravely, and take hold of the handle, and work away. Directly, however, the water began to flow he would pop down his own head and drink. I have often seen him do this. Mentioning this to Cresswell, the owner and driver of the omnibus between Walton and Colchester, he told me the following instances of feline intelligence. Two cats, living in different parts of the town of Walton-on-the-Naze, adopt the following mode of opening the cottage-door of their habitations when shut out. No. 1 takes a jump and strikes the handle of the latch with her foot in the middle of her spring. She generally manages to open the door this way the first time, but, if unsuccessful, she repeats the springs till her object is effected. In the case of No. 2 there happens to be a post close to the handle of the latch, and pussy springs on the top of this, and then deliberately presses down the handle with her foot, and the door opening, she jumps down and walks in.”

DEEP FALL PLOWING.—We clip the following from Norton's Farmer's Calendar:—"In Holland the first operation on the stubbles is as deep a furrow given with the plough as can be done with horses. Ten to 12 inches of the alluvial soil are thus turned over; and if the weather permits, a cross-ploughing of less depth is given before winter. In the neighbourhood of Edinburgh nothing strikes the spectator more during a walk over the fallows in winter than the great depth of the ploughing which has been given to the land since harvest. And in instances nearer home, where the practice has been transplanted or adopted farther south, the same advantage seems to follow a deep autumnal ploughing. In the fen districts a large deep-working plough has been lately introduced by Messrs. Howard, which seems to be most influential on the fertility of the land. The bringing up a portion of the clay subsoil to be weathered during winter, when it becomes mixed with the vegetable mould of the surface, is found to be most beneficial."

AN ANTI-STORATIC WEATHER PROPHECY.—The *Scottish Farmer* says:—"A weather prophet has arisen in Ireland. The Earl of Portarlington, anxious to cheer the hearts of his farmers, which must have been much damped by the late heavy rains, has addressed to a contemporary the following letter. His lordship does not state the grounds upon which he bases the belief in which he wishes the farmers to participate:—
Emo Park, August 17.—Sir,—Lest our farmers should go disheartened by the continuance of this rainy weather in the midst of harvest, I am tempted, through the means of your widely-read columns, to seek to encourage them by begging them to look forward to the next week, when, from the 23rd to the 25th, we may expect a great and most favourable change in the weather, introducing to us a lovely, warm, and dry September, which will bring to a close one of the finest summers ever remembered in this country. I cannot but hope that the approaching dry period, though later than we have wished, may yet be in time to save the corn crops in good order throughout the country.—I am, &c., PORTARLINGTON."

VALUE OF WEEDING.—The following experiments show the value of weeding and are reported in the *Journal of the Bath and West of England Society*. 1 Seven acres of light gravelly soil were fallowed and sown broadcast: one acre was measured, and not a weed was pulled out of it; the other six were carefully weeded. The unweeded acre produced 18 bushels, the six weeded acres averaged 22½ bushels per acre, a clear gain of 25 per cent. 2. A six-acre field was sown with barley in fine tilth, and well manured. The weeding, owing to a great abundance of charlock, cost 12s. per acre. The produce of an unweeded acre was 13 bushels, of the weeded 28 bushels, thus showing a difference of 15 bushels per acre, besides the enormous advantage of having the land cleaned for the succeeding crop. 3. Of six acres sown with oats, one acre ploughed out well, and unmanured and unweeded, yielded only 17 bushels: the rest ploughed three times, manured and weeded, produced 37 bushels per acre.

STACK BURNING IN LINCOLNSHIRE.—From a report in the *Agricultural Gazette*, it would appear that the fearful scenes of last winter, which produced such consternation throughout North Lincolnshire and East Yorkshire, seem likely to be re-enacted. Our contemporary says:—"No sooner has the harvest been gathered than two fires—having, alas, too many marks of the unmistakable incendiary of last winter—are reported from North Lincolnshire. The first of these recently occurred at West Burton, a village about three miles from Gainsborough, and eight from Retford. The fire made its appearance soon after midnight upon the farm-yard of Mr. William Toder, Middle House. The household retired to rest at 11 o'clock, leaving all safe. Between 1 and 2, Mr. Foster, of High House, residing about a quarter of a mile west from Mr. Toder's, was awoke by a glare from the stackyard, which fronts his bedroom. At about 6 o'clock, in spite of the arrival of two fire engines, and the efforts of the farmer and his men, aided by a good supply of water, the flames had destroyed 25 stacks of wheat, barley and oats, besides four waggons which were left near the stacks, and of which nothing but the iron frames remained. Four large fat pigs, and a peacock which flew into the flames, also perished. The entire produce of the farm had been got in on Saturday, and of the whole a few loads of clover and hay were all that was saved. Happily, by strenuous efforts, the farm buildings were saved. Passengers to Hull by the last train from Grimsby report that some wheat stacks were burning. There is every reason to fear that it was another stack conflagration."



