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THE

Canadian Agriculturist,

OR

NAL AND TRANSACTIONS OF THE BOARD OF AGRICULTURE

OF UPPER CANADA.

. XII. TORONTO, AUGUST 16, 1860. No. 16.

SEED TIME.

work of gathering in the products of the fields will scarcely have been concluded the farmer must again commit to the earth d for, in the greater portion of Canada the most important crop of the next year, ll wheat. And on the manner in which done will depend mainly, subject to those ces over which we have little or no con- e result at next harvest. The due pre- n of the land will have been attended to the past few weeks or months, according mstances, and on fields which are to be good season little will now remain to be nt to deposit the seed in the soil. Manure course still be applied, or a final deep g given before ridging up, if necessary, would be better that these operations have been attended to before the present It is an advantage in case of dry weather, the last ploughing, or ridging up, done e before the seed is to be sown, because means the soil becomes consolidated, a fine pulverised state favorable to the n and retention of moisture from the ere. And the seed on being deposited er distance below the surface is at once nveloped in fertile, moist earth, favora- s immediate vegetation, and it is thus to make a good root and establish itself y before the advent of winter. For g the seed, the drill is the best means, ve of economy in seed and evenness of ecause thereby the seed is placed at the proper depth, and in the soil in the best condition to receive it, and the ridges left between the rows are an advantage as a protection to the plant against winter killing. Where there are difficulties in the way of using the drill, the seed may be covered in with a light plough or gang of ploughs, and the ground left without harrowing. In dry weather, which not unfrequently happens about the last of August and beginning of September, if the ridging up is left till just before sowing, the effect of the ploughing is to dissipate what moisture the soil contained, and the seed being then harrowed in, a great deal of it lies among coarse dry lumps, instead of being buried in fine mould, closely pressing it on every side; and the consequence is that it does not vegetate till after a drenching shower of rain, if it ever vegetates at all, and half perhaps of the best growing season is thus lost, and half the seed thrown away.

The question of seed is an important one. It is established that if we can get wheat to come into ear and ripen some ten days in advance of the usual time, we have thereby a much better chance of escaping the depredations of the midge. The *Mediterranean* is proved to be an early ripening variety, and is much sown on that accoun in the State of New York and in some parts o this Province. The old *Mediterranean* is red bearded wheat, and is of inferior quality to our best white wheats, its early maturing being its great recommendation. The *white Mediterranean* is a bald white wheat, lately introduced from Europe, and is as early, and of much better

quality than the Mediterranean. The *Early May, White Kentucky,* and other Southern varieties from Kentucky, Virginia, Indiana, Missouri, Southern Illinois, &c., have been tried with very favorable results, in some cases, as to their early ripening qualities, in the adjoining States and this Province, while in other cases the experiment has been attended with disappointment. We think there is sufficient proof that Southern wheat will ripen earlier in a northern locality than the native sorts, but in order to test the matter fairly, the farmer should be sure that he obtains the genuine article, and that of a good variety. Whatever kind of seed is sown care should be taken that it is of an unmixed sample, and free from chess, cockle, smut, or other impurities. The quantity of seed is also to be taken into consideration. When sown pretty thickly, the autumn growth of leaf assists in protecting the root of the young wheat against the winter, the plant has less room and less need to tiller largely in spring and early summer, is consequently less exposed to attacks of rust and midge, and ripens a few days earlier. Although in extremely favorable seasons, a larger head and plumper berry may sometimes be obtained from a thin seeding, yet the majority of experiments show that a moderately thick sowing is more to be depended upon for a good crop. We should therefore recommend on ordinary ground not much less than two bushels of seed to the acre, or in some cases as much perhaps as two and a quarter or two and a half bushels. On very fresh and fertile land, particularly if sown with the drill, a bushel and a half, or a bushel and three pecks may perhaps be found sufficient.

As to the time of sowing, something of course depends upon the season, and upon peculiarities of soil, situation, and other circumstances. Before the appearance of the fly, any time from the 1st to the 15th, or even the 20th of September, was considered in good season. Now, however, in districts where the fly is prevalent, it will be prudent to begin sowing as early as the last week of August, and finish not later than the first week in September. In any case early sown wheat has a better chance of establishing itself well before winter, so as to meet the difficulties of that season, and escape rust and other evils, than late sown.

Some other things require attention at this season. In thrashing grain, care should be taken to store or stack the chaff and straw properly and not allow it to be wasted by exposure to weather or being trampled under foot by cattle, as is too often the case, and the want it felt severely afterwards. Outstandings of grain or hay should also be looked to, and not already properly thatched and secured, accident, attended to immediately.

Some attention is still requisite to the crops of parsnips, carrots, turnips, mangels, &c., thin them out properly, keep down the weeds and hoe the ground. An immense improvement may still be produced in a root crop by proper attention to these operations.

Lambs, if not already weaned, should be separated from their dams without loss of time. Let the lambs be put on sweet grass, with sufficient bite, out of hearing of the ewes, so that they may not be disturbed by their bleating, and fall back in condition. The ewes should be put on a pasture till they are dry, when they should be put on good grass.

The Provincial Exhibition.

