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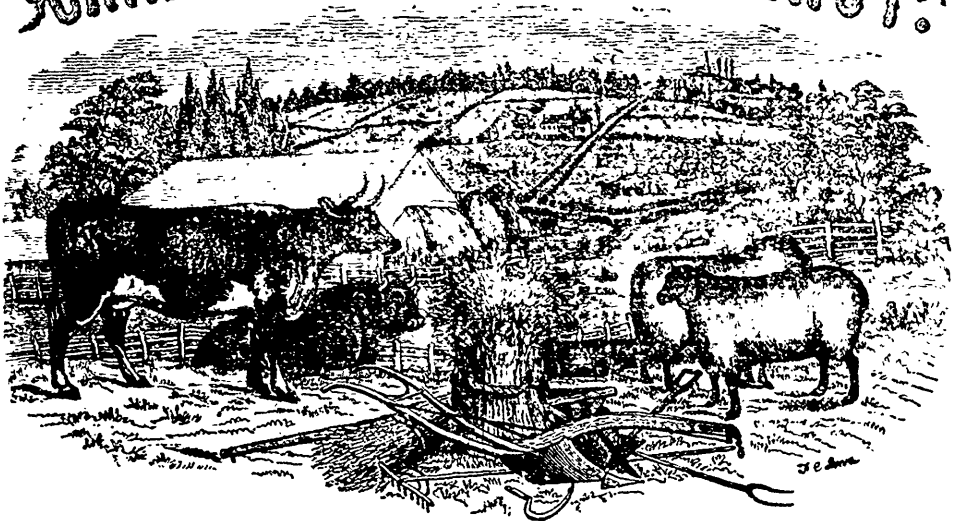
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CANADIAN AGRICULTURIST.



"The profit of the earth is for all; the King himself is served by the field."—ECCLES. v. 9.

GEORGE BUCKLAND, {
WILLIAM McDUGALL, }

{ EDITOR,
{ ASSISTANT EDITOR.

VOL. II.

TORONTO, SEPTEMBER 1850.

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TERMS:

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THE BOARD OF AGRICULTURE.

Though it is much to be regretted that there is so little known of the wants of agriculture and so little interest taken in promoting its success by our legislators, we are encouraged to believe that by slow degrees we shall in a few years obtain a recognition of the just demands of the Canadian agriculturist. The Bill drawn up by a committee of the Agricultural Association for the establishment of a Board of Agriculture and for organizing Agricultural Societies on a better

system than the present, which is no system at all, was presented to the Government at the commencement of the session. It was read by the Attorney General West and the Inspector General, and they were both understood to approve of the measure, and promised to introduce it into Parliament. It was however entirely overlooked till within a few days of the close of the session. Finding that it was likely to be slurred over as a matter of no importance compared with bills to establish monopolies and to compel people to employ a particular class of doctors, which occupied so large a share of the attention of Parliament, Mr. McDougall, (proprietor of this paper) who drafted the Bill, determined to bring it under the notice of other members. Hon. Mr. Ross promised at once to introduce it in the Upper House. But upon his consulting with some members of the ministry they agreed to take charge of the measure in earnest, and accordingly Hon. Mr. Lesslie introduced the Bill and it was printed. At this stage a member of the Lower House who entirely misconceived the provisions of the Bill relating to the Government grant, threatened his opposition, which although at any other part of the session would have had

very little effect, yet as only two or three days remained it would have been easy for a single member by a pertinacious opposition to have thrown the whole measure overboard. Hon. Mr. Ferguson, who was heartily in favor of the entire measure, thought it better to separate the Bill and pass the part relating to the Board, than to run the risk of losing the whole in the Lower House. The result was that the first twelve sections of the Bill as printed in the June No. of the *Agriculturist* were passed with but few of the necessary verbal alterations and the remainder dropped. Hon. Mr. Price took charge of the measure in the Lower House, and on the defects of the Bill in its then shape being pointed out by Mr. McDougall, the Hon. Commissioner of Crown Lands promised to introduce such amendments as were necessary to set the Board in operation, leaving the remainder of the Bill for consideration next session. Mr. McDougall accordingly adapted the Bill to the present Societies, and added the clauses with slight modifications, requiring annual reports from County Societies and granting a sum of money for the use of the Board. These amendments would have enabled the Board to commence operations, and at the next session the whole machinery might have been completed. But Mr. Price afterwards stated that if any amendments were made which would render it necessary to send the Bill to the Upper House for concurrence, it would be lost for want of time. He therefore carried it through its several readings without any amendments—not even granting the small pitance that was asked to enable the Board to *do* any thing. This is the way the Legislature sought to promote improvement in agriculture! Salaries of public officers were increased, who, in our opinion, might be dispensed with altogether; pensions were granted, in one case, to a person already a pensioner; £15,000 were granted for a site and *buildings* for a Normal School, to be expended at the discretion of irresponsible parties, when one third of the money would have been amply sufficient; public money was voted without stint for objects of little use to the people of Canada,—thousands upon thousands,—as if the golden washings of a Sierra Nevada were deposited in all our vallies, yet *one* thousand pounds a-year to be expended in collecting and diffusing information relating to that branch of productive industry on which *all* our wealth depends—expended by a popularly organized Board making a yearly return to the Legislature of their labors and expenditures could not be thought of, or voted, for want of time!!

We leave the farmers of Canada to their own reflections on this subject. There is a cause for

the contempt with which their interests are treated, and they have it in their power to remedy such a state of things. We make no reflections against any political party, for as our Legislature is at present constituted, all parties there appear to us pretty much alike. The Legislature is in the hands of place-hunting, time-serving, and upon all questions affecting the industrial pursuits of the people, *ignorant* lawyers. Until a greater number of intelligent, practical, patriotic men, whose interests are directly identified with those of the productive classes, are returned to Parliament, we shall have to complain of extravagance in every thing that will benefit office-seekers and non-producers, and the utmost indifference and parsimony in every thing that would advance the interests of the great mass of the people.

As to the Board of Agriculture, incomplete and incongruous as the law is, we would recommend the County Societies to nominate seven persons as members of the Board at their next annual meeting, and transmit their names as the law directs. The act says that the "Directors" are to "elect seven persons at their first regular meeting next after the annual meeting of the Society." This was altered, so that the *Society* might at its annual meeting elect the Board; but the amendment was not attended to. The simplest plan will be for each County Society as at present organized, to appoint at the annual meeting all its officers and active members "Directors" and after the business of the meeting is over, let these Directors hold their "first regular meeting" and agree upon the members of the Board at once. The probability is that during the next session the measure will be completed and a grant made for the use of the Board, but in the mean time it will be a step in the right direction to organize the Board as soon as possible.

We had nearly forgotten to mention the name of the member of the Lower House who has the honor (!) of defeating the Bill as introduced in the Legislative Council. Mr. Ferguson, the member for Waterloo, is entitled to the credit of defeating it, and the ministry to the credit of neglecting the whole measure till the last moment. This gentleman although of the *legal* fraternity, evidently did not understand the present law relating to Agricultural Societies, and he was equally at fault as to the effect of the proposed Bill. He declared in the presence of Hon. Mr. Ross, Mr. Buckland, and the writer, that by the present law township Agricultural Societies are not *entitled* to a share of the Government grant! That he was "tired of answering that question." The act says in plain words, "a *proportion* of the District bounty *shall* and may be granted to each County Riding or *township* Agricultural

Society, and paid to them by the District Society in proportion to the money that each County, Riding, or Township Society, shall have subscribed." 8 Vic., cap. 57, sec. 11. According to our legal reading the word "shall" in a Statute is imperative, and an action would lie to compel the District Society to apportion the grant. The proposed Bill did not alter the law as to the mode of division, not because those who drafted the Bill thought no improvement could be made in it, but because objections and difficulty might have sprung up in the minds of some whose cordial co-operation it is most desirable to secure. The only new provision affecting the amount of the grant to any Society was this, "that not more than three-fifths of the sum granted to any County Society shall be subject to division among township or Branch Societies."

The object of this proviso was merely to prevent difficulty between the Township and County Societies which has arisen in several instances, by enabling the County Society to retain, *if it choose to do so*, two-fifths of the grant for its own use. It was intended to *benefit* the County Societies, which as we think, and we believe, as is generally thought, it is desirable to encourage in a higher degree than others. Yet, it is a County Society, viz., that of the Wellington District, which through Mr. Fergusson, as he stated, opposed this liberal Bill! A Society be it remembered that *has never contributed a sixpence* towards the Provincial Association, in the success of which, the honor of the whole country is involved! We leave any further remarks to a future occasion, merely observing, that those gentlemen who gave their time and thought to the subject of improving and reducing to a system the present absurd and contradictory law of which we have heard constant complaints for the last three years, did so with the sincere desire to promote the agricultural interests of the Province and not of any *section*. The bill was printed a month before it was brought up in the House and no complaint was made against it; very many persons besides those concerned in its preparation who understood the subject, highly approved of it; a similar system is in successful operation in one of the lower Provinces and in several of the neighboring States; and we think that those persons who wished to defeat it for some reason of their own, were bound to point out a better plan.—[Assistant Ed.]

KILLING SORREL.—According to the *Michigan Farmer*, plowing sorrel, with a shallow furrow, late in the fall, leaving the roots exposed to the action of the frost through the winter, has been found effectual in destroying that pernicious plant.

HOME THE BEST "LOCATION."

Mr. Solon Robinson, the celebrated American agricultural traveller and writer, made a flying visit to this part of Canada a few weeks since on business. He honored us with a call and we endeavored to show him what attention we could during his stay. As Mr. Robinson has visited and examined leisurely with the eye of a shrewd, practical agriculturist every state of the Union, we of course improved the opportunity of increasing our stock of information from one so well qualified to give it. In the course of a ride a few miles north from this city, we put the question mentioned below, and received our answer very much as we expected. We stopped at the house of a friend who owns 200 acres of good land within 10 miles of Toronto, lives in a substantial brick house and enjoys every comfort that the farmer can reasonably wish, but still as we passed along we noticed a board with these words "This Farm for Sale." While seated at the tea-table which smoked with buckwheat pan-cakes, and new made bread, studded round with delicious honey, excellent butter, two or three kinds of preserves, pies and sweet cakes, our conversation turned upon the painted board and the "best location" for the farmer. Mr. R. detailed some interesting facts without giving a very decided opinion. In the following letter he seems to have made up his mind after having seen and learnt more of Canada. We trust those of our readers who have allowed themselves to become discontented with their "home," will consider well Mr. R.'s remarks before they determine to change it.

To the Editor of the *Agriculturist*.

While with you the other day in a pleasant ride you were kind enough to give me up Yonge Street, you made the inquiry "after having as you have, travelled all over the United States as an agricultural traveller and writer, and having also seen somewhat of Canada, where would you choose a location to carry on farming, if now about to make a settlement for life?"

I then told you that you had put a very difficult question, but I would endeavour to answer it

in some way at my earliest opportunity. Yet the more I reflect upon it, the more difficult it grows. In early life I emigrated from the rocky hills and cold hard soil of Connecticut, to the surpassingly rich and easy soil upon the Grand Prairie in the North West corner of Indiana. In this I did well; for stricken with poverty at home, with the weight of an old established society above me, how could I rise? Had I been in the enjoyment of a comfortable home and position in the world, should I have acted wisely to "sell out the old homestead," and seek a new home in the West, as thousands have done and repented ever after? Rich as are all the western prairies, it must be borne in mind that they abound in fever and ague also. With this exception they certainly offer greater inducements to the *poor* emigrant, than any other region I know of, for the land is not only capable with very little labor of providing abundant crops, but it can be purchased so cheap that all may become owners. Fifty dollars will buy forty acres.

Some parts of Virginia offer great inducements to northern farmers to emigrate thither. Lands are cheap, and by good and improved tillage, may be renovated and made productive. In lower Virginia, conveniences of navigation are great, and climate mild—really charming in winter compared to ours. Ah; says the Canadian, that's the place for me—I dislike our long cold winters. I'll go there. Stop a moment. Will it be healthy? Is it not rather billious and just a few mosquitoes and some other trifling objections in summer that will balance your objections to your own winter.

And thus sir, I could go on all night showing the beauties of a hundred different sections, but always finding an equivalent of objections, till every part of the whole country is placed upon a general equality with the other. Let men learn contentment and study to make home happy instead of always running off "to the West" or some other place in search of what they might find just as well at home.

In the fall of 1834 I located, the first family in the North West county of Indiana, *fifteen miles from neighbors*. My family still reside there, though on account of my health, I do not; being as you are aware connected with A. B. Allen & Co's Agricultural warehouse and paper in New York.

But the point I wish to illustrate is this,—In these few years I have seen the county settled tolerably thickly around me, and still there are scarcely a dozen families of the original settlers now remaining. Would you know the reason? It is not that it is unhealthy, or unproductive;

or any other objection that can be named; but solely that there is some other untried place a little further West, and that is always the El Dorado, *until it is tried*. And I notice when the old homestead has once been parted with, contentment with a new one is rarely ever found.