Forwarding Early Vegetables.

I wish to give you a little of my experience in using small pieces of turf sod for forwarding vegetables. I have used it very extensively this spring, and find it of great advantage. I take pieces about four or five inches square, in March, and put them in my earliest cucumber frame, and drop three or four seeds of cucumbers or melons in each piece; and then as I cut lettuce, during April, out of other frames, I plant them in it. Again, in March, I filled two sashes with early Potatoes, in the same way; in April I planted them out in the ground, and filled the sashes with Lima beans, and put them out in the second week in May. Two sashes will hold enough beans to plant 150 hills. It gives beans generally two weeks earlier, and you do not have to replant, as none of them rot with the wet, which is a great consideration. A great many gardeners around here have had to plant three times this spring. I forward Okra the same way. For potatoes and lima beans, I take strips 4 or 5 inches in width, and any length convenient, put them in the frame close together, grass downwards, cut a notch down the centre and put the beans 3 together, then a space of 2 or 3 inches, then 3 more, then cover all over with some loose rich soil. Potatoes I put about three inches apart; when I wish to plant I take them out in lengths and put them in a wheelbarrow; take them to the ground and cut them in pieces with a sharp spade.—G. T., in *Gardeners' Monthly*.

The Apple-Tree in the Lane.

It stood close by where on leather hinge
The gate swung back from the grassy lane,
When the cows came home, when the dusky crew
Its mantle threw over hill and plain.
Its branches, knotty and knarled by time,
Waved to and fro in the idle breeze,
When the spring days wore a blushing crown
Of blossoms bright for the apple-tree.

Its shadow fell o'er the crystal stream
That all the long bright summer days,
Like a silver thread mid the waving grass,
Reflected back the golden rays
Of the noonday sun that madly strove
To drink the foam of the brooklet dry,
But the light clouds showered tear-drops down
Till the glad brook laughed as it glided by.

Never were apples half so sweet,
Golden russet striped with red,
As those that fell on the yielding turf
When she shook the branches overhead
A trying place for youthful friends
Was the apple-tree in the days of yore,
And oft we've sat beneath its shade
And talked bright dreams of the future o'er.

And when the warm October sun
Shone on the maple's scarlet robe,
We gathered apples sound and fair,
And round as our own mystic globe
The stately hemlock crowns the hill,
The dark pines rise above the plain—
But the one we prize far more than they,
The apple-tree in the pasture lane.

Long years have passed, and cows no more
Come home at night through the grassy lane
Where the gate swung back on leathern hinge
I stand and gaze on the far-off plain.
No more we list to the music low
Of the crystal stream as it ripples on,
And the apple-tree in the pasture lane
Is but a dream of days bygone.

—Mark Lane Express.

RAG CATS AND CHERRIES.—A lady informs the *Marine Farmer*, that she saved her cherries from the birds, by making some cats out of old rags. "Do sure," she says, "to make the eyes out of large yellow beads or bright brass buttons, and the birds will not come near when one of these cats is perched in the tree."

The Bulb Farms of Haarlem.

In the first place the natural soil about Haarlem is composed chiefly of sand and decaying shell, which has been thrown up in former times by the ocean. It also contains a portion of vegetable matter, and is enriched annually by a liberal supply of cow-dung—the only kind of manure which is used. The land which is to be planted with the bulbs is trenched 2 or 3 feet deep in spring, and manured at the same time. But it is not yet in a fit condition for the reception of the Hyacinth. And mark, particularly, the next preparatory operation. A crop of vegetables, generally Potatoes, is taken off it, in order to draw out any rankness or impurities which might prove injurious to the Hyacinth. This being done during the spring and summer months, the land is ready for the reception of the bulbs in autumn, which is the proper season to plant them. Nor is this all; a careful system of rotation in cropping is also observed, so that these bulbs are rarely, if ever, grown on the same land, two years in succession.

When planted in October, the bulbs are covered over with 3 or 4 inches of soil, and are farther protected during the winter months with a layer of road, some 5 or six inches in thickness. And now the process of growth immediately begins, and in a way to which we beg to draw particular attention. It is the roots only that grow. They strike deep down into the earth in search of nourishment, while the stem remains, all but inactive, patiently waiting for the time when the roots shall be in a position to supply all its requirements. And thus it happens that when the spring comes round, and when the bulb begins to grow, as we say, a sufficient supply of nourishment is readily and abundantly supplied.