The Exhibition has been appointed to take place on the 18th, 19th, 20th, and 21st September. It will therefore be only about a week earlier in the season than it has been on several previous occasions. The preparations are progressing at Hamilton in the most satisfactory manner, and we have every reason to believe that this will be one of the most attractive exhibitions ever held in Upper Canada. We trust that all, farmers, manufacturers, and the public generally, will join heartily in the determination to present on this occasion to the inspection of His Royal Highness the Prince of Wales and his distinguished suite, such a display of the agricultural and industrial products of the country, as every Canadian will have reason to be proud of, and such as will convey to him a truthful and adequate impression of our resources. Prize lists and entry forms will be sent to all persons who have been in the habit of exhibiting, and all others may obtain them of the Secretaries of Agricultural Societies or Mechanics' Institutes. Intending exhibitors are requested to make their entries as early as possible.

Editorial Correspondence.

[No. 4.]

THE FRENCH EXHIBITION—ROYAL AGRICUCTURAL SOCIETY'S SHOW OF ENGLAND.

Canterbury, July 7th, 1860.

My communications are all more or less of a necessarily hurried, and, I fear, desultory character. In the midst of shows and rapid travelling one can scarcely find time and opportunity for making rough notes of the thousand things that come under observation. I must say a few words more in addition to what was stated in my last in reference to the late National Exhibition of France.

The department of agricultural produce was, as the rest of the exhibition, very extensive, comprising nearly four thousand entries, arranged in a tasteful and commodious manner for general inspection. It was impossible to possess this splendid display of French industry, including not only the productions of France but also of her colonies, without a proportionate impression of her great varied resources. The produce of the Colony of Algiers occupied a very extensive space, and constituted a marked and interesting feature of the show. In addition to excellent specimens of the roots and cereals common to Britain, were to be seen numerous productions of the sunny south, embracing not a few of such even as are of a purely tropical character. It is said that there are nearly three millions of acres in this country devoted to gardens and orchards, the varied produce of which could be readily understood at the exhibition. Apples, pears, cherries, plums, hops, &c., characterise northern France, while the grape, almond, olive, maize, saffron, and other products belong to the central and southern portions. Tobacco is produced in large quantity, and mulberry trees for feeding the worms are planted by the roadside, as well as in large fields, occupying many thousands of acres. Beet root is extensively cultivated for sugar, the number of manufactories being upwards of three hundred, producing from forty to fifty thousand tons annually. Beet sugar is met with at all the hotels. beautiful in picture and white, but it is deficient in saccharine matter, as compared with cane sugar. A warm sunny summer is essential to the full saccharity of the sugar beet, which has not been found to answer well in England for making sugar, except in particularly hot summers. In Canada it would probably succeed, but whether our sometimes severe frosts in the fall would not injure the saccharine properties of the root, and interfere injuriously with the power of crystalisation, is a matter, at least, doubtful. The numerous wines of France formed a prominent object in the Palace of Industry; and although there is but little probability that among the working millions of England they will displace the national beverage of malt liquors, yet under the new treaty their general introduction among the people of Great Britain, must to some extent diminish the consumption of ardent spirits, and thus exert a favourable influence on the health and morals of the community. All I could learn on this subject is in accordance with my own limited observation, that the ordinary use of French wines, is in that country compatible with general sobriety. I observe in the last Report of the Bureau of Agriculture of Canada, an article containing some interesting and encouraging information on the culture of the grape; whether, however, an extensive culture for the purpose of wine making can be profitably carried out in Canada, carefully conducted experimennts on a sufficiently large scale can show. I saw the other day some excellent specimens of wine produced from some rather extensive vineyards in New South Wales, some sixty or seventy miles west of Sydney.

One thing particularly strikes a stranger in France, viz. the vast amount of small farms, or rather holdings. Two-thirds of the land is divided into lots varying from five to twenty acres each, consisting in fact of long and narrow strips, on which there is neither capital nor scope for the employment of improved modern implements and machines. The compulsory division of land so unrestrictedly carried out in this country presents an insuperable barrier to the general improvement of its agriculture. It appeared to me that on most of these diminutive holdings there was not, as in Belgium, a deep and thorough cultivation, with a husbanding and systematic application of manure. The tools and implements were mostly of the rudest kind, and the occupiers, though evidently tidy and industrious, o not command anything like the same amount of the first necessaries of life as do the majority of English or Canadian laborers. I saw some farms of larger dimensions; a few in the vicinity of Paris from two hundred acres and upwards, well cultivated on a system

of rotation, with improved implements and live stock. These latter, however, cannot be procured for next to nothing: good utensils as well as superior cattle are necessarily costly productions, and for any one to succeed in farming, whatever country he may dwell in, he must reconcile his mind to the necessary outlay.

In the support and management of these kinds of exhibitions the difference between England and France is very great: the latter depends upon the Government for almost everything: the former for nothing. The recent show it is said cost the French Government some sixty thousand pounds sterling! With such an expenditure from such a source, in one of the most beautiful situations of that beautiful metropolis, the Exhibition must necessarily surpass in point of ornament and decorative splendour such as are dependent on voluntary contributions. The Emperor is the mainspring of all these great movements: he evidently comprehends the wants and high destiny of the country which he wisely and beneficially governs.

I omitted to state that I paid a visit to the great national farm and school of Grignon, about twenty miles from Paris, with which I was much delighted. Particulars must be reserved for a future communication. No unprejudiced person, I think, can visit France and its metropolis, even for the briefest period, without forming a high respect for a people so eminently distinguished for art and science, literature and arms. I heard the most friendly feelings expressed both towards England and Canada. For the sake of peace and human progress may such professions be properly and sincerely reciprocated!

THE ROYAL AGRICULTURAL SOCIETY'S EXHIBITION IN CANTERBURY.

July 10th.