You of course begin to see the answer to your question: that my opinion is that the best place is where *home* is. Let those that have none, emigrate till they find where they can get one and then settle and go to work and improve and beautify it that they may be contented and happy, and not be looking out for a new one in every newly discovered region. Why should a Canadian farmer, situated as our friend is, whose offer to sell his farm brought on the conversation, ever seek for any other location? When I am answered that question, I will further answer yours.

In the mean time I remain most respectfully your friend "the agricultural traveller."

SOLON ROBINSON.

Kingston, Aug. 19, 1850.

FARMERS' WORKSHOPS.

EVERY farmer will find a benefit resulting from having a shop in which he can repair during the rainy weather, or at other times, his broken plow, harrows, and the wear and tear, incident to the usage of farming implements. The farmer who has a small building, or one of a size adapted to his wants, provided with a forge, anvil, hammers, bench, and a few good tools, will find himself amply repaid by the saving of time alone, spent in running after work. In the course of the year the enterprising farmer has a hundred little jobs mending in wood and iron, which if he has the means he can do himself.

If a chain is broken or a new post wanted he can soon remove the obstruction and proceed with his business; whereas, if he is obliged to go three or four miles to a mechanic, which is often the case in the country, when his work is pressing him, he suffers seriously from the loss of time.—*Ex.*

SMART WEED is almost a sure remedy in a case of cholera. Steep and drink the same as in other herb tea. In the next place it is worth \$5 per hundred for a stock of cattle, if it is cut and well cured while in full bloom. Give an ox, cow, or horse, one pound per week, during the time they are up to hay, and it will keep their bowels and hide loose. It is an excellent physic. If a horse has one pound a week, there is no danger of his having bots or worms of any kind; and they will eat it sooner than they will the best of hay.

THE ADVANTAGE OF GREEN CROPS TO A FARM.

"In travelling to various parts of England, I have remarked," says a writer in one of the English papers, "how varied are the systems of culture, and the succession of crops. In one part I have seen more than half the land under the green sward, as the red man district of Leicestershire. In another part I find no green sward but what comes under a rotation of cropping, or Down Land, such as the Cotteswold and Chalk hills.

In Cornwall I observed, some years ago, that the old cultivators continued to crop the ground with cereals, until it could produce no longer, and then it was put down in grass to rest; that is, by sowing amongst the crop of oats grass seed, perhaps swept out of hay-lofts, with all manner of weed seed. In this state it lay for three or four years, until it became so mossy and weedy that it would no longer produce grass; then it was broken up for wheat, by a process which, to us of the eastern part of England, was unique. A granite stone roller, about five feet long and 12 inches diameter, had steel edges or cutters fixed at every six inches of its length, projecting from the surface of the stone about three inches; this instrument was run over the grass-land one way across, and ploughed the other way; thus was the surface of grass cut into small squares, and thrown up roughly to rot; after which it was (during the early autumn) buried for wheat or other corn. The farmers of Cornwall are fast passing into a superior system, and no longer is there need for clauses in their leases restraining them from taking more than three crops of corn in succession.—(See *Journal of Royal Agricultural Society*, vol. 6, part 2, p. 434.)"

The object towards which every system of culture should have tendency is, that of making the earth produce the greatest amount of return from the smallest possible expense; therefore the endeavour should be to extract from the soil a food for some variety of animal or other, and endeavour at the same time to increase permanent fertility. This only is to be done by leaving something behind, beyond what we take out of the soil; therefore, either more must be put on the surface, in the shape of manures, for the succeeding crop than it requires, or a portion of the crop must be left on the ground to constitute a pabulum for future crops, so to form a vegetable humus in the soil. This humus is the blackened material which is found in the pan under the usual tillage, and is the result of culture and manurings. The same humus is shewn by the blackened fertile soil of old garden grounds.

The object then, of a proper succession of

crops is, that a something should be left behind from each crop, which shall be of service to a succeeding one, and not to call on the soil to yield in succession the same valuable materials that are detracted by a crop of wheat, which crop is, in all places, considered as the great desideratum. Green crops, therefore, when consumed on the land, are highly fertilizing operations; and at the same time, if the green crop is such an article that is suitable to the animal reared or fattened on it, is sure to be highly remunerative as a marketable return. Tares, clover, turnips, &c., fed on the ground, will be a charging the soil with a pabulum for future crops; and, after either of these expenditures, wheat may follow with propriety; and if these crops are only half consumed by the animals, (there being plenty of food on the farm) the advantage of ploughing in the half-consumed vegetable will be felt in the succeeding crop, for then, what is left will not have had detracted from it that portion which would have gone to constitute blood, flesh, bone, &c., in the animal that might have consumed the same.

Assertions are sometimes made by farmers, that to save a second crop of broad clover for seed will be more enriching to the land than if cut before it is ripe; that forming seed does not detract from the land; but the contrary is the fact. Producing seed is, in every case, the most exhausting of particular matters to the soil.

One of the greatest benefits to be derived from a proper succession of green crops, is the aid which the tap-rooted plants afford, by penetrating beneath the hard pan into the subsoil, there extracting and bringing up from a depth below fertilizing matters that may be deficient at the surface. These, as food to the plants, are most likely to be the aqueous particles that hold solvent in them various portions of alkalies and acids, phosphates and carbonates; and these matters are deposited on the surface at every fall of the leaf, combined with the solidified parts of air and water. Turnips, mangold wurzel, and other broad leaved plants that successively deposit their lower leaves, are enriching the surface with much organic and inorganic matters, which constitute their bulk; and this they do even if the bulbs and tubers are carried from off the land at an early period, when they have scarcely done increasing in bulk.

On referring to the analysis handed to us by Sprengel, we find that all broad-leaved plants take up from the soil much more of the fixed ingredients than do the farinaceous crops that have narrow leaves. Cabbage, beet-root, Swede turnips, &c., take up double the quantity that

would be extracted by a crop of wheat; hence the advantages of leaving the produce from these crops on the ground, and in particular their foliage.

There are instances of arid soils in England and on the continent of Europe, and in the United States, which when first taken possession of by man, were not fit for agricultural purposes; but on their being planted with trees of various kinds that yearly shed their leaves, the ground has become highly enriched for many crops that require the alkalis and carbonaceous matters to build up their structure, the alkalis having been obtained from below by aid of the roots, and carbon supplied from the carbonic acid which is solvent in the air.

The green crops on a farm must be made in proportion to the corn crops that are to be consumed. High farming may be denominated such a system that the principal part of the produce is consumed on the land, the wheat being the only crop of grain sent to market. The hay, straw, and green crops are best sent to market on four legs, in the shape of reared or fattened animals: these, according to the late prices of animal produce, have answered the best purpose for those farmers who could adopt it, and in particular those who could breed and rear their own stock; and for the land, such practice will at all times make that in the best condition.

Experience has taught the farmer, whenever he can spare a green crop, (it not being wanted for his animal) if the crop is rolled down before it obtains its full growth, and ploughed into the soil, that it is a great enricher of the same for succeeding produce. By this act, not only are all the inorganic matters deposited, but also a mass of organic in the shape of the solidified ingredients of air and water. Vetches, buck-wheat, rape, &c., may, with great success, be often ploughed into the soil for a succeeding and more valuable crop. Mere casualties have often proved to farmers certain facts; for instance, turnips have been fed off by sheep on one part of a field, and in another part of the same field the like quantity of turnips have been rotted by winter frosts and then ploughed in for a succeeding crop of wheat: it has always been the best in that part where the rotting had taken place, for this obvious reason, viz., that no part of the crop had been carried away in the shape of bone, flesh, and blood, but all, organic and inorganic, had been buried for the service of the succeeding crop.

On referring to ancient works on agriculture, it could be proved that the Roman nation were well aware that a judicious succession of crops

was necessary, and that several grain crops ought not to succeed each other. Pliny informs us that the Romans were conscious of the utility of alternating leguminous with farinaceous crops, the former acting as restoratives to the land, while the latter were exhausting ones. By burying vegetable matters in the soil, they give out their gases progressively as decomposition proceeds; thus the process acts as an aration of the soil, imparting warmth, and charging it with the gases obtainable from the air in the process of following. A rotation of cropping may, therefore, be adopted, by means of which the practice of following may be totally discarded.

In confirmation of the statement that the benefits to be derived from green crops, and of having one of these succeed between each of the cereals, we may quote the practice of Mr. Morton, on Lord Ducie's model farm, in Gloucestershire, where he is able to grow wheat with success every alternate year, half of all the arable land being occupied with that grain—this grain being chosen for the experiment, because it is the most remunerating one; and yet the land is not by any means exhausted, as is shewn by the increasing yearly produce, the average of the farm being often above five *qrs.* per acre.

The practice of Mr. Morton is to vary the green crops, so that clover, for instance, should not be repeated on the same spot oftener than every tenth year; and this he is enabled to do by having five varied green crops, taking their places in succession one after the other regularly. We are not quite sure of the order of this succession, but it is sometimes after the following with respect to the green crops.

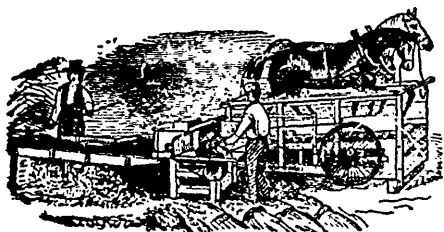
The manuring is of course ordered in such a scientific manner, that it shall supply the exhausting matters that are abstracted from the land. The soil of the farm is of a varied rocky character, a part being on the mountain limestone, other portions on the magnesian limestone, and another on the grit of the old red sand, or Silurian district.

THE ORDER OF CROPPING IS:—

- 1st and 2nd.. wheat succeeded by clover.
- 3rd and 4th.. wheat succeeded by carrots or parsnips.
- 5th and 6th.. wheat succeeded by vetches or peas.
- 7th and 8th.. wheat succeeded by turnips or Swedes.
- 9th and 10th.. wheat succeeded by beans.
- 11th and 12th.. wheat succeeded by clover.

By the above order of succession, it will be seen that a tap-rooted crop succeeds a green crop, that has its nourishment more particularly from the surface soil. It will also be evident that for the above order, it is necessary there should be ten enclosures or plots of about equal sizes. The success of this culture may, in part,

be ascribed to the first spirited outlay on the land by his lordship, in remodelling the farm, cutting down all the timber, under-draining, sub-soil ploughing, new division fences made parallel with one another, and formed into squares of about ten acres each, according to the fall of the ground—the ditches being kept open, and no wood allowed to grow in the hedges, to constitute a shade to the ground.



THRASHING MACHINES.

As in every other branch of the mechanic arts, very great improvements have been made within the last few years in agricultural implements and machines. Still it happens that in consequence of the "domesticated" peculiarities of the farmer—his very laudable habit of staying *at home*, that these improvements are very slowly introduced. The Agricultural papers and agricultural societies which have done so much good in other ways, have been of great service in extending the benefits of improved machines and implements.

The **THRASHING MACHINE**, which was looked upon with a good deal of suspicion a few years ago has now become one of the necessities of the grain grower. The sound of the flail, that simple yet efficient instrument is now seldom heard in our barns. The hum of the iron spiked cylinder has taken its place. The advantages to the farmer of having his wheat threshed out at once and often immediately after harvest so that he may sell the moment the price suits him, outweigh every other consideration. This fall particularly, owing to the bad harvest weather, a very large quantity of wheat would have been lost in the barn had not the threshing machine been at hand.

We observe that the large eight horse power machines are more in use in this part of Canada than any kind. This appears to be bad economy. Two or three farmers joining together in the purchase of such a machine may make it answer their purpose, but even in that case inconvenience will be felt and difficulties are liable to spring up between the proprietors. The kind of machine that we should prefer is the two horse railroad

powers with thresher and separator, now so much used in the Northern States. The cut at the head of this article represents one of these machines. They will thrash from 150 to 200 bushels of wheat per day and the "power" can be used for sawing wood, and well as other useful purposes on a farm. The following are extracts from the circular of one of the best makers of these machines, Emery, and Co., of Albany, N. Y., and explain its merits, cost, &c.

"The most important of the late improvements consist principally in the mode of applying the power and motion from the endless platform to the shaft of the main Driving Pulley, and obtaining the necessary motion for the **OVERSHOT THRASHING MACHINE**, without crossing bands or intermediate gearings, and at the same time dispensing with the small pinions and cogs on the links of the endless platform.

This Power, as will be readily seen in the cut, has the revolving plank platform traversing upon its own friction wheels and iron Railroad track. At the forward end this platform is supported by its small iron shafts, upon an iron reel about sixteen inches in diameter—the shaft of this reel extending beyond the sides of the frame work sufficiently to secure the strong converge or internal gear, which is about twenty-four inches in diameter. The shaft of the driving pulley (which pulley is about three feet in diameter,) is hung in like manner with the small gear upon one end, operating inside the converge gear before described, and consequently receives an increased motion in the same direction and carries the driving pulley on the opposite end, and side of the power, for driving the overshot cylinders without crossing bands or intermediate gearing—and at the same time dispense with the small pinions and cogs on the links of the endless platform.