Another point which the Dutch cultivator considers of great importance is the careful preservation and full development of the leaves. Any disease in the leaves is rapidly communicated to the bulb, and hence every precaution is used to keep them in health and vigour. The flower stems themselves are usually removed before they are in full bloom, not with the view, as is sometimes supposed, of strengthening the bulbs, but in order to prevent the heavy flower-heads from falling upon and rotting the leaves. Huge heaps of Hyacinth blooms may be seen laid up in the corners of all the fields about Haarlem in the month of April, having been cut to prevent the chance of such a thing taking place. The Hyacinth would appear to be very liable to become diseased, and hence every precaution is taken by the Dutch cultivator to remove any predisposing cause, whether it be in the composition of the soil or in any injury that may happen to the leaves.—*Gardener's Chronicle*.

FLOWERS FOR PERFUMES.—According to the *New-York Tribune*, the quantity of flowers manufactured into perfumes in the town of Cannes alone, amounts to the following quantities, which we give in tons instead of pounds: Orange blossoms, 700 tons; roses, 265 tons; jasmine, 50 tons; violets, 37 tons; acacia, 22 tons; geranium, 15 tons; tuberose, 12 tons; jonquil, 2 tons;—amounting in all to over 1,100 tons of flowers, and being sufficient, if piled on wagons like loads of hay, to form a close procession more than three miles long, or sufficient to fill twenty good sized barns. According to the same article the rose is the most productive of petals, the plants set about three feet apart yielding two and a half tons to the acre,—which seems to be a rather large story, but may be possibly true if the fresh or undried petals are taken; the other plants do not yield nearly so much, but being higher priced are as profitable, the returns per acre varying from one to two hundred dollars.

TO PRESERVE ORCHARDS.—Nathan Shotwell, Elba, Genesee county, N. Y., thinks the cause of the present appearance of decay and death in so many orchards is owing entirely to neglect and bad management. He thinks a majority of orchards in this country have that neglected appearance; some are not pruned at all, others are carelessly haggled and large limbs left with protruding stumps that cannot heal over. Orchards are ploughed and the roots torn, and many farmers who have access to leaves, muck, saw-dust, etc., never mulch their trees, nor remove the rough bark which furnishes a harbour for insects. It should be scraped off with a hoc, and the tree washed with strong ley. An old orchard planted by my father, and still in vigorous growth and bearing, has not been ploughed for thirty years. It has generally been pastured with swine until apples begin to ripen. Manure frequently put to the roots of the trees destroying the toughness of the sod and making the soil loose and spongy, and the clons (the last year's growth) that were large enough for grafting, have nearly all been removed yearly for more than forty years.—*N. Y. Tribune*.

Miscellaneous.

A Cheap and Valuable Paint.

ONE of our neighbours has painted his out-houses, fences, &c., with a paint made as follows, and found it nearly as good as ordinary oil paint and vastly cheaper. In fact the cost is scarcely anything except the labour:

"Take half a bushel of nice unslacked lime: slack it with boiling water, cover it during the process to keep in the steam, and add to it a peck of clean salt, previously well dissolved in warm water; three pounds of ground rice, boiled to a thin paste, and stirred in boiling hot; half a pound of clean glue, which has been previously dissolved by first soaking it well, and then hanging it over a slow fire, in a small kettle within a large one filled with water. Add five gallons of hot water to the whole mixture; stir it well, and let it stand a few days covered from the dirt. It should be put on right hot; for this purpose, it can be kept in a kettle on a portable furnace. It is said that about one pint of this mixture will cover a square yard upon the outside of a house, if properly applied.

"Brushes more or less small may be used according to the neatness of the job required. It answers as well as oil paint for wood, brick or stone, and is cheaper. It retains its brilliancy for many years. There is nothing of the kind that will compare with it, either for inside or outside walls. Colouring matter may be put in, and made of any shade you like.

"Spanish-brown stirred in will make red or pink more or less deep, according to the quantity. A delicate tinge of this is very pretty for inside walls. Finely pulverized common clay, well mixed with Spanish-brown before it is stirred into the mixture, makes a lilac colour. Lamp-black in moderate quantities makes a slate colour, very suitable for the outside of buildings. Lamp-black and Spanish-brown mixed together produce a reddish stone colour. Yellow ochre stirred in makes a yellow wash; but chrome goes farther, and makes a colour generally esteemed prettier. In all these cases, the darkness of the shade will of course be determined by the quantity of colouring used. It is difficult to make a rule, because tastes are very different; it would be best to try experiments on a shingle, and let it dry. We have been told that green must not be mixed with lime. The lime destroys the colour, and the colour has an effect on the whitewash, which makes it crack and peel.