The twenty-third Exhibition of this great national society is now being held in this ancient and picturesque city. To-day the public were admitted on the payment of half-a-crown, but the number has not been too great to interfere with, a careful and minute examination of the articles and stock by individuals. Hitherto none but those officially connected with the show could find admittance, except by special order. The Implement yard, however, was open to the public on the payment of a crown. The grounds, consisting of about thirty acres, are beautifully and conveniently situated within a mile of the city, close to the railway, and the arrangements appear to be very complete. The division of labour in this respect has been carefully studied, and the varied machinery of management seems so far to work noiselessly and efficiently. Here may be seen the aristocracy of the land working with tenant farmers and mechanics in conducting the operations of the magnificent Exposition of the agricultural and mechanical industry of England: and the police and subordinate officers are men in their stations of superior intelligence and character. As all entries for the exhibition finally close on, I think, the 19th of May, some six weeks before the show takes place, a detailed catalogue is prepared and published, and all animals and articles are strictly arranged in a systematic manner. With a catalogue of this kind of every article occupying its own corresponding place it is easy to ascertain at a glance, the name and residence of its owner, and such other particulars as most people desire to know. I cannot see why something of this sort could not be done with our Provincial Shows in Canada, provided the entries were made more explicit and that they were made absolutely to close a few weeks before the time for holding the exhibition.

The present show is not so large as its two immediate predecessors: Warwick and Chester being in a more central position, surrounded on all sides by a dense population, while Canterbury is situated in the South-east corner of the island. The falling off, however, is not very great, especially when it is considered that twelve or thirteen principal firms manufacturing agricultural implements and machinery, in consequence of an unfortunate misunderstanding or quarrel with the Society, declined exhibiting. These manufactures have on previous occasions covered several acres with their productions carefully and often tastefully arranged, and thus constituted unquestionably an important and attractive feature of the exhibition. After many of the principal tools and machines of these intractable manufactures were in the field and exhibited by agents, who in this country are generally the purchasers.

The following analysis will give the reader a definite idea of the extent of the exhibition. *Shorthorns* the number of entries (and in all departments what was entered was exhibited with only a very few exceptions,) was

refords, 43; *Devons*, 39. Other established
eds. 22: *Sussex*, (special prizes) 26. Horses
tallions for agricultural purposes of different
s, 30: Mares and Foals for agricultural pur-
es, 6: Two year old Fillies for agricultural
poses. 11. Dray Horses—Stallions, 14;
rough bred Stallions for getting Hunters, 7;
od Mares for breeding Hunters, 8; Brood
es for breeding Hackneys, 2; Stallion Po-
. 2: Mare Ponies, 6. *Leicester Rams*, 53;
s of five shearling ewes of the same flock, 6.
thdown Rams, 65: Pens of five Down
rling ewes of the same flock, 10. *Kentish
Romney Marsh Rams*, 20; Pens of five
rling Ewes of the same flock, 4. Long
led sheep, not qualified to compete as Lei-
ers or Kentish Breeds, *Rams*, 56; Pens of
shearling Ewes of the same flock, 7. *Shrop-
e Rams*, 58; Pens of five shearling Ewes
e same flock, 9. Short wooled sheep, not
ified to compete as Southdowns or Shrop-
sheep—*Rams*, 62; Pens of five shearling
of the same flock, 9. Kentish or Romney
h breeds, (special prizes)—Pens of five 2
3 years old Ewes of the same flock, 7. Pigs
ars of a large breed of any colour, 17;
s of a small white breed, 16: Boars of a
black breed, 11: Boars of a breed not
le for the preceding classes, 9. The breed-
ows were subjected to the same classifica-
and amounted to 48. In the Implement
rtment the number of exhibitors was 206,
exhibited four thousand articles, including
a number of large and expensive machines,
ices of some reaching to several hundred
s. Besides there were special prizes offered
Canterbury Local Committee for Hops
ood, in which there were 50 entries.

show of Live Stock was, taken as a whole,
eeding fine quality, and in this respect
qual to previous meetings. Among the
s breeds of horses were animals of very
or merit; among which stood not least for
g purposes, the Suffolk Punch. The
orns still maintain the high position they
o long occupied, although the class of
rds was both numerous and of excellent
As a class the latter were very uniform,
ng high and systematic breeding, and in
n to the premiums, quite a large number
d commendations from the Judges. The
emium for shorthorn Bulls, of two and
eeding six years, has again been won by Col. Towneley, of Burnley, Lancashire, by "*Royal Butterfly*," a brother of the celebrated "Master Butterfly," that was sold for 1200 guineas a few years ago and sent to Australia. "Royal Butterfly," is allowed by competent judges who have seen both to be on the whole superior; he is near three years old, of a roan colour; sire, "Frederick"; dam, "Butterfly"; sire of dam "Jeweller." Fabulous prices, it is reputed, have already been offered by foreigners for this extraordinary animal, which is attracting the attention of large numbers of visitors. I heard it stated yesterday on good authority, that the English breeders will not be so ready in parting with their first rate animals as formerly, but will retain more of the best blood for themselves. The second prize was awarded to "*Prince of Prussia*," a truly princely animal, turned 3 years, owned and bred by Mr. James Dickinson, of Wigan, out of "Amelia" by "Pope's Eye." It is a little singular that both these premiums should go to Lancashire, a county much better known for its cotton manufactures than for agriculture. In Pigs too this part of England takes some of the best prizes. I have neither time nor space to go into particulars with reference to any department of the show; and this is the less necessary since the *Mark Lane Express*, and other English papers, will, in a few days, publish, after a thorough examination by competent judges in their several departments, a full systematic report. The *Devons* constituted a beautiful class of animals; several in point of symmetry and breeding seemed to have reached, what perhaps in practice is hardly attainable—perfection. The *Sussex* cattle did not muster in such large numbers as might have been expected in this part of England. Some fine specimens however were present, indicating much higher breeding than I had been accustomed to observe among this class some years ago. They were evidently derived from the Devons, which in color and general appearance they much resemble; but they are larger and coarser; like the Devons the oxen make excellent workers.