This arrangement entirely removes all liability of breaking and wear of links and pinions (heretofore unavoidable) as the direct stress upon the links working over small pinions is wholly avoided—thereby containing **GREATER STRENGTH** and **DURABILITY** with **LIGHTER FRICTION**, without the liability of breakage of links, or the wearing of links and pinions,—(no small item in the expense of repairs in most other kinds of powers in use.) The farmer or mechanic is enabled to perform a greater amount of work, or to operate with less power or elevation, as best suits his wishes.

The arrangements for tightening the endless platform by means of joint bolts connecting with the bearings of the reel shaft is the best we have seen—as it can instantly be accomplished with a common wrench, without stopping the team.

Our platform has been considerably lengthened—avoiding the difficulty of large or unsteady horses stepping over or off at either end.

These Powers were introduced to a considerable extent last season, and wherever used side by side with the most approved powers of other kinds, have given unqualified satisfaction and been preferred,

The Overshot Threshers and Vibrating Separators, with improvements, have been sold with like success as the Powers. They admit of a level feeding table, thus avoiding accidents, (which often occur with the inclined feeding board,) by preventing hard substances, sticks and stones from getting into the machine and breaking spikes, endangering those engaged with them. The Cylinder Shaft, [of cast steel,] runs in Bronze Boxes, which are so made of two parts as easily to be adjusted when worn loose, and can with little trouble, always be kept tight. The speed of the Power is such that a larger pulley is used on the Thresher than on most others—driving stronger, with less liability of slipping of bands, which last are made of Vulcanized India Rubber. The Separator makes a complete separation of Grain from the Straw, leaving it in the best condition for the Fan Mill; thus saving the labor of several men, and doing the work better.

The Double Horse-Power is capable, with 3 or 4 men, of threshing from 125 to 200 bushels of Wheat or Rye, and the single one from 75 to 100 bushels, or double that quantity of Oats per day. They are warranted to perform as above, or may be returned to us or our Agents, of whom they were purchased within 3 months, and the purchase money refunded.

They may be had in Rochester, Buffalo, or any of the principal ports on the lower or upper lakes, by adding transportation.

Good Agents will attend to the sale of them in those places. The prices will be—

For One Horse-Powers, - -	\$85 00
For Thresher and Separator, -	35 00
For bands, wrench, oil can, extra pieces, - - - -	5 00—\$125 00
Best Two Horse Machines, complete, (\$25 more) - - - -	150 00
Fan Mills, from - - - - -	\$22 to \$28
Saw Mills, complete, - - - -	\$35

We will also furnish "Wheeler's" Machines, latest improved,

Single Sets, complete, - - -	\$120 00
Double do. do. - - - -	145 00

Terms Cash, or approved Notes and Acceptances, with Interest. To good Agents in new locations liberal terms will be given.

EMERY & CO.

369 and 371 Broadway, Albany, N. Y.

ANNUAL MEETING OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

The twelfth Exhibition of this Society took place at Exeter, July 17th, 18th and 19th. The weather was delightfully fine and a vast concourse of spectators was drawn together from all parts of the United Kingdom, with several distinguished individuals from abroad. Never was a place more superbly decorated with evergreens, flowers, flags, &c., than the good old city of Exeter, whose

citizens gave to the immense crowd of visitors a hearty English welcome.

In some departments—the implements for example—the show was not so numerous as on some former occasions. The articles appear to have been more select, sufficiently numerous to give the observer a correct idea of the state and progress of Agricultural Mechanics, without overwhelming him with the mere number of the articles exhibited. However, we find it stated that there were on the grounds upwards of 40 different ploughs, a dozen subsoil pulverisers, 30 drilling machines, 8 manure distributors, more than a dozen steam engines, 50 grinding mills and corn trashes, 2 dozen chaff cutters, 2 dozen trashing machines, 20 corn dressing machines, 14 turnip cutters, 7 oil cake breakers, 20 different carts and waggons, 11 draining tile machines, and numerous sets of draining tools, 19 sets of harness, 2 dozen cultivators and scarifiers, 2 dozen horseboes, besides numbers of horse-rakes, horse seed drillers, cider mills, hand drills, liquid manure distributors, haymaking machines, gorse bruisers, stoves and straining apparatus,—not to speak of barley humellers, barrows, bran plitters, bedsteads cheese presses, churns, clod crushers, farm railways, fencing, fire engines, forks, garden chairs, gates, hand dibbles, harness, horse power hurdles, mangles, models, pumps, ink stands, rollers, sack holders, seeds, spades, straw shakers, troughs, vegetable washers, watering machines, wheels, whipple-trees, and 60 or 70 "other articles" not being capable of being classified among the preceding. Among this large number of implements there were but few that possessed any decided novelty, the greater portion being the same as those in former years, with alterations merely in points of detail. Fowler's draining apparatus must be regarded as an exception. It works on the principle of the mole-plough and, is adapted only to level surfaces, and subsoils free from stones: it must be regarded as an invention of peculiar merit. Croskill's Portable Farm Railway was another novelty; how far it is adapted to meet the practical wants of the farmers remains to be seen.

Professor Simonds delivered a lecture in the evening to a numerous audience on the Structure, Functions, and Diseases of the Liver in domesticated animals, a detailed notice of which we hope to find room for in a subsequent number.

The exhibition of cattle was, as might have been expected, remarkable, chiefly for the show

of Devon stock, which, in most of the classes, was very highly and justly commended by the Judges. In sheep and pigs, the reputation of the exhibition was well sustained, and the department of the horse is said to have been excellent.

On Friday the grand annual dinner of the Royal Agricultural Society finished the proceedings connected with the anniversary at Exeter. The banquet was most numerously attended, and, moreover, the fame of M. Soyer, the furnisher of the feast, drew many who would otherwise have been indifferent to taste the culinary wonders he had announced his intention to prepare. His bill of fare promised among other things, "rounds of beef *a la* Garrick," "a new pudding *a la* Exeter," "a baron, with a saddle back of beef, *a la* Magna Charta," and a "grand agricultural trophy of agriculture."

The chair was occupied by the Marquis of Downshire; and the speakers were the Marquis, the American Minister, Lord Woodhouse, the Earl of Yarborough, and Mr. Lister. We give an extract of the very excellent speech of Mr. Lawrence, the American Minister:—

"Gentlemen, I come here not as a foreigner—I come here to claim relationship, for the first time of my life, to see the farmers of England with my own eyes—(cheers)—believing that when I see the farmers of England I see the back bone of England. (Great cheering.) I know too well the history of my ancestors, and of my kindred in England, not to know that the farmers of England have been loyal and true to the Crown. (Cheers.) I know history too well, not to know that the battles of England, and the glories of England, are indebted to the patriotism, the prowess, and the sacrifices of the farmers of England. (Cheers.) I come here because my ancestry were all farmers, and English farmers too—and I come here first as the representative of a country whose great material interests are founded in the soil—(hear)—I come here to pledge to you, and to offer to you, in that kind, in that fraternal feeling that should exist between two great nations, the sympathy and the kind feelings of the great body of the farmers of the United States of America. (Loud cheers.) I come here as their representative, to tell you, and to make you feel and realize, that they feel under great obligations to you for the experiments which you have tried here—which we being young, and not rich—(a laugh)—are not able to try—but you having the capital and skill, and what is more, the science which has been applied to the art in Great Britain, are well able to do it all. When I look at the state of agriculture in 1850, and compare it in England with the state of agriculture in 1820, I am perfectly amazed. I have been overwhelmed to day. I have heard so much, and have seen so much, that I have not had time

to digest it. (Cheers.) When I look back to this country only thirty years (and in the annals of time that is but a day), I look to that period when the average production of wheat, I believe, in this realm was not more than 20 or 22 bushels of wheat to the acre, and now high authorities, of all parties and shades of political opinion, agree that the average produce now is from 24 to 28 bushels to the acre. (A voice—30.) Thirty, then, if you please. If it were 40, I should rejoice and thank God for it. (Cheers.) We of the United States have not the slightest jealousy of the agricultural interest in England. (A laugh.) We rejoice at every new agricultural implement you bring out, suitable to your condition—we rejoice when you can, by the aid of agricultural chemistry, produce another sheaf of corn."

The cattle show is undoubtedly, the most interesting feature in these exhibitions; and on the present occasion afforded the highest satisfaction to every visitor. Of course, in the cattle classes, the great objects of attraction were the Devons, and on no previous occasion has there been brought together such a splendid collection of this breed. As a consequence, the competition was very keen, and the merits of the winners of the prizes were proportionally enhanced. The bull belonging to Mr. G. Turner, and to which the first prize was awarded, was as beautiful a specimen of the breed as it is possible to conceive. Mr. Passmore's bull, which carried off the second prize in the same class, was a handsome creature. The exhibition of short-horn bulls were inferior to those of previous years, but some of the short-horn cows and heifers were remarkably fine. Of Herefords the show was small. Among the cattle of any breed, Mr. Chapman's five years and four months old long-horned bull, which gained the first prize of £20, deserved the universal admiration which was betowed upon it.

As compared with former years there was a great falling off in horses, though there were some fine animals.

In sheep the show of South Downs and Cotswolds was considered very good, the Leicester being nothing remarkable. Some idea of the excellence of the South Downs shown may be formed from the fact, that Mr. Webb was offered £100 for the letting of a ram of his in the yard for a year, and refused it. The show of Cotswold sheep attracted as much attention among practical men visiting the exhibition as anything else. The number exhibited amounted to 135 Leicesters; 180 South Downs; 42 long woolled sheep; and 25 extra stock. It will, doubtless, excite the surprise of many of our readers to find that the prizes which for so many years had been carried off by Mr. Jonas Webb, have this year been won by Mr. W. Sainsbury, of West Lavington, Wiltshire. To have gained a triumph over such formidable rivals as Mr. Webb, the Duke of Richmond, Mr. Shelly, and other eminent breeders, of South Downs, is almost enough to make a man forget himself for a moment.

There was a capital show of pigs, and the competition for sows of a small breed was, in the estimation of the judges, almost unprecedented. Every description of animals was brought to the ground in fine condition, and scarcely an individual case of over feeding presented itself even among the pigs. The pigery seems rapidly becoming the pride and glory of British farming. Thither go no longer everything that is inferior, gross, and offensive in dietary, but barley meal, skinn milk, lentils, bean meal, whey and such like delicacies. The sty is no longer a term synonymous with filth, and the grunter, both in bed and board, is comfortably and cleanly entertained during his brief career.

HIGHLAND AND AGRICULTURAL SOCIETY'S SHOW AT GLASGOW.

Another of these monster Agricultural Meetings, after a lapse of two years, has again taken place, under the auspices of this Society at Glasgow. The show-yard was opened for the reception of implements on Tuesday, and on Wednesday morning, at seven o'clock, the trial of the implements selected by the judges for that purpose took place on the farm of Barrowfield. The experiments were concluded about eleven o'clock, and an adjournment to the show-yard took place immediately.

The exhibition of dairy produce was perhaps the largest that has yet occurred since the institution of the Society. There were competitors from the various districts of the shires of Lanark, Renfrewshire, Dumbartonshire, Linlithgow, Argyll, the Lothians, Perth, &c.; the rich green slopes and plains, and the valleys of which showed their prints in wholesome, well-made butter, and tasteful cheese. To be sure, there were samples of butter unworthy of mark; but where there were so many competitors as 246, one could not expect excellence of quality in all. In the opinion of those competent to judge, cheese made from sweet milk during the year was generally excellent, as also the most of those made from skimmed milk during the same year, and any known description of English cheese, such as Wilton, North Wiltshire, Cheshire, and Gloucester. Throughout the day, the sections allotted to cheese and butter were densely thronged by ladies and gentlemen more immediately interested in those departments of the Show:—and as the gay throng threaded the avenues of the large pavillion, the officers of police—stationed within the counters—had some difficulty in preventing the *connoisseurs* of cheese and butter from making too much "freedom" with the ample fare!

The exhibition contained a greater variety of implements and of makers than usual. The names in the catalogue have never been more numerous and diversified than on the present occasion. This is a good system, implying that more makers are beginning to compete for prizes, and that increasing attention is now given to the

production of agricultural implements. The show of machines seemed more *national* than formerly—more Scotch, although we do not deem that necessarily a recommendation.

MEETING OF COMMITTEE.