"When walls have been badly smoked, and when you wish to have them a clean white, it is well to squeeze indigo plentifully through a bag into the water you use, before it is stirred in the whole mixture.

"If a larger quantity than five gallons is wanted, the same proportions should be observed."

Our friend says that thirty cents worth of colouring matter will be enough for the half bushel of lime. Spanish-brown, yellow ochre, cost three cents a pound. Lamp-black and Prince's brown five cents a pound. The latter gives a handsome lilac shade.—*Genesee Farmer.*

Muscle and Machinery.

The great objection to farming hitherto has been hard work. Farm labour is done too much by hand. What manufacturer of the present day could succeed without machinery, and yet manufacturers were once without such aid. The human drudgery of the farm must be saved, if the farmer would rise, physically and intellectually, in his calling. Farmers cannot afford to be machines, when thinking powers rule the world. They must use machinery, and harness steam, wind, or horse power to their car. This last must ever be the most common motor of the farm, as it is within the reach of all. By horse-power the farmer can mow and reap, turn and pitch, thresh and grind, saw and bore, chop feed, and crush roots. It is not profitable to farm as those did who lived centuries ago. Labour is higher, taxes are steeper, and commercial values are rising. A better agriculture must arise than the past has known, or the farmer will go under. If our hills and valleys ever become properly cultivated, the farm or has a great work to do. Leaks must be stopped, time must be economized, intellectual and social elevation must be achieved, farmer's clubs must be sustained, machinery must supersede muscle. To make any business tolerable, it must be shown capable of yielding something besides health and bread, and that is about all farming has hitherto shown. Farming will become profitable, when the farmer better understands himself and saves all that wastes.—*Maryland Farmer and Mechanic.*

One Thing at a Time.

ONE thing at a time, my dear fellow—one thing at a time. If you attempt to lift both the twins and your wife over the stream at once, you will probably drop the doll of one of the little ones, and the bonnet of the other, and set the wife down ankle deep into the stream. Some men of extraordinary gifts can rock the cradle and read the paper at the same time: but few can stir the hominy and calculate an eclipse at once, without burning the one and postponing the other a year or two. You may put as many irons in the fire as the furnace will hold, if you time them rightly about their coming out. But don't try to hammer out all at once, or attempt to shape an eel-spear and a horse-shoe nail at the same blow. A wise builder will have the masons busy here, and the carpenters there, and much work proceeding with equal pace, but he does not draw up the specifications for a new house while he is draughting the plan of another. We may set out a tree that will be growing while we sleep, wind up a clock that will run its round while we run up town on an errand; but we don't set our trees nor wind clocks while running of errands or while asleep.

It is wise to have things so situated that there be no chinks between our jobs; no time wasted in taking up another when one is ended, and that, when really tired of one, we can refresh ourselves by labouring at another. But it is wasteful to turn from one undertaking to another while yet fresh enough to push the first on to a conclusion. One thing at a time, and that thoroughly, is the secret of success in all great attainments. Crowd the inspiration in between narrow banks, too narrow to allow of two jobs to ride abreast, and you can float down it any task you have attempted, though as large among our common labours as a seventy-four is among other ships. But widen the stream to accommodate a score of trifling tasks, and half of them will stick at sand bars and be left for another tide.—*New York Times.*

A Chapter on Hints.

MUCH of our knowledge is derived from the briefest hints which are often received in a most unexpected manner. The most valuable inventions have been the result of a casual remark or observation. The drain tile was derived from a hint of a gardener. The steam engine was said to have been hinted at by the steam from a tea-kettle, while the valves were made to work by machinery from the hint given by the boy who tended them, and made them work by a string attached to the machine in order that he could play.

If we notice the manner in which we read an agricultural paper, we shall find that we catch a hint here and a hint there, and we may think ourselves abundantly rewarded if we can find one good hint a week in that direction. There is another way in which we receive hints, and that is directly from others. A farmer had heard some new method of managing his affairs which he thinks an improvement over the old method, and immediately writes it out briefly for the *Farmer*, and his neighbours all receive the benefit of it. We never go into a machine shop of any kind, without catching some new hint worth remembering. Some apparently unimportant remark is sometimes made in the presence of a boy. It is a hint to him. He catches at it and his whole future course for life is shaped by it. But few of the important events of our lives are made up from mature deliberation. It is quite as likely to be the result of a hint caught hold of in a second of time, while we make the deliberation afterwards. We are a great believer in hints, and almost any one may be valuable if rightly improved. There is said to be a best way for doing everything, and we most generally ascertain the best way from some hint which we receive from others. Hence the advantage of visiting the operations of the man who is successful in business, and collecting such hints as may aid us in our labours in the same direction. Neighbour Jones says that he always visits his prosperous neighbour over the way every winter, just for the purpose of hearing something new, or, in other words, of catching some valuable hints about farming, and this is one secret of neighbour Jones' success in farming. He argues in this way: "If my neighbour can cut two and a half tons of hay to the acre, and raise a sure crop of corn every year, there is no reason why I should not do as well as he." This is where neighbour Jones is right.—*Maine Farmer.*