The sheep as a whole were excellent. *Cotswolds* were in large numbers, and their great size and fine appearance attracted much attention; the same remark will apply to the *Leicesters* and *Shropshire* beeds, but the *Kents* or Romney Marsh appeared to be below par. This impression might arise from their comparing.

somewhat unfavorably with other and superior breeds placed in juxtaposition. They are, however, a very valuable breed, adapted to the exposed situation in which they are principally found. The pure *Southdowns* formed a most attractive class, and Jonas Webb of Cambridge again appeared in all the strength of former years. He completely carried off this year all the honors both from the Duke of Richmond and Mr. Rigden, who have to be content with the commendation of the Judges. This result is both instructive and encouging. I well remember hearing the Duke say many years ago that he would continue to persevere till he obtained the first position against Mr. Webb; he did so and succeeded. His Grace will again have occasion to put into requisition the same noble qualities.

The Implements and Machines were tested last week, either in the trial yard or the open field. I felt particularly interested in the steam ploughs, and the reapers and mowers, which are recent introductions in this country, particularly in this district. The steam ploughs were put to work in a field near the show grounds, and from the stiff character of the soil and great inclination of the surface they were subjected to the severest test practicable. Four ploughs started, but two of them were soon found inadequate to the work, for want of sufficient power. Fowler's plough performed its work easily and thoroughly, turning over three furrows of six inches deep up the hill and four down. His balance four-furrow surface plough, made by Ransomes & Sims, was propelled by a 12 horse set of steam cultivating apparatus. The 12 horse engine has a double cylinder, fitted with self-moving and reversing gear, windlass, and tender, anchor, 800 yards of steel rope, headland ropes, 20 rope porters, two snatch blocks, and field tools complete. The price of this apparatus complete is £699, and the plough adapted to it, £81. There can be no doubt but this machine is capable of ploughing in a workmanlike manner, the most obdurate soil. The rise in the upper part of the field was 1 foot in 7, and the work had to be performed directly up and down the incline. The other plough was Robs & Co.'s; the apparatus much lighter and cheaper; it turned two furrows up the hill and three down; the work although effectually done was in appearance inferior to that of Fowler's machine. The Judges awarded £90 to the latter and £10 to the former. These engines propelled grubbers and scarifiers with great facility, and are adapted to most field operations. On the vast prairies of the West they must be particularly advantageous. To make a thorough steam plough or cultivator is perhaps the most difficult problem in agricultural mechanics: but the result has now been accomplished, if not in a state of perfection, at least in a practicable shape. Burgess & Key's machine an improvement on Allen' of New York, obtained the prize and performed its work in long meadow grass admirably. Two strong horses and one man cut an acre per hour, the price £30. The same firm manufacture a good reaper. but the test was not thorough, it would only be applied to an inferior crop of green

I happened to fall in with Mr. Stone of Guelph. in the cattle yard to-day, and inspected the Horse and Shorthorn classes together. To-morrow there is to be a trial of Ploughing with a view of testing the old Kentish turnplough so long and highly thought of in the county. Other ploughs it is expected will be put into requisition. The practice of ploughing in this county is to turn the furrow almost completely over, and to break it for a seed bed. To-morrow and Thursday are shilling days and vast crowds of visitors are expected. The weather is fine, but cool and cloudy for the season. I have experienced only one or two summer days as yet, and they could not be said to have been hot. The crops on stiff, wet soils are very indifferent; and the prospect on the whole is not cheering. I am glad to see favourable accounts from Canada.

G.

Pleuro-Pneumonia in Cattle.

From an article in the *Irish Country Gentleman's Newspaper*, by Mr. A. Henderson, Author of the "Practical Grazier," we extract the following remarks on a system of treating cattle affected with Pleuro-Pneumonia, by bleeding by means of covering with wet, cold blankets, &c.

"Mr. Lord states, that under the following treatment—eighteen animals out of twenty recovered—whilst nineteen animals out of twenty have died under the usual application of depletion, sedatives, counter irritation, &c. He move the animal into a large, airy box,

e a couple of thick horse-rugs, or thick cov-
. saturate them with the colde : spring
ter, and place them on the body of the ani-
l, put five or six other rugs or thick cover-
s upon these, and a long wrapper round over
to keep them close to the body, also two
hs, one behind the shoulder and the other
ore the udder. A long girth fore and aft
eep the clothing from shifting, is advisable.
ediately after adjusting the clothing, give
ounces of spirit of nitre ether in a little
l water, a wine bottle, with water and ether
to the shoulder: in half an-hour or three
rters give another dose: then place a bucket
old water before the animal, in some cases
ill drink two or three buckets, in a short
the animal will perspire: keep clothing on
ive or six hours: then remove the cloths,
put two dry rugs on with wrapper and
s: keep them on for a few days, and cast
ually. The diet shou'd be a little thin gruel
ran mash. If the bones are torpid, give one
d and a half of raw (boiled oil is bad for
e) linseed oil. In the majority of cases,
's not necessary. If the animal is not com-
ably relieved in ten or twelve hours, repeat
pplication and doses. Sometimes this has
requisite two or three times, but usually
rst only is necessary." From the anxiety
moving from the minds of the public in
al, the idea that no cure exists for pleuro-
onia, I have far exceeded the detail of
a subject. From the varied success as
d by men of experience, it might be deem-
erfluous stating my experience of the dis-
but as my accidental discovery, which I
thought quite *original*, supports Mr.
s method of cure, of which I most approve,
o to fulfil my promise, to give the public
perience of such a disease and leave them
ge of it along with others stated by men
at experience.