At three o'clock (Wednesday) the Directors, Committee of Superintendence, and the Judges, assembled within the Town-hall for the purpose of making arrangements for the subsequent meetings of the Society; the Duke of Argyle in the chair, when the Secretary reported to the Meeting:—

This show promised to be the most useful which had ever been held under the auspices of the Highland Agricultural Society of Scotland. The greatest meeting which on any previous occasion had been held was in this city in 1844; and before they compared the one on that occasion with the present, it was right he should explain that they then gave premiums for, and encouraged a great variety of crosses and animals of a condition and of an age which the Society did not think it proper this year to encourage. The gross number of entries at Glasgow in 1844 was 1,550, including implements, and 1,554 in 1850. The object of the present meeting was to enable his Grace and the Committee to make such arrangements as would enable them to prosecute, with correctness and dispatch, the business of to-morrow. For this they were entirely dependent upon the active co-operation of the members of Committee. He might very shortly glance at what had been already done. On Monday morning the yard was opened for the admission of implements. The arrangement differed very materially from that adopted on former occasions. The change, he knew was an unpopular one, with the exhibitors; but to the judges it afforded greater facilities for comparing the different implements, ploughs with ploughs, harrows with harrows, &c., and getting through with their awards. It would also be found to be a much more interesting and agreeable arrangement for the public during the exhibition. They were aware that the trial of implements took place that morning. It had been conducted in a most admirable and most satisfactory manner. The report of the judges of the dairy produce was extremely gratifying. The quantity was astounding—there being no less than 316 entries. In regard to the quality, it had been remarked of one description, that it was a great deal too good. To-morrow morning it was intended to open the show-yard for the admission of stock so early as 5 o'clock, in order that the classification and judging might be facilitated. The judges would meet in the Queen's Hotel at 6 o'clock. There was to be a dinner in the City Hall on Thursday afternoon, for which very complete arrangements had been made; a lecture that night in the Trade's Hall, by Dr. Anderson, on the economy of manures, which he hoped would be well attended, and a breakfast in the Queen's Hotel on Friday morning at 9 connected with the same

subject. After that, the exhibition of horses and other stock took place, concluding with the auction. These were the whole arrangements, in the carrying out of which he trusted that to the various committees the most active co-operation would be extended.

A correspondent of the *Edinburgh Advertiser*, writing from Glasgow last evening, says, this has been the great day of the Highland Society's exhibition, for it combines the treble attraction of implements, dairy, produce, and stock. The judges commenced their arduous task of examining the animals entered for competition, and of awarding the prizes, at seven o'clock; but it was not until ten o'clock, that the show yard was opened to the public. The concourse of visitors was immense. The vast population of Glasgow itself, and the proximity of the richest and most populous agricultural districts of Scotland contributed to this result. A great proportion of the nobility and gentry of Scotland were on the ground. Conspicuous among others were the Duke of Roxburgh, the Duke of Argyll, and Lord Blantyre, who had taken a deep interest in all the proceedings. The weather has been very favourable.

The show of cattle of the various breeds is perhaps unrivalled in the annals of the Highland Society for extent and the general excellence of the specimens exhibited. The short horns were very numerous, and presented some very superior models both in point of symmetry and condition. The Ayrshires were also forward in great numbers, and afforded a fine study for the breeders and purchasers of dairy stock. The Galloways were not so numerous as we would have supposed; and were excelled in number, as they were probably also in quality, by the polled Angus and Aberdeens, which they resembled closely in color and form. There was a very formidable and shaggy array of Highlanders, some of which were highly admired. There were several lots of Fife shires, and some of the heaviest beasts in the yard belonged to this section.

The Horses exhibited were chiefly heavy draught animals. There were no fewer than 32 stallions, all of which had some splendid points. The first premium in this section has fallen to a powerful brown stallion belonging to Mr. Robert Arkley, Philipstoun, Linlithgow. Some equally magnificent draught mares were shown. Several fine horses in harness, employed by carters on the streets of Glasgow, attracted considerable attention.

Of Sheep there was a very extensive display, comprising 115 lots of Leicestershires, 40 lots of Cheviots, 51 lots of black-faced, and 35 lots of South Downs. The Cheviots, with their fleecy coverings, attracted great notice, and were admitted to be very superior. The South Downs which are now rare in Scotland, were eagerly inspected, and much admired. The Duke of Richmond is a successful competitor in this class.

The show of Swine presented great diversities

of breed and appearance, and some of the animals were enormous in size. There was also a large quantity of poultry.

An immense quantity sat down to dinner, in the City Hall, at half-past three o'clock. The Duke of Roxburgh acted as chairman, and the Duke of Argyll as croupier.

PLANS ADOPTED IN THE STATES TO STIMULATE IMPROVEMENT IN AGRICULTURE.

Professor Mapes, editor of the *Working Farmer* published in New York, in the course of an article on Agricultural Improvement, says that:—

The plan adopted by the state of Maryland for disseminating agricultural information, seems to embrace much that is valuable. The legislature of that state have appointed a State Agriculturist, whose duties are to deliver lectures in each county every year, and to assist in forming County Agricultural Societies where none exist; to report to the legislature each year, with a view to its publication and dissemination among the farmers, said report to contain all the current improvements in agriculture, &c., &c. This plan has given rise to great results, and a general spirit of advancement seems already to pervade the farming community.

We have been similarly engaged in New Jersey, having delivered seventy lectures on agriculture during the last twelve months, and have been highly gratified with the results. In one township alone, the amount of increase of crops is stated to be \$25,000 during the last year, as compared with those of former years, and our table is loaded with letters from farmers who have tried our recipe with success. The keepers of agricultural warehouses, plow makers, &c., assure us of increased sales of sub-soil plows, and other improved tools, and we do not fear to assert that the increase of crops in some counties of New Jersey, is not less than ten per cent.

TURNING IN GREEN CROPS.

"During the last ten years the practice of turning in green crops has been extensively adopted, and so far as my observation extends, it has been attended with the most flattering results. Old, worn-out fields, which had become so thoroughly emasculated as scarcely to repay the cost of cultivation, have, by this process, been thoroughly renovated, and at a less cost, probably, than they could have been in any other way. In passing through the country, our attention is often drawn to farms which have been impoverished by an erroneous and emasculating system of cropping, to the

state of barren karro fields. Nothing can be more forbidding than the appearance of barrenness which they exhibit; yet even those are not hopelessly barren. By plowing under the slight vegetation they produce, and following up the undertaking by a liberal application of lime, unless the soil itself is of a calcareous nature, and then sowing buckwheat, peas or clover, to be turned in when in blossom, a degree of energy will be communicated which will secure the continuance of increased and increasing fertility, and under a judicious system of rotary cropping, ensure good crops for a period of many years.

"Tis folly in the extreme to till
Extensive fields and till them ill;
Shrewd common sense sits laughing by,
And sure your hopes, abortive, die,
For more one fertile acre yields,
Than the hugh breath of barren fields."

Some have recommended millet as an excellent article for turning in; but of all cultivated crops, with the exception perhaps of red clover, I consider buckwheat the best. By commencing early, three crops of this grain may be turned in in one season—a dressing which will be found sufficient, under ordinary circumstances, for the most exhausted soil, and which is by no means objectionable on the score of expense or cost."

THE Working Farmer REMARKS ON THE ABOVE:—The above plan of turning in green crops is very well in localities where organic deposits are not at hand; but when river deposits, muck, swamp muck, woods earth and leaves, or any other organic matter can be had and decomposed by the lime and salt mixture, and then applied to the land, it will be found to be a better practice to feed the clover and use the compost, as many tons of clover would be required, to be plowed in to equal in effect one ton of well decomposed organic matter, free from the immense proportion of water which green crops usually contain.

Many argue that by plowing in green crops the inorganic constituents of the sub-soil taken up by the roots of the green crops are added to the surface soil, and this is undoubtedly true, if the plowing be deep enough to turn up the lower parts of the roots, but an ordinary sub-soil plowing will probably enable future crops to find the inorganic constituents of the sub-soil themselves, beside the other advantages arising from sub-soil plowing, such as security against the effects of drought, the gradual increase of depth of soil, and consequent increase of crops, &c.

He who falls in love with himself will find no rivals.

AGRICULTURAL EXPERIMENTS.

It is the duty of the government to place some well educated men in the position to employ their time and talents in investigating the secrets of nature, for the advancement of agriculture and the general good. Agricultural societies, which are instituted for the advancement of science, should especially engage in the preparation of such experiments, and divide the execution of them among the several members.

Science would have made much greater progress if the false shame with which agriculturists conceal every unsuccessful experiment, and the exaggerated manner which they often relate all those in which they have succeeded, had not retarded its progress.

We can experiment either by means of simple observation, by examining the subjects and agents placed in relation with each other, and by considering their reciprocal action, and observing its results, or by means of trials or experiments, by placing some well known plants in certain situations determined with precision, observing their reciprocal action, and preventing as much as we possibly can, any foreign or unknown body from influencing the results of our experiments.

A trial is a question addressed to nature; when such a question is properly put, nature will necessarily reply either yes or no.

It is only within the last century that the art of making experiments has been clearly apprehended. It is on this art that the principal power of man over the material world is founded, and that power will become more extended in proportion as he brings this art nearer perfection, and carries it into practice. There is a particular kind of agricultural experiments which have arrived almost to perfection, can be regulated with a degree of precision equal to that which is attained in the other practical sciences—these are comparative trials in the open air.

It is true that experiments of this kind are not easily made; but, nevertheless they are in the power of every reflecting agriculturist. Whoever has accomplished one experiment, whatever may be the peculiarity of the circumstances under which it was made, and has given a faithful account of it, has well contributed to the advancement of science, and consequently to useful practice, and has entitled himself to the gratitude of his contemporaries and of posterity. It would surpass the power of any single individual to accomplish any considerable number of these experiments, and could not be expected from him.—*Von. Thaer.*

THE JERUSALEM ARTICHOKE.

This plant is misnamed: it does not belong to the artichoke family; it is a sun-flower.

Importance has of late been attached to it, in consequence of the solicitude occasioned by the disease of the potatoe; and its tubers have been recommended, with undue confidence however, as a substitute for those of that esculent. The Jerusalem Artichoke is a native of Brazil, and was introduced in 1617. It is perfectly hardy, much more so than the potato and yam, both of them natives of the same hot climate.

Its culture is very easy. Abercrombie stated long ago, that "half a peck of roots will plant a row of 120 feet, if the sets be two feet distant in the row." Experience has proved that the plant will grow anywhere, and that it adheres so pertinaciously to the site on which it has once been introduced as to be with great difficulty eradicated. Our own practice instructs us that it is always best to trench and enrich any ground selected for it; but to keep the plant apart from garden crops. A rod or two of land at the end of some field or orchard of good, rather free, or sandy loam, thoroughly pulverized to the depth of eighteen inches, and sufficiently manured, will produce a fair yield. Plant, in March, and set, with two or more eyes, or small entire tubers, eighteen inches asunder, in trenches, four or five inches deep, two feet apart; cover the sets, and treat the growing plants exactly according to the best method observed with the potato. In November the crop will be ready for the spade, and some roots ought then to be preserved in dry sand, or charred peat, or turf: but the tubers keep best in the ground. In March the eyes become active; the tubers then indurate assume a reddish hue, and deteriorate for the table.

The following is an extract from the *Penny Cyclopaedia* on this plant:—

The term *Jerusalem* artichoke "is a barbarous corruption of the Italian *Girasole*, this species having been introduced into Europe at the Farnese garden at Rome, from whence it was originally distributed. The roots are composed of a number of oblong tubercles, very large and fleshy, reddish outside and within, resembling a potato; the stems are herbaceous and upright; the leaves are alternate and opposite, petiolate, oval, rough, the flowers are yellow and small. It is a native of Brazil. In France, it is called *Topinambour* and *Poir de terre*. According to Braconnet and Payen, the tubers do not contain *fæcula*, but a vegetable principle called *Inuline* or *Dahlinc*. These tubers, when cooked, form a good substitute for potatoes, and by some are even preferred. Many animals eat them with

avidity, and they are especially recommended for sheep. Payen has succeeded in obtaining from them by fermentation a liquor resembling beer, which might be used as a substitute for that beverage. This species is not easily produced from seed in this country; but it may be propagated by its roots, which will produce stems for many years, if allowed to remain in the same place. It will grow in almost any soil, but the better the soil, the more vigorous and productive will be its growth."

This vegetable, in common with all other culinary roots, should be cooked by gentle simmering till it becomes quite tender throughout. Some boil it before the removal of the rind, others peel it while raw; the jelly is more effectually preserved by the former method: but in either case it should be served up in a dish, with as much simple thick milk as will just cover the tubers; thus dressed it is excellent, and may be eaten with salt or sugar, with or without a little butter, according to taste. The great obstacle to its general introduction is the decided dislike which many persons entertain for it. In nutritive qualities it is unquestionably rich; and if the sauce be thickened with oatmeal instead of wheat flour, these will be proportionably increase: the plant likewise is exceedingly productive; its importance under existing circumstances is, therefore, very considerable. As regards its more important uses in the farm yard, it will be found that animals unaccustomed to it will not readily eat it. They may be given raw or boiled to pigs. It can only be proper for cultivation in odd corners of fields, and otherwise waste places. Under favorable circumstances ten or twelve tons per acre have been grown.—*Morton's Cyclopaedia of Agriculture*.

GERMAN METHOD OF CULTIVATING POTATOES.

The Editor of the *Working Farmer* is trying an experiment to test the advantage of a method of raising large crops of potatoes which is said to be practiced with success in Germany. He says:—

We planted whole tubers and at four feet apart. When the vines were six inches high they were spread out horizontally, like the spokes of a wheel, and entirely covered with three inches of soil; in a few days they sprouted through, and when again six inches high the process of bending down and covering was repeated, and thus continued at each new growth to this time. We have covered 100 hills four times, 100 hills three times, and the balance of the field are cultivated in the ordinary way. Those cultivated in the ordinary way are all in blossom at this

time—many of those covered three times are also in blossom—while those covered four times do not yet show blossom. We tried this experiment, as in duty bound, but without much confidence in the statement made in the French and German journals in relation to its success. We will freely acknowledge that thus far we are surprised at the indications of increased crops, but shall not believe that the potatoes will be of fair size until they become so; the number is undoubtedly much increased by the covering, as many of the leaf stacks have numbers of tubers formed upon them.—ED.