Yatel, the great veterinary of the continent, states that the rate of pulsation of the different domestic animals of the farm is as follows: The horse, 32 to 38 pulsations per minute, an ox or cow 25 to 42, a sheep 70 to 79, the ass 48 to 54, goat 72 to 76, the dog 90 to 100, the cat 110 to 120, the rabbit 120, and guinea-pig 140; of fowls, the hen 140, the duck 135.

Farmers' Sons.

THE sons of farmers commonly think that their lot is a hard one. Unlike most city youths they are compelled to perform daily toil. Their life is not one of constant amusement. They cannot see and hear as much as their city cousins. They do not dress in as fine clothes—cannot treat and be treated at the popular saloons, or visit the costly gambling resorts which abound in every city. They feel that their lot is indeed a hard one, and the highest ambition of many of them is, to arrive at that age when they can go to the city and see "all the sights."

But let us talk to our farmers' boys. You are in the right place. You are learning habits of industry and frugality. By your daily toil you are acquiring a sound constitution—a most important matter. And this is one of the reasons that our great men have all come from farmers' sons. They have grown up robust, with constitutions that could endure a great amount of mental labour, which youths from the city, with weak and feeble frames, could not stand.

If you cannot see as much as city youths, neither are you exposed to the vices and temptations of the city life, which prove the destruction of nearly all raised in a city. You are then on the right track—go ahead. Resolve to form no bad habits. Indulge in no intoxicating drinks. If you form a love for them, it is almost impossible to subdue it. Do not acquire the habit of chewing or smoking tobacco, or taking snuff. Read good books; let no opportunity for improvement pass away neglected, and you will grow up useful, intelligent men.—*Rural World.*

DEFINITION OF FASTIDIOUSNESS.—Fastidiousness is the envelope of indelicacy.—[Haliburton.]

THE HUMAN FIGURE.—The proportions of the human figure are strictly mathematical. The whole figure is six times the length of the foot. Whether the form be slender or plump, the rule holds good; any deviation is a departure from the highest beauty of proportion. The Greeks make all their statues according to this rule. The face from the highest point of the forehead, where the hair begins, to the chin, is one-tenth of the whole stature. The hand, from the wrist to the middle finger, same. From the top of the chest to the highest point of the forehead, is a seventh. If the length of the face, from the roots of the hair to the chin, be divided into three equal parts, the first division determines where the eye-brows meet, and the second the place of the nostrils. The height from the feet to the top of the head is the same as the distance from the extremity of the fingers when the arms are extended.

THE WALNUT—A GERMAN STORY.—Under a great tree close to the village two boys found a walnut.

"It belongs to me," said Ignatius, "for I was the first to see it."

"No, it belongs to me," cried Bernard, "for I was the first to pick it up;" and so they began to quarrel in earnest.

"I will settle the dispute," said an older boy, who just then came up. He placed himself between the two boys, broke the nut in two, and said:

"The one piece of shell belongs to him who first saw the nut; the other piece of shell belongs to him who first picked it up; but the kernel I keep for judging the case." "And this," he said, as he sat down and laughed, "is the common end of most lawsuits."

SENSE OF SMELL IN DOGS.—The author had a black pointer slut (from the kennel at Lennox Castle) which, while shooting on a moor in Argyleshire, he had severely rated for eating some carrion, part of a dead and putrid sheep. Passing to leeward of the same carrion about an hour afterwards, "Bess" evidently remembered the former rating, and, giving an expressive look to her master, continued the hunt. The stench from the carrion was so great as to be almost insupportable, and hurrying past it the author was surprised to observe the pointer, generally a most obedient animal, make a sudden wheel, and "draw" directly upon the carcass, from which no whistling or command could prevent her. An advance to check her led to only her steady and regular approach, making point after point, to the dead sheep. Annoyed at this, he seized her by the neck and drew her away, when at that moment a cock grouse rose from the very mass of carrion, where it had possibly been feasting on maggots, and gaily crowing, flew down the hillside, but was in a few minutes afterwards safely bagged. After the bird had gone, the pointer at once cheerfully resumed her hunting. Now, here was the sense of smell so powerfully discriminative as to detect the presence of one small bird, from which not very much scent could come, amid the horribly tainted air from the dead sheep.—*From "Shooting Simplified," by James Dalziel Dougal.*