the outset of attempting a cure in 1845,
farming extensively in the neighbourhood
nburgh, where the disease was occasion-
y prevalent and fatal, in which I shared
with my neighbours: but not being
ghly acquainted with the nature of the
. I contented myself by following the
routine of attempting a cure, as prac-
my neighbours, and so generally by cow-
, and others of practical experience,
was first to bleed and give physic to cool
od and keep the bowels open, and, in
stances, to blister the sides, in which
was sometimes successful, but more fre-
otherwise; consequently I chimed in
e prevailing opinion, pronouncing the
incurable, and contented myself with
ing to the difficulties and losses with
was doomed, along with others, to con-
nt a favorite grey mare was attacked
disease, on which I bestowed extra at-
although adhering rigidly to old reme-
t found my patient sinking fast under
all exertions, and after feeding with gruel, and anything nourishing, she became so much reduced and feeble, labouring under all the most deadly symptoms imaginable, until at length all hope of recovery were extinct; in short, it was recommended by all who witnessed her agony to put her out of pain, but this I would not submit to, and before leaving her at night, which I was convinced would be the last that I would be troubled with her, and by way of showing my last respect to a great favorite, I covered up her stretched-out form with some large horse-sheets, and so left her to die—which I thought inevitable. I went next morning, at break of day, expecting to find her sufferings ended, but to my utter astonishment and gratification, when I opened the door of the loose box, she lifted up her head and looked round, as much as to say I am a little better. And upon examination I found the body to be covered over with a gentle sweat, no doubt caused from the load of clothes with which she had been covered the night before, so I renewed my exertions by keeping up the perspiration: and finding it somewhat difficult to accomplish, I had recourse to wetting a blanket in cold water, wringing out the water, then covering her up with it, and put some dry blankets over all, which had the effect of raising a great steam, which I continued by the same process to keep up for twenty-four hours, after which I only kept her warm with dry clothing, and as I found her daily improving, lessened the burthen of clothes: and by giving her an occasional drink, and continuing to give gruel and other nourishing similar food, she, in a little time, made a complete recovery. I, however, kept her slightly sheeted for some weeks, whilst at grass, putting her always under cover at night, and keeping her in the house all day, if either wet or cold. I need scarcely say that I was not only proud of the recovery of a favorite animal, but of the idea of having, though accidentally, discovered a remedy for so mortal and once-thought incurable disease.

But in order to test the validity of such cure, shortly after, two others of my cattle took the disease, when I commenced by bleeding and physicing, which had, apparently, such a good effect at first, that I thought all that was further necessary was to keep them in a well-ventilated, warm house, but soon began to find that the disease was beginning to increase, until, at length, they both became very ill, when I immediately had recourse to the treatment here noticed of my *favorite*, when both made a most rapid recovery—so I was still prouder than ever; and as the disease in the county, after a great many deaths, began to recede, I regretted not having an opportunity of testing my *accidental discovery—cold water cure*—a little further; however, I was soon gratified in this respect by the disease again breaking out in a neighbour's stock, but rather assuming a mild form, and the owner being a person rather inclined to leave nature to itself, administered

nothing but physic, when a number recovered, but some died; I recommended my cure to him, but being void of faith and strongly tinctured with procrastination, he put off from time to time until his loss by death, in milch cows and young cattle, became very serious. He had two of the young ones left, which he actually turned out to die in the field; on seeing this I *begged* the two animals from him to again test *my* cure, to which he most readily consented, at the same time assuring me that it was a vain attempt. I put them into a house and commenced with the same treatment as before, when they very slowly got better; but by perseverance and strict attention, I again effected a cure, to the owner's utter astonishment. I have thus again laid before the public a statement of facts, which I am confident will prove themselves to be so, if carefully acted up to, and persevered in; should any one of my readers be so unfortunate as to have patients to test the experiment by trying the *cold water cure*. From all that is here advanced in support of the *cold water cure*, may be gathered that the same idea may strike two different persons, in or about the same time, as myself and Mr. Lord; but as my cure was not, at least, laid before the public when Mr. Lord wrote upon the subject, I cannot impeach him with being a copyist. Also, that if the wet blankets, &c., are not a cure of themselves, they at least, prepare the animal, by perspiration, so as to make medicine, &c., act quickly, so necessary in this disease, which is generally accompanied with all the pores of the body being shut, as also very much *hide bound*."

Report of the Maine Commissioners on the Cattle Disease.