WHEAT CROP IN THE WEST.

The Western wheat crop says an American paper is a harp upon which eastern speculators play a great many curious tunes. Every spring you find them pitching down on to what our worthy friend Robbins of "musical memory," used to call the "wailing D." If their accounts are to be believed, this crop is as sure to be cut off every spring, as the spring comes. It is either winter-killed, or it is too wet, or too dry, or the worm, or the bug, or the fly, or the rust, has always demolished the whole of it, and up goes the flour market, and many a "nimble sixpence," do the speculators make out of it. It has been so this spring. The drought was reported to have killed the whole crop, and quite a rise in flour was the result of the story. Indeed, they went so far as to send a barrel or two back from Boston to Buffalo, and then cry out that all the flour in the East had been ordered back to feed the Far West with. But it seems a kind Providence will not endorse the falsehood, and is pouring out from its blessed horn of plenty a most glorious crop.

The *Michigan Farmer* says: "But the wheat crop, the great staple of Michigan, which keeps our entire population in a constant state of agitation, between hope and fear, like the waves of the sea, "casting up mire and dirt,"—what of it? Well, we were prepared for a doleful sight. Guess our disappointment, then, when we found breaking upon our vision, on the right hand and on the left, some of the finest wheat fields we ever saw; and that for a distance of more than twenty miles' travel. Occasionally a field showed slightly the effects of the drought, and here there one was seriously affected, but most fields exhibited little signs of suffering, and very many, especially the deep plowed, none at all. We certainly never travelled through the same extent of country, in our own or any other state, where so many fields presented so rich a promise of an abundant harvest. We are aware that the appearance of wheat fields, as seen from the road

by the passing traveler, at the stage of growth they had then attained, is very deceptive. But we entered many fields, and examined them sufficiently to justify the above statement.

We were informed by a person who had traveled through Macomb county, that through all the timbered portion of that county, the wheat fields presented an equally, fine appearance. But upon the plains and upon stiff clay land, the crop has suffered more; though we trust not to the extent represented. An individual from the western part of Oakland county, remarked to us, that the late sown wheat had suffered much in that region, but that the early sown stood the drought well, and that is an opening region. The universal testimony is, that the deeper the crop is put in less the injury from drought."

THE POTATO ROT.

We have received intelligence that the Potato Rot has made its appearance in the crops in the Township of Eramosa. It was first observed six or eight days ago, and since that time, has gradually been extending. The haulm appeared quite fresh and healthy, a fortnight ago, but during the last few days, has rapidly decayed. On examination, many tubers were found touched with the disease, a rotten speck, about the size of an English shilling, appearing upon them. We understand the disease was first observed by Joseph Parkinson, Esq., and has been found to exist in the crops on different farms in the Township. It is feared that, should there be much more rain, the crop will not be worth gathering.—*Guelph Adv.*

DRESSING CATTLE.

Much has been said on the propriety of wipping and currying cows and fattening oxen in the byre, and much may be said in recommendation of the practice, were the cattle always confined to the byre; but animals which are at liberty a part of the day do not require artificial dressing, except when in high condition, inasmuch as they can dress their own, and one another's skin, much better than any cattle man. With cattle constantly confined in the byre, it seems indispensable for their good health to brush their skin daily; and I believe no better instrument can be used for the purpose than an old curry-comb, assisted with a wisp of straw. Currying should only be performed on the cattle when not at food; and this should be strictly enjoined, for people, who have charge of animals have a strong propensity to dress and fondle them when at food; from no desire to torment them, but chiefly because they will then be in a quiet mood. Still the process has a tendency to irritate some cattle, and please others so much as to make them desist eating, and on that account should be prevented. Many other animals are never more jealous of being approached

than when eating their food,—as exemplified by the growl of a dog, and the scowl of a horse.—*Stephens Farmer's Guide.*

OATS.

Oats are seldom given to animals as food in the form of meal; but horses are greatly supported, during most part of the year, on the grain of oats, while the meal is used by the labouring people of the farm. The quantity of nutritive matter afforded by an acre of land, from a crop of oats producing 50 bushels per acre, is as follows:—50 bushels, weighing 2100 lbs., give 420 lbs. of husk or woody fibre; 1050 lbs. of starch; from 29 lbs. to 400 lbs. of gluten, &c.; from 75 lbs. to 150 lbs. of oil or fat, and 80 lbs. of saline matter.

The composition of the grain of the oat is as follows:—

	Hopetoun oats.		Potato oats.	
	Ayrshire. Fromberg.	6-480	Northumberland. Norton.	65-60
Starch,	2-58	0-80	2-28	7-38
Sugar,	2-41	2-28	2-17	1-45
Gum,	6-97	7-38	2-28	1-75
Oil,	16-26	16-29	2-17	1-75
Casein (avenine)	1-29	1-29	2-17	1-75
Albumen,	1-46	1-45	2-28	1-75
Gluten,	2-39	2-28	2-28	1-75
Epedermis,	1-84	1-75	1-75	1-75
Alkaline salts, and loss,	100-00	100-00	100-00	100-00

“The quantities of oil given above,” Mr. Norton observes, “are large, but I think correct. The earlier analyses of oats give from three to four-tenths of a per cent of oil. Both Boussingault and Johnston, however, have recently found from 6 to 8 per cent. This oil is of a beautiful pale yellow colour, and its smell may be perceived on heating oatmeal cakes. The fattening qualities of the oat must be very great. The maize or Indian corn is celebrated for fattening animals, and Dumas gives only 9 per cent as its maximum of fatty matters. Boussingault gives 7 per cent as the average; while Liebeg has denied that it contains more than 5 per cent. If we take 7 per cent as the average, the meal of the oat, so far as the oil is concerned, should nearly equal that of the Indian corn.”

The per-centage of ash in the oat I have already given, (172,) and the composition of that ash is as follows:—

	Potato oats.	
	Northumberland. Norton.	31-56
Potash,	5-32	10-41
Soda,	8-69	9-98
Lime,	0-88	5-08
Magnesia, . . . . .	....	1-25
Peroxide of iron, . . . . .	....	....
Peroxide of manganese . . . . .	....	....
Sulphuric acid,	49-19	46-26
Phosphoric acid,	0-35	....
Chloride of sodium (common salt), . . . . .	....	5-32
Chloride of potassium, . . . . .	....	....
Soluble silica,	0-89	3-70
Insoluble silica,	0-98	3-70
	97-86	98-27

“In every part of the plant but the grain,” observes Mr. Norton, “we have found sulphuric acid in the watery solution of the ash; in the grain it seems to give way to phosphoric acid. In the only instance in which sulphuric acid was present, the grain was from a poor crop, grown on an exhausted soil; and it is possible that the sulphuric acid may have been present only because the crop found it impossible to obtain a full supply of phosphoric acid. The large quantity of phosphoric acid is remarkable; in nearly every case it constitutes almost or quite one half of the ash. It is easy, therefore, to see how the addition of bones or guano should benefit the oat crop. Silica is very small in quantity in the grain, compared with that in other parts of the plant.”—*Stephens Farmer's Guide.*

AMOUNT OF FOOD CONSUMED BY CATTLE.

It is supposed that an ox, which attains the weight of 70 stones imperial at the end of the season, consumes in fattening a double-horse load of turnips per week; and, as carts are usually loaded at field-work in winter, the weight of a load may be estimated at about 15 cwt.; so that the ox will consume about 2½ cwt., or 16 stones 2 lbs a day, or 5 stones 5 lbs. at each of three meals, and about 19½ tons during the season of 26 weeks. The calves may consume ½, or 8 stones, and the two-year olds ¾, or 12 stones a day; cows receiving one-third of the oxen, 5 stones 5 lbs. a day. Each scullful contains about 37½ lbs. These comparative quantities are given from no authenticated data, for I believe no comparative trials, with different ages of cattle, have ever been made, but merely from what people imagine to be near the truth; and such an estimate should be made at the beginning of every season, that you may know whether there are turnips enough to serve the stock. It was correctly ascertained by Mr. Stephenson, Whitelaw, East Lothian, in a careful experiment of feeding 18 oxen of 42 stones, that they consumed 10 stones, 2 lb. on an average each of turnips daily; and Mr. Boswell Irvine of Kingcausie, found that oxen of 43 stones consumed only 9 stones of turnips each daily. This discrepancy between the two statements might be explained, perhaps, if we knew every particular of the treatment in the two cases. Taking 9½ stones as the average quantity of turnips consumed every day by oxen of 42 stones, and taking it for granted that oxen consume food nearly in proportion to their weight, the result will be very nearly what is stated above by guess, nearly 16 stones per day, by cattle of 70 stones.—*Stephens Farmer's Guide.*

MILLET.—A word or so upon the use of millet. It is excellent food for poultry, fed in the grain— young chickens are particularly fond of it, while it agrees with them. When ground into meal, or chop, it is as good as rye for all the purposes of mash feeding; horses and all kind of cattle are fond of, and thrive upon it; when made into slops for hogs and milch cows, it is found not only grateful to those animals, but the first will thrive and grow fat upon it, while the last will be assisted in the secretion and quantity of their milk,

Horticulture.

FRUIT AND ITS PROSPECTS.

Contrary to all appearances and anticipations, the fruit crop is a failure in the whole Northern and Eastern States. The period of blossoming promised abundance, but an unpleasant and cold east wind followed—the stamens failed to develop the pollen—impregnation did not take place—and nearly the whole proved an abortion. This cause of failure only applies to the apple. The peach crop is shortened from a cause, called the *Curl*, which showed itself three or four years ago, and has been gaining until this year it has become an alarming disease to the lovers and growers of this delicious fruit.

At the period of blossoming, when the leave has nearly attained its full size, the fleshy covering commences enlarging without a corresponding growth of the frame work or centre stems and ribs; the result is a folding and corrugation of the web or covering until it is twice as large as it should be, and very much thickened. Circulation and elimination ceases, the whole leaf mildews and falls off, and if there is no dormant buds on the limb or at the terminal point, it gums and perishes, and in most cases the peach in its incipient state is lost before the new leaf is able to carry on the vital process.

Many persons are disposed to attribute this disease to insect depredation, as they do every disturbance of the functions of all fruit and vegetable productions; yet in all cases the insects will be found to be the natural enemies of the plant, or the effect and not the cause.

We understand the *Curl* has more or less affected the peach over the whole continent, but less at the South and West.—*Rural New Yorker*.

LOW HEADS FOR FRUIT TREES.

Some writer, no matter who, gives the following recommendations for the shape of fruit trees. They are commended to all who raise such trees.

It is said to be much better to grow fruit trees with their heads and branches near the ground, than to have them branching over head, for various reasons.

1st. The sun, which is, perhaps, in our hot and dry summers, the cause of more disease and destruction in fruit trees than all other diseases together, is kept from almost literally scalding the sap, as it does in long, naked trunks and limbs. The limbs and leaves of a tree should always effectually shade the trunk and keep it cool. The leaves only should have plenty of sun and light: they can bear and profit by it. If trees were suffered to branch out low, say one or two feet from the ground, we should hear much less of "fire blight," "frozen sap blight," black spots, and the like.

2nd. The ground is looser, moister, and cooler under a low branching tree than under a high one. Grass and weeds do not grow a hundredth part so rank and readily, and mulching becomes unnecessary.

3rd. The wind has not half the power to rack, and twist, and break the tree and shake off the fruit; a matter of no inconsiderable consequence.

4th. The trees will be much longer lived, and more prolific, beautiful, and profitable.

5th. The trees are more easily rid of destructive insects, the fruit is much less damaged by falling, and the facilities for gathering it are much greater; there is less danger of climbing, and less of breaking limbs.

6th. The trees require less pruning, scraping, and washing, and the roots are protected from the plough, which is too often made to tear and mutilate them.

These seem to be indisputable facts, sufficient to silence all objections. An apple or cherry tree is nearly twice as valuable for shooting out low, near the ground, especially on the south-west sides.

SAP OF PLANTS.

Knight teaches that the sap of plants *ascends* through the whitewood, and *descends* down the bark, depositing the matter of the new wood in its descent, but without its becoming changed into it. That the matter absorbed from the soil and air is converted into the true sap or blood of the plant *wholly in the leaves*, from which it is discharged into the bark, and that such portions of it as are not expended in the generation of new wood and bark, join, during the Spring and Autumn, the ascending current in the wood, into which it passes by the medullary process. As the Autumn approaches, however, and the ascending sap is no longer expended in generating new leaves and blossoms, or young shoots, that fluid concentrates in a concrete state in the sap wood of the tree, as in the tuber of the potato, and the bulb of the tulip, and joints of the grasses, whence it is washed out in the Spring, to form a new layer of bark or wood, to form leaves, and feed the blossoms and fruit.