DEATH TO RATS.—During the winter months rats naturally resort to barns and ricks both for shelter and food, and are consequently a great nuisance to farmers. For the benefit of the readers of the *Michigan Farmer* we give them the preparation of Dr. Uca, a celebrated German chemist. This compound is a dead shot, and if used will send them to "paris unknown," quicker than "Costar's Exterminator," as it contains much the same ingredients. Farmers, if you are troubled much with rats try it—you can obtain the articles at any drug store:

Melt hog's lard in a bottle plunged in water of temperature of 150 degrees Fahrenheit; introduce into it half an ounce of phosphorus for every pound of lard then add a pint of proof spirit of whisky; cork the bottle firmly after its contents have been to 170 degrees, taking it out of the water and agitating till the phosphorus becomes uniformly diffused making a milky looking fluid. The spirit may be poured off on the liquid cooling, and you then have a fat compound which after being gently warmed may be incorporated with a mixture of wheat flour or sugar flavoured with oil of rhodium or oil of anise seed &c. and the dough, on being made into pellets, should be laid at the rat holes; being luminous in the dark, and agreeable both to their palates and their noses, it is readily eaten, and proves certainly fatal. The rats issue from their holes and seek water to quench their burning thirst, and they commonly die near the water.—*Michigan Farmer*.

Markets.

Toronto Markets.

"CANADA FARMER" Office, Oct. 15, 1865.

Autumn, with its delightful, cool and genial days, has now fairly set in and the harvest is now as far as cereals are concerned, over and farmers we think have on the whole reason for congratulation on the unusually favourable results. The crops have been heavy and prices exorbitantly high. Never since 1856 has there been a more general business more animated and brisk throughout the Province. The barley crop, valued at three millions of dollars, at least one-third has already found a market, and of wheat and other grains, as much more in value, has been brought out. The sales of cattle, sheep, dairy products, &c., have been immense, and it may safely be asserted that at least three millions of dollars have already been realized by Canadian farmers for the products of the present cereal year. Not only has the supply been large, but this season has also been remarkable for an unusually active demand and high prices, for which favourable features we are mainly indebted to the United States—where just now on account of the changed condition of the country, the return of Southern trade and the partial failure of the crops in the great wheat-producing districts of the West, the supply is altogether inadequate to the immense and exceptional requirements. In some districts butter has become a luxury, having reached the enormous price of 89c. per pound. Owing to the immense number of cattle that are daily being shipped to the other side, beef and mutton will, in all likelihood, reach unprecedented prices during the coming winter. The prices of live stock continue steady but advance under the demand, and may be expected before long further to rise. Large orders have been received from England for Canadian oats, and already several shipments have been made. If by the abrogation of the Reciprocity Treaty, the American market is closed to us, except at high duty, it is satisfactory to know that the English market can absorb all our surplus earthen grains, the cultivation of which, it was thought, would be unprofitable in the event of the American market being made unavailable. Of all the crops in the United Kingdom, oats and barley are this year the shortest. The average yield of oats is 48 bushels to the acre, this year it is estimated at 24 or a loss of 14 bushels, of barley the average is 40 bu. heis, this year it is only 32 bushels or a loss of 8 bushels to the acre. The orders that have been received in Montreal have, we hear, been in the vicinity of 18s for oats, and 34s for barley, including cost of freight and insurance.

Flour—market nominal, no stocks and few transactions. Inquiry good. No. 1 superfine at \$8 00 to \$8 50, extra do. at \$7 00 to \$7 25; superior extra at \$7 50 to \$7 75, and higher.
 Fall Wheat—in fair demand and steady, at \$1 42 to \$1 56 on the street; smutty, \$1 33 to \$1 35.
 Spring Wheat—quiet; selling on street, at \$1 03 to \$1 10, and higher.
 Barley active, at 72c to 80c per bushel, 75,000 bushels in during past fortnight.
 Peas—steady, at 63c to 70c.
 Oats in good demand, at 27c to 30c.
 Corn unchanged.
 Provisions—improving: Butter good supply at 19c to 22c per lb for rolls wholesale, dairy, in tubs, 16c to 19c per lb.
 Cheese—more plentiful, wholesale 11c; to 12c per lb; retail 14c to 15c per lb.
 Eggs—market steady, with fair supply, fresh 13c per dozen on the street.
 Potatoes (Irish)—Plentiful, and of excellent quality, with fair demand, wholesale 25c; retail 30c.
 Turnips—demand, but slightly higher, prime cuts 9c to 12c per bushel, second and third quality 7c to 9c per bushel.
 Mutton—fair supply, and in less demand, at 8c to 12c per lb, hand quarter 12c per lb; fore quarter 8c per lb.
 Hogs—dressed, 9 per cwt.; pork, quiet; \$24 to \$65 per brl, prime do \$21 to \$22.
 Live Stock—dressed weight, 1st class \$5 to \$6 00; 2nd class \$4 to \$4 50; interior, \$3 to \$3 60; calves, small supply, \$4 to \$7

each; fair quantity in the market, sheep, \$3 50 to \$4 00 each per car load; lambs, \$2 to \$3.
 Hay—in good supply at from \$9 to \$11 per ton for new, old scarce and higher.