We have received the report of the Commissioners appointed by the Governor of Maine to obtain full information as to the nature and extent of the disease, the method of treatment, the manner of infection, and what measures may be deemed necessary to prevent its spread, or arrest its progress. The information contained is equally important in this country. The Commissioners were Messrs. S. L. Goodale, A. Nourse, E. Holmes. They rendered their report on 21st June. We give the following extract. After sketching the history of the introduction and progress of the disease in Massachusetts, full particulars of which have already appeared in the *Agriculturist*, the Commissioners proceed:—

"As with all other contagious diseases, both among men and brutes, some individuals are found to be less susceptible to the contagious influence than others, and some are not affected by it at all; and doubts have arisen in the mind of several European writers on this point, the weight of opinion being, however, very strong in favor of its contagious nature; but we submit that the facts in Massachusetts are such as *prove it beyond a reasonable doubt*. We find the disease to be not only contagious, but insidious and deceptive, malignant and fatal. *Insidious*, inasmuch as it often creeps upon the animal so stealthily that it is difficult and sometimes impossible to fix with any accuracy the date of the attack. *Deceptive*, in that animals which have had the disease and may fairly presumed *from appearances*, to have recovered, one or both lungs have been found on slaughtering them, to be little else than mass of disease.

That it is both malignant and fatal, unhappily needs no proof. Nearly one thousand animals have already fallen victims, either to the disease or to efforts made with a view to its extirpation and more than an additional thousand are either known to be sick, or, from having been exposed are under the ban of suspicion. It is *not* true that the distemper is universally fatal, for many few survive which have been its subjects; but it is not yet positively known that even one has been absolutely *cured*. They often come to eat well, drink well, and thrive tolerably, thus exhibiting the ordinary characteristics of health, and yet, a post mortem examination, within our own observation, shown how utterly fallacious were all these indications in such case.

Regarding the term of incubation and of propagation, or the length of time which elapses between exposure and the appearance of disease and also during what period the animal is capable of conveying the disease to others, we greatly regret our inability to arrive at definite or satisfactory conclusions. In some cases the disease is apparent within ten days after exposure, in other 20, 30, 60, 90 days or even more, are supposed to elapse. One case is reported where the exposure was seven months previous. The more usual period appears to be not far from twenty days. When the capability of the animal to convey disease to others begins or ends we have no knowledge. This is a most important point, but all we *know* is, that it may and does do so before any symptoms of illness appear, and, as the lungs of some which have been slaughtered exhibit evidence of the later stages of the disease in one portion and of the earlier in another, there seems reason to fear that the term may sometime be indefinitely prolonged.

As already remarked, this lung murrain, by whatever other name it be called, is of the most insidious nature. Any disturbance of the animal's health is rarely noticed until the disease is fully established, and effusion into the lungs has made some progress. The ordinary rule that not much ails an animal until it refuses to eat, does not hold good with this disease. The early symptoms are so faint and obscure

cite neither anxiety nor attention. By and by the animal gets a dull and dejected look; if at pasture, it may be found in the morning apart from the herd—the back arched—the fore legs rather wide apart—the hair staring—a little uneasy and don't eat well; but later in the day it looks better, joins the herd and eats as usual. A slight, but *husky* cough is occasionally heard, and sometimes quicker breathing, as if from extra exertion. If a cow, the milk diminishes, accompanied with heat and tenderness of the udder.

As the disease progresses the eyes look duller, the head is lowered, the nose protruded, the cough more frequent and husky, the appetite ceases, rumination is suspended, the limbs and surface cold, the skin tight over the ribs, the spine becomes tender, and pressure upon it, or between the ribs, produces evident pain. As the disease approaches an unfavorable termination, the breathing becomes fearfully laborious and accompanied with mucous and sometimes with pus; the eyes sink, extremities cold, the mouth is covered with froth, the strength fails and the poor beast falls and dies; or, if the animal is to recover, the severity of the symptoms abate, it looks better, eats some—if a cow, the milk returns, the hair becomes sleek, &c.

Percussion and auscultation furnish the most reliable means of judging, in the living animal, of the state of the disease. Upon striking with the ends of the fingers upon the affected side, a dull sound is usually elicited, proportionate to the consolidation of the lung, or to the presence or absence of fluid in the cavity of the chest. Upon applying the ear to the sides of the chest, one or the other, and sometimes, though rarely, both, are found to be affected. The various sounds cannot be easily or exactly described, but a practised ear will judge with great accuracy between the natural murmur of healthy lungs, and the different sounds recognized in the several stages of the disease.

In what manner, and through what channel, the disease enters the system—whether it makes its attack directly upon the solids, or begins by tainting the blood—these, and other kindred points, are, at present, matters of pure conjecture.

With regard to treatment, little of a satisfactory character can be offered. The severity or mildness of the attack and its termination, whether favorable or fatal, may, not improbably, depend more upon the susceptibility of the individual, and upon the amount or intensity of the contagion taken into the system, than upon any treatment bestowed. Whether subjected to a course of medication, or trusted wholly to the curative powers of nature, some will recover in whole or in part; but we have little reason to believe that any will so recover as to be secure from a second attack, or become *able-bodied or sound, or valuable for the ordinary purposes for which domestic animals are kept.*

Considering the probable unsoundness of those which survive, bearing also in mind the exceeding importance of active and healthy lungs, and the expense necessarily involved in the treatment and isolation of those which are lost as well as those which are saved, the conviction is forced upon us, that attempts to *cure* this disease will rarely, if ever, pay. We may remark, however, that *counter-irritation*, by diverting diseased action from the vital organs to the surface, promises beneficial results, and the application of highly stimulating liniments, blisters, setons, and the like, is understood to have been of more service than aught else.

The appearances after death vary greatly, but there are usually extensive adhesions; consolidation of a portion of the lung tissue, marked by a *peculiar marbled appearance*, is one of the most striking and uniform accompaniments of this disease. In some cases an immense cavity is found in one of the lungs, and, enclosed in that cavity or cyst a cheesy substance or lump, having no attachment to, or connection with, the adjacent lung. In others, the process of detachment had not been fully completed. Some lungs were found to be so hypertrophied as to weigh three or four times as much as in health, and in one the estimated weight was from fifty to sixty pounds!