STRAWBERRIES. — Cutting of the runners of Strawberry plants during summer has been pretty generally recommended by gardening authors. This, I believe to be an error in practice, and should therefore be discontinued and that they be not removed until they have completely struck root, or even afterwards. If cut off too soon, the plants, from causes only to be understood by a thorough knowledge of vegetable physiology, will continue to send out their stolens or runners, to the great detriment of the parent plant; whereas, if left on until that they have become well rooted and established, or if left on (if not wanted for new plantations) till autumn, the old plants instead of being weakened as heretofore often supposed, will be materially strengthened and improved.—*Fragaria*.

TREES and vines which are kept the cleanest, bear the best; like the human body, the pores of their skin become clogged with dirt, and retain gases which should escape. Trees, the bark of which has been scraped and scrubbed, become more thriving and more vigorous.

General Science and Miscellany.

PRESERVING FRUITS.

The *Horticulturist* contains the following mode of preserving fruits, which may be of use to housekeepers:—

“Send to your tinsmith and get a sufficient number of tin canisters, very carefully and tightly made. They should be of uniform size; and the shape preferred here is seven inches high by five in diameter—uniform cylinders.

“Select the fairest fruit—peaches, strawberries, or what you please. It should be *just* ripe, but not past the mature stage. Fill the canisters, place the tin lids on their tops, and solder them very carefully. Only a small hole, the size of a pin, should be left for the escape of air.

“The next point is to drive the air out of the canisters of fruit, to prevent its decay. In order to do this, take a broad boiler-pan, with a flat bottom, place the canisters in it and fill it with boiling water within about three-fourths of an inch of the tops of the canisters. The boiler being over a gentle fire, the water should now be made to boil. This will drive the air in each canister through the small hole left in the top, as soon as the temperature approaches 208; and in order to know precisely when it is all expelled, you must drop a few drops of water upon this hole. When the bubbles of air cease rising through these drops of water, the air is all expelled, and then you may pass a dry cloth over the hole, and let a drop of solder fall upon it. This seals the canister up hermetically, so that the fruit will remain unchanged for a couple of years or longer. The immersion of the cans in the boiling water does not impart the slightest taste of their having been cooked to the fruit.

“The canisters of fruit should be left in a cool place. When wanted for use, unsolder the tops with a hot iron, and the fresh fruit is ready,—having been perfectly preserved without the aid of sugar or brandy. Yours, W.”

NEW MODE OF MAKING COFFEE.

Choose the coffee of a very nice brown color, but not black [which would denote that it was burnt, and impart a bitter flavor]; grind it at home, if possible, as you may then depend upon the quality; if ground in any quantity, keep it in a jar hermetically sealed. To make a pint, put two ounces into a stewpan, or small iron or tin saucepan, which set dry upon a moderate fire, stirring the coffee round with a wooden spoon continually, until it is quite hot through, but not in the least burnt. Should the fire be very fierce, warm it by degrees taking it off every now and then, until hot, (which would not be more than two minutes,) when pour over it a pint of boiling water, cover close, and let it stand by the side of the fire, [but not boil,] for five minutes, when strain it through a cloth, or a piece of thick gauze; rinse out the stewpan, pour the coffee [which will be quite clear] back into it, place it upon the fire, and, when nearly boiling serve with hot milk, if for break-

fast, but with a drop of cold milk or cream, if for dinner.

The foregoing proportions would make coffee good enough for any person; but more or less coffee could be used if required. The cloth through which it is passed should be immediately washed and put by for the next occasion. A hundred cups of coffee could be made as here directed, in half an hour, by procuring a pan sufficiently large, and using the proper proportions of coffee and water, passing it afterwards through a large cloth or jelly-bag.—*Soyer's Modern Housewife.*

THE OHIO KETCHUP.

The Buckeyes are in the habit of making a certain kind of ketchup which I have found no where else, and have, therefore, taken the liberty to call it “The Ohio Ketchup.” It is an article that should be found in every household. You must pardon me for not attempting to give you an idea of its deliciousness, because my pen cannot do justice to the subject. The season will soon be here when this “happy combination of vegetables” can very easily be made. I will therefore transcribe the receipt for the benefit of your readers: Take about three dozen full grown cucumbers, and eight white onions. Peel the cucumbers and onions, then chop them as finely as possible, then sprinkle upon them three-quarters of a pint of fine table salt; then put the whole into a sieve and let it drain for eight hours; then take a tea cup full of mustard seed, half a cup of ground black pepper, and mix these well with the cucumbers and onions; then put the whole into a stone jar and fill it up with the strongest vinegar; close it up tightly. In three days it will be fit for use, and will keep for years.

Let all your readers give the Ohio Ketchup a fair trial, and you and I will receive sixty thousand thanks for letting them into the secret of making it.—*Dollar Newspaper.*

TO USE COLD PUDDING.—If you have a large piece of boiled pudding left after dinner, such as plum pudding, Indian pudding, or batter pudding, and you wish to cook it next day, tie it up in a cloth, and put it into a pot of boiling water, and keep it boiling hard for half an hour or more. It will be found as good as on the first day, and perhaps rather better: and it will be far more palatable, as well as more wholesome than if sliced, fried, or boiled. Eat it with the same sauce as on the preceding day.

CUSTARD WITHOUT EGGS.—One quart of new milk, four tablespoonfuls of flour, two of sugar. Season with nutmeg or cinnamon, and add salt to your liking. The milk should be placed over a quick fire, and when at a boiling point, the flour should be added, being previously stirred up in cold milk. As soon as thoroughly scalded, add the sugar, spices and salt. This is an excellent dish, and deservedly prized by every one who has tried it.

KEEPING FRESH BEEF.—Combe says the *ribs* will keep longest, or five or six days in summer, the middle of the *loin* next, the *rump* next, the *round* next, and the *brisket* the worst, which will not keep longer than three days in summer,

BLUE WRITING INK.—Four ounces sulphate of iron, two and a half drachms of sulphuric acid, one ounce, of q. s. nitric acid, six ounces ferrocyanide of pot assium; water q. s. Dissolve the sulphate of iron in one pint of water, then add the sulphuric acid, and heat the solution to boiling; then pour in the nitric acid, in small quantities at a time, continuing the boiling until the iron is peroxidized. Dissolve the ferrocyanide of potassium in two pints of water, and add the former solution, when cold, to this. Collect the precipitate that will be formed on a filter, and carefully wash it with distilled water, until the blue precipitate begins to dissolve in the water. It will now be found to be soluble in pure water, although insoluble if any other salt be present. Rub what remains, in a mortar with distilled water, until a clear solution is obtained, of the required intensity of color. A little oxalic acid is sometimes added, but this is not necessary, if the above instructions be carefully followed, as the precipitate will be perfectly and permanently soluble in pure water.—*Scientific American.*

CURE FOR WARTS.—The following recipe, which I have often used with safety and efficacy, for taking warts (or, as they are called here, ing-leberries) off cows, might be of great use to many farmers:—

With a sharp knife, scrape a very small portion of the skin of the wart, so as not to make it bleed profusely, but that the blood or water may appear oozing through the skin; then rub a little arsenic on that part; in a short time it will blacken, and in eight or ten days it will drop off.—*Hugh Ochilfree, Ratsfriland.*

SARSAPARILLA SYRUP.—Purchase of a druggist of known honesty, 15 ounces of Para Sarsaparilla; split all the stocks in two lengthwise, and cut in short pieces. Soak it in a gallon of pure water for twenty-four hours, then boil it down to two quarts; strain and add while boiling, 15 ounces of white sugar; thicken all by a little additional boiling, precisely as you make the syrup of preserves. Here you have two quarts of pure syrup for eighty cents. The dose is from a teaspoonful to a wine glassful, according to age, three times a day; but it would do no harm if taken by the tumblerful; it is not hurtful in any dose. If you make it, you are certain that you get the genuine article—which is very doubtful if you buy it.

PAINT AND SAND.—Wheeler's *durable paint* for outside work is made as follows:—Take 50 pounds of best white lead, 10 quarts linseed oil; $\frac{1}{2}$ lb. dryers; 50 lbs. finely sifted clean white sand; 2 lbs. raw umber. Thoroughly mix and dilute the whole with the oil, adding a very little (say half) a pint of turpentine. A *wire* brush is used, which does not cut through with the sand.—*Albany Cult.*

SUBSTITUTE PAINT VARNISH.—Recipe for a composition to economize paint: To one pound of gum shellac add four ounces of borax and two quarts of water. Boil till dissolved. These proportions may be varied according to the quality of the materials used. After the paint is prepared for use, add near-

ly an equal quantity of the above, and stir until it unites. The paint will then be thicker than before, and must be reduced with oil or spirits of turpentine. The paint will now cover twice the surface it would at first.

HOW TO PRESERVE HEALTH.—Medicine will never remedy bad habits. It is utterly futile to think of living in gluttony, intemperance, and every excess, and keeping the body in health by medicine. Indulgence of the appetite, indiscriminate dosing and drugging, have ruined the health and destroyed the lives of more persons than famine or pestilence. If you will take advice, you will become regular in your habits, eat and drink only wholesome things, sleep on a mattress, and retire and rise very regularly. Make a free use of water to purify the skin, and when sick take counsel of the best physician you know, and follow nature.

GOLDEN RULES OF LIFE.—All the air and the exercise in the universe, and the most generous and liberal table, but poorly suffice to maintain human stamina if we neglect other co-operatives—namely the obedience to the laws of abstinence, and those of ordinary gratification. We rise with a headache, and we set about puzzling ourselves to know the cause. We then recollect that we had a hard day's sag, or that we feasted over bounteously, or that we stayed up very late; at all events we incline to find out the fault, and then we call ourselves fools for falling into it. Now, this is an occurrence happening almost every day; and these are the points that run away with the best portion of our life, before we find out what is for good or evil. Let any single individual review his past life: how instantaneously the blush will cover his cheek, when he thinks of the egregious errors he has unknowingly committed—say unknowingly, because it never occurred to him that they were errors until the effects followed that betrayed the cause. All our sickness and ailments, and a brief life, mainly depend upon ourselves. There are thousands who practice errors day after day, and whose pervading thought is, that every thing which is agreeable and pleasing cannot be hurtful. The slothful man loves his bed; the toper his drink, because it throws him into an exhilarative and exquisite mood; the gourmand makes his stomach his god; and the sensualist thinks his delights imperishable. So we go on, and at last we stumble and break down. We then begin to reflect, and the truth stares us in the face how much we are to blame.

ADVICE AS TO COLDS.—Young ladies should take care not to sit near the piano; for it is a well-known fact that that instrument has caused more dreadful colds than all the thin shoes and draughts in the world. The most beautiful creatures, who were perfectly well and laughing the minute before, have no sooner approached a grand Broadwood, than they have been suddenly seized with a sore throat, and have lost in a minute the use of their voice. The complainant is less taking as the young lady grows older, and rarely has any effect where there are several sisters.

PROF. ESPY'S THEORY OF STORMS.

As some interest has been awakened here of late on meteorology, we propose to present our readers a brief view of the "theory of storms," called the "Espy theory"—so designated to distinguish it from another and kindred theory, named the "Redfield theory."

Mr. Espy, in his theory, professes to explain all the seven phenomena of rain, hail, snow, water-spouts, winds and barometric fluctuations. The following is a brief synopsis of his theory.

1. Atmospheric air is subject to expansion, either by heat or by a diminution of pressure.

2. Aqueous vapor is specifically lighter than atmospheric air,—its weight, under given circumstances, being only about five-eighths of that of air.

3. When a portion of air becomes lighter than the surrounding air, from expansion by heat, from being more lightly charged with vapor, or from any other cause, it ascends.

4. Air, in ascending from a lower to a higher region, is subject to diminished pressure, and consequently to expansion.

5. The atmosphere is capable of containing, and does always contain a certain quantity of water in a state of transparent vapor.

6. This capacity of the atmosphere for containing water increases much more rapidly than the temperature.

7. The quantity of water actually in solution, varies greatly, at different times and places, independently of the temperature; the air, at a given temperature, sometimes being filled nearly or quite to the extent of its capacity, while at others, it falls far short of it.

8. If from any cause, the temperature of a portion of air, containing a given quantity of vapor, be reduced to a certain point, that is, at all below the dew-point, it must deposit a portion or the water.

9. Expansion, arising from diminished pressure, is attended by diminished temperature.—The actual diminution of temperature, on this account, in ascending from the surface of the earth, is about a degree and a fourth, for every hundred yards; and consequently air, highly charged with vapor, that is, with a high dew-point, would not have to ascend very high before condensation must commence.

10. The condensation of vapor is attended with the disengagement of a very large quantity—more than a thousand degrees—of latent caloric. In other words, sufficient caloric is set at liberty, by the condensation of a given quantity of vapor, to raise the temperature of a hundred times that quantity of matter (of the same specific caloric) ten degrees."

Heat is the life giving element in this theory, as of every other storm theory.

Cork, if sunk two hundred feet in the ocean, will not rise, on account of the pressure of the water.