Hamilton Markets, Oct. 10.—Wheat—White winter firm and active, at \$1 30 to \$1 60, red winter, \$1 27 to \$1 35; spring, little offering, quoted nominally at \$1 16. Barley, receipts only 2,000 bush. On the street the quotations show a decline of 2c, from 72c to 70c being paid. Peas, 60c to 65c, receipts light. Peas, on street 60c to 65c; sales on 'Change 5,000 bushels at 71c, f. o. b., and two car loads at 68c, f. o. b. Oats, receipts light, demand only for local wants; quotations unchanged, at 28c to 30c. Potatoes, plentiful at 45c to 60c. Cornmeal, retail at \$1 75 to \$1 85. Bran, 50c to 62c. Butter is very scarce, and the quotations are very uncertain. Grocers are paying as high as 23c to 25c for local wants. Eggs, 13c to 14c per dozen, by the brl, 12c. Pork, m. ss, \$23 to \$25, prime m. ss, more offering. Hams, covered, 15c per lb, covered, 1. c. Bacon retails at 14c to 16c per lb.; wholesale, 13c. Hay, \$3 to \$9 per ton. Tallow, rough, \$5 to \$6 per cwt.; do, rendered, \$7 to \$7 60. Hides, green, trimmed, \$5; do, untrimmed, \$4 50. Calfskins, 7c to 8c per lb. Sheepskins and Lambskins, 50c to \$1. Wool, good combing, would bring 45c; pulled lamb's wool at 40c.—*Spectator*.

London Markets, Oct. 10.—Fall Wheat, per bush., choice, \$1 15 to \$1 55, do, inferior, \$1 to \$1 00. Spring Wheat, do, \$1 03 to \$1 08. Barley, do, 64c to 66c. Oats, do, 25c. Peas, do, 55c to 58c. Hay, per ton, \$8 to \$9. Butter, fresh, per lb., 22c to 25c. Butter, kg, per lb., 19c to 21c. Potatoes, per bush., 30c to 40c. Flour, per 100 lbs, \$2 00 to \$3. Eggs, per dozen 8c to 10c. Hides, dry, p. r. lb., 7c; Hides green, 4c to 6c. Lambskins, fresh, 6c to \$1 12; Calfskins, per lb., dry, 12c to 14c; Calfskins, per lb., green, 8c to 9c. Wool, per lb., 40c to 45c.—*Prototype*.

Guelph Markets.—Fall Wheat per bushel, \$1 20 to \$1 62. Spring Wheat do, \$1 04 to \$1 10. Oats do, 2c to 25c.—Peas do, 60c to 65c. Barley, do, 60c to 66c. Hides, per 100lbs, \$5 to \$5 50. Beef, per 100lbs, \$3 50 to \$6. Pork, per 100lbs, \$6 to \$7. Straw per load, \$3 to \$3 60. Hay per ton, \$7 to \$8 50. Wool per lb, 40c to 42c. Eggs per dozen, 10c to 12c. Butter per lb, 15c to 20c. Apples per bushel, 50c to 75c. Sheepskins, 60c to \$1 25.—*Herald*, Oct. 2.

Galt Markets, Oct. 10.—Flour, per 100 lbs, \$2 50 to \$3 50. Fall Wheat, per bushel \$1 25 to \$1 50. Spring Wheat, per bush., \$1 to \$1 04. Barley, do, 60c to 65c. Oats, per bush., 25c to 30c. Flax Seed, per bush., \$1 50 to \$1 75. Butter, per lb, 20c to 22c. Eggs, per dozen, 12c to 13. Straw, per load, \$2 to \$2 60. Peas, do, 55c to 60c. Hides, per 100 lbs, \$4 to \$5. Pork, per lb, 10c to 12c. Pork, per 100 lbs, \$4 50 to \$5 10. Cheese, per lb, 6c to 8c. Hides, p. r. 100 lbs, \$4 to \$4 50. Calfskins, over 8 lbs, 8c. Lambskins, 7c to 12. Pelts, 50c to 60c. Potatoes, 50c to 40c. Hay, \$3 to \$10.—*Reformer*.