As, in our present relation to this disease, we deem prevention to be of incomparably greater importance than either a knowledge of the symptoms attending it, the treatment best adapted to mitigate its results, or the morbid appearances presented after death, we will not longer dwell upon these, but rather urge the importance of arousing at once to a proper appreciation of the magnitude of the threatened calamity. If once it becomes naturalized among us, we may never again expect immunity from its attacks. When once fairly established, either here, or elsewhere, its seeds may remain, even after apparent subjugation, and whenever the necessary conditions present themselves, it may break out again with fearful violence.

Our only safety lies in keeping clear of it, and we urge the utmost vigilance upon every individual and upon all competent authorities to see that *no animal be admitted into the State, either directly or indirectly, from any quarter where there is reason to believe that the disease exists.*

We are prepared to say, that absolute and perfect non-importation is the only preventive measure worthy even of consideration. We have no security whatever against the introduction of the disease, so long as animals from neighboring States are permitted to be brought in, whether directly or indirectly, by land or by water. The temptation to get rid of animals which have been exposed is very great; the absence of any indications of disease gives great facilities for doing so, and apparent cheapness may be a fatal lure to the unwary purchaser.

The question of extirpation is, happily, not

yet before us. Should it arise as a practical matter, we do not hesitate to recommend the instant slaughter of all animals affected with the disease, and the complete and perfect isolation from other cattle, of all animals reasonably suspected of having been exposed to the contagion.

Massachusetts is wide awake. Her efforts to save herself and sister States from an unparalleled calamity, are worthy of the highest praise. The only regret is, that the efforts at extirpation were not commenced earlier. Had the Legislation been more prompt, and the first appropriation ($10,000) been made a month sooner, it would in all probability have sufficed to extirpate the disease utterly. As it is, $25,000 have been expended, and it is now proposed to use $100,000 more if needed."

Pleuro-Pneumonia in N. Y. State Six Years Ago.

The following is the important letter of E. P. Prentice, Esq., of Mount Hope, near Albany, N. Y., addressed to the *Country Gentleman*, to which we referred in the *Agriculturist* of July 16.

MESSRS. EDITORS—I notice that a good deal of alarm is felt in different parts of the country about what is called the cattle disease.

From the diagnosis given in the papers, I have no doubt this is Pleuro-Pneumonia, with which I had some acquaintance a few years ago. If it is the same, my observation and experience may be of some service to those suffering now.

It was introduced into my stock in the fall of 1853, by one of my own cows, which in the spring of that year I had sent down to my brother in Brooklyn, to be used during the summer for milk. She was kept entirely isolated throughout the summer, and in November was sent up by the boat. There were no other cattle on the boat at the time, nor could I learn that she had come in contact with any in passing through the streets on her way to the boat, and she certainly did not after leaving it, until she mingled again with her old companions, all of whom were then and long afterwards perfectly healthy. After she had been home about two weeks we noticed that her appetite failed, and her milk fell off; she seemed dull and stupid, stood with her head down, and manifested a considerable degree of languor.

Soon her breathing became somewhat hurried and with a very decided catch in it; she ground her teeth, continued standing, or if she laid down it was only to jump up again instantly. Her cough increased, and so too a purulent and now bloody discharge of mucus from her mouth and nostrils. The excrement was fetid, black and hard.

In this case we twice administered half a pound of epsom salts, and afterwards a bottle of castor oil. Very little but a temporary effect was produced by these doses.

The symptoms all increased in intensity, strength diminished, limbs were drawn together, belly tucked up, &c., until the eighth day, when she partly layed and partly fell down, and never rose again. In a post-mortem examination, the lungs proved to be gorged with black, stagnant blood, the substance of them to be thickened, soft and pulpy. The pleura and diaphragm also showed a good deal of disease and some adhesion.

This cow on her arrival here was put into the usual place in the stable, between others. She remained there for two or three days after she was taken sick, before we removed her to the hospital.

In about three weeks from the time she died one and then the other of those standing on either side of her were attacked in the same way, and with but two days between. This certainly looks very much like contagion, but my attention had not before been called to this particular disease, and to suppose inflammation or congestion of the lungs contagious, was so opposed to my pre-conceived notions that I did not even then admit it, and these animals were suffered to remain with the others until their comfort seemed to require the greater liberty of open pens.

One of them was early and copiously bled twice, while epsom salts were administered freely by the stomach and with the injective pipe. The other we endeavored to keep nauseated with ipecacuanha, and at the same time to keep her bowels open by cathartic medicines. Both proved to be of no avail. They both died, the one in ten and the other in thirteen days. Before these died, however, others were taken sick. And thus later I had eight sick at one time.

The leading symptoms in all were the same with minor differences, and so too was the appearance after death on examination.

Of all that were taken sick (sixteen) but one recovered, and they were among those to which the least for, after we had become discouraged about trying to cure them. In all the last cases we made no effort at all, but to keep them as comfortable as we could.

In one case the acute character of the disease changed to a chronic, and the animal lived six or eight weeks, until the whole texture of the lungs had become destroyed. She had become much emaciated, and finally died with the pulmonary consumption.

At the time the first case appeared I had a herd of thirty-one animals, all valuable Ayrshires, in fine condition and health. In the first cases I had a veterinary surgeon of considerable celebrity and experience, and the ordinary approved mode of treatment was resorted to and persevered in. The last cases, before intimated, we only strove to make comfortable.