A WONDER OF ART.—One of the most extraordinary wonders of modern times is "The Britannia Bridge," over the Menai Straits, the work of that celebrated engineer, Mr. Robert Stephenson. It consists of two immense wrought iron arcades, tunnels or tubes, each more than a quarter of a mile in length, placed side by side, through which the up and down trains of railroad cars respectively pass. The ends of these tubes rest on abutments, the intermediate portion being supported across the straights by three massive and lofty stone towers. The centre tower stands on a rock, which is covered by the tide at highwater. The side towers stand on the opposite shores, each at a distance of 450 feet from the centre tower. The abutments are situated inland, at a distance of 220 feet from the side towers. The bridge is divided into four spans, viz., the two small spans at each end, which are over the land, and are each 230 feet wide, and the two principal spans, which are over the water, are each 460 feet wide. The length of one of the large tubes is 472 feet. The height of the tubes is not the same at all parts of their length. It is the greatest in the centre, where it is 30 feet outside, and diminishes gradually towards the ends, at which it is only 22 feet 9 inches. The top forms a regular arch, and the bottom is quite flat and horizontal. The internal width from side to side is fourteen feet, though the clear space for the passage of the trains is but 13 feet 5 inches. The weight of the wrought iron in one of the tubes—and this will afford the reader an adequate idea of the structure—is about 1,600 tons. The weight of the whole eight tubes amounts to nearly 10,000 tons. Each tube was built on the shore, and had to be transported a considerable distance on large flat-bottomed, close barges, called pontoons. The middle tower is 62 feet 5 inches at the base, and its total height from the bottom of the foundations is nearly 230 feet. It contains lime-stone and sandstone to the extent and weight of 20,000 tons, and there are 387 tons of cast iron built into it in the shape of beams and girders. There are two consecutive tubes forming the bridge, each upwards of a quarter of a mile long, and each weighing 500 tons. The entire length of the bridge at rail level is 1841 feet. It is stated that a very remarkable phenomenon is connected with the mass of iron in the bridge, caused by the change of temperature in the weather, which affects it like a thermometer. Alternate sun-shine and showers of rain cause the tubes to expand and contract.

THE BUILDING FOR THE EXHIBITION OF 1851.—The long deliberations as to the building to be erected for the exhibition of 1851, have been terminated by a decision in favor of Mr. Paxton's design and estimate. Mr. Paxton suggests a building chiefly of glass—in fact, a huge but elegant glass house. The great feature in its erection is, that no stone, brick, or mortar, will be necessary.—All the roofing and upright sashes will be made by machinery, fitted together, and glazed with rapidity, most of them being finished

previous to being taken to the place, so that little else will be required on the spot than to fit the finished materials together. The whole of the structure will be supported on cast iron columns, and the extensive roof will be sustained without the necessity for interior walls for this purpose. If removed after the exhibition, the materials may be sold far more advantageously than a structure filled in with bricks and mortar, and some of the materials would bring in full half of the original outlay. Complete ventilation has been provided by filling in every third upright compartment with luffer boarding, which would be made to open and shut by machinery; the whole of the basement will be filled in after the same manner. The current of air may be modified by the use of course open canvas, which by being kept wet in hot weather, will render the interior of the building much cooler than the external atmosphere. In order to subdue the intense light in a building covered with glass, it is proposed, to cover all the south side of the upright parts, together with the whole of the roofs outside, with calico or canvass, tacked on the ridge rafters of the latter. This will allow a current of air to pass in the valleys under the calico, which will, if required with the ventilators, keep the air of the house cooler than the external atmosphere. To give the roof a light and graceful appearance, it is to be on the ridge and furrow principle, and glazed with sheet glass. The ridge and the valley rafters will be continued in uninterupted lines the whole length of the structure, and be supported by cast iron beams. These beams will have a hollow gutter formed in them to receive the rain water from the wooden valley rafters which will be thence conveyed through the hollow columns to the drains. These drains will be formed of ample dimensions under the whole of the pathways throughout. The floors of the pathways to be laid with trellis-boards three-eighths of an inch apart on sleeper joists. This kind of flooring is both economical and can always be kept clean, dry, and pleasant to walk upon. The gallery floors are to be close boarded. No timber trees need be cut down, as the glass may fit up to the boles of the trees, leaving the lower branches under the glass during the exhibition; but Mr. Paxton does not recommend this course as, for the sum of £250 he would engage to remove and replace every living tree on the ground, except the large old elms opposite to the Prince's gate. Only a few years ago the erection of such a building as the one contemplated would have involved a fearful amount of expense; but the rapid advance made in this country during the last forty years, both in the scientific construction of such buildings and the cheap manufacture of glass, iron, &c., together with the amazing facilities in the preparation of sash-bars and other wood-work render an erection of this description, in point of expense, quite on a level with those constructed of more substantial materials.

NEW RIFLE.—Mr. P. W. Porter, of Memphis, has made a self-loading rifle. It has a revolving

wheel perforated by forty chambers. The discharge of one chamber loads the adjoining one. This is an improvement on Colt's revolver, and will be of great benefit to the Californian adventurers.

NEW LIFE-PRESERVING MATTRESSES.

A series of experiments have been made in the river Clyde, Scotland, with mattresses which have been recently patented in that country by a Mr. R. W. Laurie, of Glasgow, as "Life Preservers." They are made of water-proof materials, not on the principle of air-tight tubes or cushions, which are liable to be destroyed by the smallest puncture, but on the principle of air-cushions and buoyant materials combined, for although a rent or puncture should be made, the mattress will still float. They are made of a series of tubes of vulcanized India rubber, stuffed with granulated cork, to prevent them from collapsing, and from external injury. The way in which the mattresses were made was to have three or four water-proof tubes filled with air and partially stuffed with small pieces of cork. These air pipes are connected together, and stuffed around the sides and over the top and bottom with layers of cotton wool, (which is almost water-proof), and over the whole is a covering of vulcanized India rubber, gutta percha, or any water-proof material. On the sides are attached strong cords to hold on. The surface is quite smooth, and it is as easy to recline on one of them as on a hair mattress. The invention is applicable to footstools, pillows, and other kinds of furniture belonging to steamboats or sailing vessels. We commend this invention to our steamboat and ship companies. Such kinds of life-preserving apparatus should be used on all sailing vessels. Captain Seely of this city has an apparatus of his own invention similar to this, which we have seen tested as a life-preserving raft, and boat, with perfect success.—*Scientific Am.*

COLOR OF DWELLINGS.

We can give no minute directions for painting— not having learned the art of a painter; but there are a few observations we have made which will be worth noticing. And first, the color of the building should be regulated by its situation. A tall house standing plump with the street will not bear the same hue with a low neat cottage, embowered in trees and vines. The first will bear a dark color. Its prominence thrusts it out on the sight, and if it be of a bright glaring hue, it will blind the eyes of every beholder. On the other hand, the half hidden cottage, painted of a dark brown, reminds one only of a prison or barn; whereas it should wear an aspect of light and cheerfulness. If deeply embowered, an absolute white is best. If less, the white may be softened or neutralized by a mixture with it of some other color. A friend of ours had a white house, situated as above described; but, for the sake of prevailing fashion, had it painted a dismal brown, to his utter chagrin then and ever since.

The chief difficulty in getting a neutral color is

the ignorance of many painters in compounding colours. They try for drab, and get a brown; they attempt a straw color and get a downright yellow.

A series of pretty colors for houses can be made by putting into white lead a small quantity of umber, ground in oil. By varying the quantity, any number of shades of drab may be obtained. In compounding this, care is required not to put in too much of the umber. The way is to use a little at a time, till the required shade is formed. With raw umber, a cold drab is obtained; with burnt umber, a warm one may be had. A straw color is formed by adding a little chrome yellow to white lead, and the same rule is to be observed.—*Prairie Farmer*.

SALTING ASPARAGUS BEDS.—My beds are situated on limestone land, but the soil is deep and rich. The beds have never been raised more than eighteen inches or two feet from the level (not being considered necessary.) They are at least twenty or twenty-one years old, and every year they have been gradually declining, but whether from bad management or age I cannot determine. About the end of January or beginning of February, the weather being tolerably mild for the season, I raked the soil off the beds with a small hand-rake until I had sufficiently bared them without hurting the plants. I then laid one and a half inch or two inches of rich stable manure over them, and afterwards completed the beds with soil from the trenches which had been thrown back. Next day I watered with salt and water (refuse salt, 2*l.* per stone) the weather being mild and dry, and in wet weather I sprinkled them over with dry refuse salt, which the rain most effectually washed in. The effect was more expeditious than I had anticipated. About the end of March I cut a tolerably good dish, very much larger and more delicate than I have had during the last two years, and on Tuesday, June 4, I had cut my eighth dish. They now seem disposed to run to seed, so I have ceased cutting. The beds I have are only seventeen feet long by four feet broad, but they occupy so favourable a situation that they should be more productive than they are (with proper management).—*John T. Y., Parkhead*.

NOTES ON HYBRIDISING, AND MISCELLANEOUS AGRICULTURAL MEMORANDA.—By hybridising we anticipate a change in the whole face of cultivated plants; probably a few years may thus produce new races of trees, esculents, corn, and forage plan is of as much (if not more) importance as any already known. The effect is produced by applying the pollen of one flower to the stigma of another. The Dean of Manchester, the most eminent man in his way, always endeavours to force the female parent, so as to be forwarder than others of the same kind. Potato blossoms should be taken off. Turnip seed should be drilled with about 12 times its bulk of powdered charcoal. Chemistry will probably do more for agriculture than it has done for other arts and manufactures. Sulphate of lime is frequently

the cause of hardness in water. Spade culture should be adopted. One horse consumes what would supply a family of seven.—Y. F. A.—*The Irish Farmers' Gazette*.

SCIENTIFIC MEMORANDA.

It has long been alledged that the aurora borealis has the effect of producing a certain direction of wind, and colored aurora borealis is always indicative of a change of existing weather.

The mean annual fall of rain on the surface of the globe has been taken at 34 inches, which, taking the area of its surface, 196,815,658 square miles, would amount (at 1,000 ozs to the cubic foot) to 431,033,808,959,644 tons per annum.

It is a fact undeniably proved that if sheep are allowed free access to salt, they will never be subject to the disease called the "rot."

Wooden posts or stakes driven under salt vats, owing to the preserving quality of the salt, are practically indestructible. It would be very easy to adapt this hint to the preservation of fence, garden posts, &c., as they do in Syracuse.

The elastic force of steam is the moving agent of the machinery attached to an engine, and therefore to keep the velocity constant, the supply of steam must be regulated to the resistance to be overcome.

Twenty-seven inches of snow give three inches of water when melted, and the water thus obtained is found to contain ammonia which is the cause of its great softness.

A large species of the star-fish possesses the power of breaking itself into fragments under the influence of terror, rage, or despair.

When we look at the moon through a telescope which magnifies 200 times, we behold the objects on its lunar surface in the same manner as if we were standing at a point 238,800 miles from the earth in the direction of the moon, or only twelve hundred miles from that orb, reckoning its distance to be 240,000 miles.

A cement composed of 4 parts of pure chalk and 5½ parts of fresh blue alluvial clay, will be found cheaper than any other as an hydraulic mortar.

A vessel moving through the water communicates a motion to the same, and this quantity of motion is equal to that which is lost by the moving vessel.

THE WORLD.—Many an unwise parent labours hard and lives sparingly all his life for the purpose of leaving enough to give his children a start in the world, as it is called. Setting a young man afloat by money left him by his relatives, is like tying bladders under the arms of one who cannot swim: ten chances to one he will lose his bladders, and go to the bottom. Teach him to swim, and he will never need the bladders. Give your child a sound education, and you have done enough for him. See to it that his morals are pure, his mind cultivated, and his whole nature made subservient to the laws which govern man, and you have given what will be of more value than the wealth of the Indies.

A CHAPTER ON BREAD-MAKING.

Mr. Moor,—*Dear Sir*: As your valuable paper has contained some articles on making bread, I thought I would send you a recipe, which, if followed, will make as good bread as I want. But first let me tell your good readers how to make the *right* kind of yeast. This is the way my wife has followed for a good many years, and at present makes quite a "commercial operation" of it by supplying the destitute.

First she takes a *two* quart pan full of hops to about *three* quarts of water, and boils them, until the strength of the hops is fairly extracted; then strains out the water and adds sufficient flour to make a thick batter; then sets it by to cool. When nearly cold, add a sufficient quantity of yeast, (about 3 yeast cakes, if on hand, or soft yeast will do)—then set it by for the night; in the morning this will be light. You then take Indian meal and make a large dish-kettle full of what we call "hasty pudding," and when this is *nearly* cool, put the yeast as prepared into it, and stir it well. Set it by until this fomented well, then stir in meal until it becomes thick enough to roll out like "short-cake dough," about $\frac{3}{4}$ of an inch thick; then with a biscuit cutter you cut them out and spread on a smooth board, and dry them *in the shade*, turning them over occasionally. When fairly dry, put into a bag, and hang them up for use. I have known this kind of yeast perfectly good when six months old, and my wife has the credit of "beating the beater" in making good bread.