Goderich Markets, Oct. 12.—Our market on Saturday last was the best we have seen since 1859-63. A very large quantity of grain changed at \$1 18. Fall Wheat \$1 18 to \$1 22, Spring do 98c. Oats, 22c. Flour, \$5 25 to \$5 75. Barley 55c to 60c. Peas, 45c to 60c. Wool, 35c to 40c. Sheep, \$3 to \$4. Lamb, \$2. Hides, (green) \$2 75. Butter, 20c to 22c. Potatoes, 20c to 25c. Eggs, 12c. Hay, now, per ton, \$3 to \$9.

Montreal Markets, Oct. 12.—Laddlaw, Middleton & Co. report as follows: Flour—receipts 3,400 barrels, market firm, \$3 per bbl, \$3 25 to \$3 60; extra, \$7 40 to \$7 75, fancy, \$7 00 to \$7 25, Canada superfine, \$4 10 to \$4 75, low and medium samples dull. Welland Canal active at \$8 17 to \$8 10, coarse flour nominal. Wheat, No. 2 Midway, sold at \$1 22 1/2. Corn nominal. Peas—cargo sale at 90c per 60 lbs. Pork rather firm. Ashes—first and second pots \$5 50; thirds \$5 90; firsts, pearls, \$5 71; seconds \$5 40.

Advertisements.

SPLENDID FARM FOR SALE.

ONE of the Best Farms in the County of Hastings is now for sale, or to let, being the north half of Lot Thirteen, to the 1st Concession of Lawdon, containing 100 acres of magnificent land, in a thorough state of cultivation, also a large Brick House, very prettily situated, which cost £500 to build, with the requisite Barns, Stables, sheds, Orchard, &c.

There is excellent Duck and Woodcock Shooting, and Trout and other Fishing in the vicinity.
 Price, £900; one-half of which may be allowed to remain on mortgage.
 Rent per annum, £75.
 For further particulars, apply to the proprietor, the 1st of November, to the proprietor,
 THOMAS EVANS,
 Belleville.
 If after that date, to
 MESSRS. DEAN & DIAMOND, Barristers, &c., Belleville.
 The above is an opportunity such as rarely occurs to any one wanting a fine farm. v220-31*

FALL PLANTING. TORONTO NURSERIES.

THE season for Fall Planting being at hand, the attention of Purchasers is requested to the STOCK OF FRUIT AND ORNAMENTAL TREES, &c., for sale at the "TORONTO NURSERIES" this Fall. The varieties are of the most thrifty character, and are warranted to give satisfaction.
 All Orders by post punctually attended to.
 I would call attention to the large number of First Prizes awarded to my productions at the late Provincial Exhibition, showing that my Nurseries occupy one of the proudest positions in the country.
 Visitors to the Nursery will receive a cordial welcome and any information, or a descriptive Catalogue will be promptly forwarded on receipt of two cent stamps.
 GEORGE LESLIE,
 Toronto Nurseries,
 Leslie St. O.
 October 15, 1865. v220-21

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



THIS preparation is a certain remedy for removing those destructive affections. Every day brings additional testimony of its thorough effectiveness. No flock master should be without it. Prepared only by
 HUGH MILLER & CO.,
 Chemists, Toronto.
 October 15, 1865. v220-31-2123

AUCTION SALE OF FARM PROPERTY, MILL PRIVILEGES, &c., &c.

THE Subscriber will offer for sale, by Public Auction, at his Auction Rooms, in Brantford,
 ON 21st OCTOBER, 1865, AT NOON,
 That valuable Property known as the

"STRATHMORE FARM,"
 Consisting of parts of Lots 13, 14, and 15, in the 2nd and 3rd Concessions, in the Township of Brantford, in the County of Brant, containing about 218 acres, of which upwards of 116 acres are cleared.
 The Property is beautifully situated on the banks of the Grand River, about midway between Brantford and Paris. There is a good House on the premises, and Stables, Barn, &c., &c. A large sum has recently been expended on Fences and Buildings. There are valuable Mill Privileges on the Property, and also a large Stone Building intended for a Mill.
 The Farm is now leased to Messrs. CAMPBELL, but by the terms of the lease possession can be obtained in the event of making a sale.
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 For further particulars apply to MESSRS. MARTIN & BARCE, Barristers, Hamilton; W. TORREN, Esq., D. BROOK, Esq., and the Auctioneer, Brantford, where a plan of the Property may be seen.
 HENRY RACEY,
 Brantford, 2nd Oct., 1865. v220-21

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