And now for the bread making. For a batch of three loaves, take about ten common sized potatoes; peel (or pare) them, cut them into slices, and boil them well; pour off the water, and then mash them fine with a fork. Then with cold water and flour you make a batter; this will cool it sufficient to add the yeast, (which should be one of the above cakes, broke up fine, and dissolved in a little cold water.) When it is well stirred together, set it by over night; in the morning, take your flour and sift it, (this gets out all lumps) and then pour in your batter, (*if light enough*), and then knead up your dough, being careful to work the flour in slow, (it will be the better for that.) Make up your loaves, and place them in pans for baking; in a short time they will be light enough for the oven. The weather has a little to do with it; if cold, then keep it in a warm place.

Bread got up after the above rule, in my house, has called out the praises of a great many as the best bread they ever saw, and many have been instructed accordingly.

Wife says, I ought to add—put in enough salt into the potatoes to make them palatable, and this will salt the bread sufficiently.

Yours,

E. H.

—*Rural New Yorker*.

THE LADY'S HORSE,

A late number of Mr. Skinner's "Plough, Loom, and Anvil," contains an instructive article on that noble animal, the Horse, from which we make the

following extract, for the benefit of our lady readers:—

The lady's horse is, after all, the most difficult to obtain, because he ought to approach very near to perfection. His paces, mouth, and temper should each be proportioned to the power and capability of his rider; and he should be proof against alarm, from either noises or sights, which otherwise might cause him to run away. This description of horse should likewise be well-bred, as in that case his action will be easier and his appearance and carriage more in character with the generally elegant appearance of his rider. His pace should be the canter; the trot causes an ungraceful movement in the person of a woman, to enable her to rise bitted horse is more safe, because his haunches are more under him in that pace than they can be in the trot. A good, bold walk, however, with the head in proper place, is essential to a horse that has to carry a woman; and his action should be very true, that is, he should not "dish," or throw his legs outward, as the term is, in any of his paces, or he will cover the lower garments of his rider with mud, when the roads are wet and dirty. To provide against the latter inconvenience, however, all horses intended for this purpose should not be much under fifteen hands and a half in height, which size corresponds with the lengthened drapery of a lady's riding costume. As a preventive against accidents, ladies' horses, however well broken and bitted, should not be too highly fed; and, if at all above themselves, should be ridden by a careful servant, with good use of his hands, before ladies mount them. It is however, an acknowledged fact, that horses go more quietly under women than they do under men, which is accounted for by the lightness of their hand, and the backward position of the body in the saddle. We have, in fact, known several instances of horses being very hard pullers with men, standing up in their stirrups, and, consequently, inclining their bodies forward, but going perfectly temperate and at their ease under women.

AN ARAB GAME.—The Arabs are far more amiable, far more jovial and open-hearted. They have their coffee-houses every night, and their religious festivities periodically; they play all sorts of complicated games, resembling draughts and chess, and find means ingeniously to vary their sports. If they compromise their dignity, they succeed in whiling away their leisure time far more successfully than the pride-stuffed Levantine. One of their amusements—called the game of plaff—is worth mentioning, especially as it is not only indulged in by the vulgar, but formed the chief delight of the venerable Moharrem Bey himself. Two men, often with respectable grey beards, sit on a carpet at a little distance one from the other. All East-erns are usually dry smokers; but on this occasion they manage to foment a plentiful supply of saliva, and the game simply consists in a series of attempts on the part of the two opponents to spit on the tips of each other's noses. At first, this cleanly interchange of saliva goes on slowly and deliberately.—Socrates

never measured the leap of a flea with more seriousness—but presently one receives a dab in the eye, another in the mouth. They begin to grow hot and angry. "I hit your nose," cries one. "No, it was my cheek!" replied the other.—They draw a little nearer, in order to ascertain the truth by feeling; spit, spit, they still go, like two vicious old cats; their palates grow dry; their throats become parched; but the contest continues, and they exhaust themselves in making spitoons of each others faces, and beards. Hamlet and Laertes were not more eager and desperate. "A hit, a very palpable hit!" they exclaim, as they hawk up their last supply of ammunition. Each denies the truth; they mutually proceed to a verification, and the game of plaff often ends in a regular match of nose-pulling.—*Two Years' Residence in a Levantine Family.*

THE ELEPHANT AND THE CAMEL.

Elephants have the bitterest enmity to camels. When the camel scents the elephant it stops still, trembles in all its limbs, and utters an uninterrupted cry of terror and affright. No persuasion, no blows can induce it to rise: it moves its head backwards and forwards, and its whole frame is shaken with mortal anguish. The elephant on the contrary as soon as he perceives the camel elevates his trunk, stamps with his feet, and with his trunk thrown backwards, snoring with a noise like the sound of a trumpet, he rushes towards the camel, which with its neck outstretched and utterly defenseless awaits, with the most patient resignation, the approach of its enemy. The elephant, with its enormous shapeless limbs, tramples on the unfortunate animal in such a manner that in a few minutes it is scattered around in small fragments.

A STRIKING THOUGHT.

The death of an old man's wife, says Lamar-tine, is like cutting down an ancient oak that has long shaded the family mansion. Henceforth the glare of the world, with its cares and vicissitudes, falls upon the old widower's heart, and there is nothing to break their force, or shield him from the full weight of misfortune. It is as if his right hand was withered—as if one wing of the eagle was broken, and every movement that he made brought him to the ground. His eyes are dim and glassy, and when the film of death falls over him, he misses the accustomed tones which might have soothed his passage to the grave.

THE HOME OF THE DEAD.

Public taste, the requirements of enlightened opinion, the dictates of the holiest human affection, imperatively require, for a cultivated and socially progressive community, places of sepulture that shall not be repulsive charnel houses. The grave should be made beautiful and holy with pleasant paths around it, and sweet flowers upon it, with ever-blooming verdure around, and the eternal marble above, to consecrate it as a sacred place apart. Such care for the rest of the dead tells of yearnings for immortality—of aspirations above the clod of the valley, that

would simulate here on earth the paradisaical bloom of the spirit-land. It indicates that higher civilization of the soul, which is not the mere result of scientific culture and legal restraints—it elevates our physical being above brute existence, which perishes and passes utterly away.

DEATH-BED SUPERSTITIONS.—The practice of opening doors and boxes when a person dies is founded on the idea that the minister of purgatorial pains took the soul as it escaped from the body, and flattening it against some closed door (which alone would serve the purpose,) crammed it into the hinges and hinge openings; thus the soul in torment was likely to be miserably pinched, and squeezed by the movement on casual occasion of such door or lid. An open or swinging door frustrated this, and the fiends had to try some other locality. The friends of the departed were at least assured that they were not made the unconscious instruments of torturing the departed in their daily occupations. The superstition prevails in the north as well as in the west of England; and a similar one exists in the south of Spain, where I have seen it practiced. Among the Jews at Gibraltar there is also a strange custom when a death occurs in a house; and this consists in pouring away all the water contained in any vessel, the superstition being that the angel of death may have washed his sword therein.

PHYSICAL INFLUENCE OF HABIT.

Proficiency in all handicrafts is the legitimate result of the physical influence of habit. The blacksmith makes a nail, for instance, well and quickly only after many and often repeated trials. The hand and eye must be educated—habituated to the work, and then they cannot fail. It is so with all mechanical professions. The artisan by a long apprenticeship becomes acquainted with the use of the proper tools and at last the master of his trade, and the habits then acquired, whatever may be his after situation, will influence his whole life.

SCRAPS TO THE CURIOUS.

If a tallow candle be placed in a gun and shot at a door, it will go through without sustaining any injury; and if a musket ball be fired into water, it will not only rebound, but be flattened, as if fired against a solid substance.

A musket ball may be fired through a pane of glass, making the hole the size of the ball without cracking the glass; if the glass be suspended by a thread it will make no difference, and the thread will not even vibrate.

In the arctic regions when the thermometer is below zero, persons can converse more than a mile distant. Dr. Jamieson asserts that he heard every word of a sermon at the distance of two miles. We ourselves heard across a water a mile wide, on a still day, with perfect distinctness, every word of a mother talking to her child.

It is a sign of wisdom to be willing to receive instruction: the most intelligent sometimes stand in need of it.

Editor's Notices, &c.

NOTICE.—We regret that in consequence of an accident to our press, this number of the *Agriculturist* has been delayed to the latter end of the month. From the size and shape of the sheet there are but two or three presses in the city that will work it. These are so constantly employed that we could get the use of only one of them, and that during the night. We have always had great difficulty in getting the *Agriculturist* printed. The Edition being large it takes a long time to work it off on a hand press. We are glad to announce, however, that one of our printing establishments is importing a power press which will enable us to throw off our edition in a couple of days. We shall then endeavour to have the *Agriculturist* in the post office by the 5th of each month, with as much regularity as other publications of small circulation. The next number with a full account of the Niagara Fair, official copy of the Prize List, &c., will be published and mailed by the 10th of October at the latest.

THE PROVINCIAL FAIR.—In consequence of the circumstance above mentioned, one side of our paper had not gone to press until we returned from the Niagara Fair, we have no room to give any account of it in this place, but we may mention that it was in every respect a most successful exhibition. The weather, except a part of one day, was fine, and the number of visitors greater than on any previous occasion. As many as 30,000 visited the grounds during the Fair.—The funds of the association will be ample to meet all demands. The next Fair is appointed to be held at Brockville. We trust the Farmers of that vicinity will not allow it to be said of the next show, that there is a falling off. We can assure them it will be necessary to bring out their best productions. Our October number will be out in a few days with the Prize list, &c., &c

THE EASTERN PROVINCES.—We beg to inform our subscribers in Nova Scotia and New Brunswick, that in remitting for the *Agriculturist* it would save us much trouble, besides a loss of at least ten per cent, if they would send us notes of the Bank of British North America, or of Quebec, or Montreal Banks, even American money is more available than the bills of the local banks.

TO SOCIETIES.—It would greatly oblige us if those Societies in arrear for the *Agriculturist*, would remit us during next month. The printer and paper maker will not wait. The Societies have received, or might have received, their share of the annual grant and they will consequently be able to spare us the small share of their funds to which we are entitled.

BOARD OF AGRICULTURE.—The reader will find in this number some remarks in reference to the new Law. We may mention here, for fear it should be overlooked, that the first 12 sections of the Bill as published in the 6th number of the *Agriculturist* have become Law, a few verbal alterations excepted. The County Societies should not fail to elect the seven members at their next annual meeting.

SALE OF SHORT HORNS.—The stock of Mr. Morris, an American gentleman of wealth and enterprise, is, we are informed, of a very superior kind. He sends us the following notice in order that Canadian breeders who may wish to improve their herds by an infusion of fresh blood, may attend his sale.

POSTPONED SALE of full bred Short Horned and improved Dairy Stock:—

Owing to affliction in my family I have postponed the Annual Sale which was to take place in October 1850, until the 28th day of June 1851.

I also decline selling any Stock by private Sale, so as to offer the Public, at Auction, all the Animals I have to part with, without having any previously selected from the Herd, and all Animals offered will be sold without reserve.

My new importations of Short Horns, Devons, South Down Sheep and Hogs, will arrive sometime during the Fall.

Timely catalogues with full descriptions of each Animal will be published in the principal Agricultural Journals.

L. G. MORRIS.

MOUNT FORDHAM, }
Sept. 16, 1850. }

ENGLISH MARKET.

LONDON, Sept. 6.—5 P. M.

The weather throughout the week has been most favorable for harvest operations, which are now being rapidly brought to a close; the reports of the wheat crop are various, but we believe on the whole it will prove an average. Barley is complained of, both as to quantity and quality. The complaints of the potato disease have not increased. In the colonial and foreign produce markets we have again had considerable activity; coffee, sugar, and indigo, being the articles most in favor. Cotton dull and prices barely supported. Money continues in fair demand, without any rise in the rate.

At Monday's CORN market there was a good supply of new English wheat, many samples of which were inferior to that which sold last week, and some difficulty was found in placing them even at a reduction in price, while picked lots readily brought former rates. Foreign in large supply, sold slowly in retail at the previous currency. Barley, beans and peas 6d a lb dearer, the first being in demand for export to Holland. Floating cargoes of foreign wheat were in demand for Ireland, and several were sold from 3s a 4s for Mediterranean and Black Sea. Indian corn also in fair demand from 2s a 2s for Bufile and Galatz. On Wednesday there was little doing. Yesterday's market was steady; former prices, however, being insisted on for most articles, the demand was rather checked in consequence; American flour was more enquired for at 2s a 2s per barrel for superfine best brands; inferior 19s a 21s.

TORONTO MARKET.

TUESDAY, Sept. 24, 1850.

Transactions in flour have been very limited. Miller's extra superfine, by retail, in bags, 19s 3d a 21s 3d per 196 lbs. Farmers' fine, by retail, in bags, 15s a 17s 6d per 196 lbs.—Wheat ranged at from 3s 6d to 3s 11d per bushel of 63 lbs. The latter price being only paid for superior samples.—Spring Wheat 3s per bushel. Rice fetched 2s 6d per 60 lbs. Barley is coming in slowly, but is in good request at 2s 6d per bushel of 42 lbs. Oats 1s 6d to 1s 9d. Peas, the demand is merely nominal, therefore the price is as low as 1s 6d to 1s 9d per bushel. Potatoes are advancing in price, as the rot has affected them very much. They have been sold from 2s to 2s 6d per bushel for good.