After I paid the third or fourth forfeit, I began to wake up to the idea that the disease was

h degree contagious, whether I would have so or not, and that my future security was in vention and not in remedy. I therefore sepa- ed all the remaining animals, in no instance ving more than two together, and generally t one in a place.

All were removed from the infected stables d put into quarantine. Isolated cases con- ued to occur for some weeks after this, but spread of the disease was stayed, nor did a gle case occur after this, which we did not nk we traced directly to previous contact.

t is impossible to account for the first case of ich I have spoken. But as the cow in that e was put into a sales stable in New York ile waiting for the boat, though there were cattle then present, yet I have supposed it unlikely that diseased animals had been re, and had left the seeds of disease.

But account for this case as we may (and I e no doubt it is sometimes spontaneous,) I l convinced it is very highly contagious, and t the only safety to a herd into which it has n introduced, is in *complete* isolation, and in I feel, as convinced, there *is safety*.

If cattle were not suffered to return even to barnyard, or to any part of the cattle barns, ept as invalids were sent to the "hospital" ie, until late the next fall—i. e. the fall of 1. In the meantime the hay and straw had been removed, the stables, stalls, cribs, and thoroughly scrubbed with ashes and water, igated and whitewashed with quick lime. I e had no case since, and am persuaded I ld have avoided most of those I had before, had reasonably admitted the evidences of senses in the second and third cases.

E. P. PRENTICE.

unt Hope, June 14, 1860.

Irrigation of Water Meadows.

he following article, in description of what own as "Bickford's System of Irrigation," pied from the "Bath and West of England cultural Journal." It will be read with est by those in this country who have lands ble of being treated in this way:—

ommencing the construction of a water w a carriage gutter is cut along the line e highest ground. This main gutter is for rpose of taking the water from the brook, her source from which it may be derived, ler to feed the smaller or irrigating gutters act it acts the part of a main artery. This gutter need not be laid out by the level. ld inclination should be given to it, ac- ng to the nature of the ground, and the ity of water which can be made available. v it can be had, a fall of 2 inches in a chain venient, but if need be a less rapid fall will answer the purpose. The width of the main carriage gutter should be about 18 inches, and the depth from 6 inches to 1 foot. The dimensions must, however, in some measure be regulated by the quantity of water to be conveyed along it; the gutter diminishes in size as it approaches its termination, so that it runs out to nothing.

Immediately below the carrier should be cut a set of small, tapering gutters. The office of these tapering gutters is very important, as they secure the even apportionment of the water over different sections of the field, adjusting the supply in the way of a self acting valve. Sometimes the end of a carrier itself performs this office, and is tapered accordingly.

The Small Irrigators.—A series of smaller gutters are cut below the main carrier (at different levels,) in the same general direction, in order to catch the water as it overflows from the carriage gutter through the small taper gutters. The distance between these gutters greatly depends on the shape of the ground; where it is undulating and uneven, more are required. These small gutters ought to be laid out quite level. I say quite level, subject, however, to a qualification to be named hereafter. The water as it flows over the land is collected in these small gutters, and as they are practically level, they again distribute the water evenly over the surface, when they become filled; were it not for these small gutters, the water would get into little streams and flow down along the hollows, instead of the ground being all equally covered, especially where the land has never been ploughed or levelled. I mentioned that the small gutters ought to be level—this, however, in practice, must not be carried out with mathematical correctness; in crossing any hollows, the gutter should be kept rather higher, say an inch on 33 feet run, or the water will gather in the hollow and overflow too fast at these points. On passing along projecting ground, on the other hand, the same difference should be made in the contrary direction, viz: an inch lower than the strict level, in order that that portion of the ground may receive its due share of the water.

Outlets, Driers, or Drawing-Off Gutters.—It is of quite as much importance to get the water off quickly as it is to get it on evenly. To effect this, gutters are cut in the direction of the inclination of the ground, *i. e.* in the exact same line along which the water would flow, if left to itself to run: if the gutters take any other direction, swerving too much to the right or the left, they will cut off the water from some of the land on one side or the other.

The Drying Gutters also act as Feeders.—The downward gutters also serve the purpose of feeders. Were it not for these transverse feeding gutters, the land nearest the carriage gutter would always have the first water, and thus receive the greatest benefit, and the lowest portion of the field would come the worst off. In order

to obviate this, the feeders or transverse gutters are cut, from the carriage gutter at the top, across all the level gutters to the lowest. By placing stops in the proper places, the water can be conveyed directly from the carrier to any of the catch gutters, without passing on the intervening land, so that the lowest part of the field can be watered first if thought desirable.

Cleaning out of Gutters.—Gutters cut on the old system require to be cleaned out every year just before the watering season, and this for two reasons. First, because they become choked up with rank grass and hinder the free flow of the water in a horizontal direction, which flow is essential to the success of the level or nearly level carriage and level feeding gutters. Secondly, because the sides of the gutters are trampled down by the live stock all through the summer; thereby spoiling the even edge of the gutter, and rendering the distribution of water irregular. In order to put the old gutters into a good state, a man is employed to clean them out and trim them up, at an expense of about 2s. 6d. per acre. The man so employed leaves a heap of refuse about every 20 paces, and these heaps have to be removed before the meadow is laid up for hay. The gutters consequently become wider every year, till at last the width is so inconvenient that they have to be filled up at great expense and relaid. If the system explained in this paper be adopted, it is recommended that fresh gutters should be cut every year: there is no difficulty in doing this, it is only necessary to follow the line indicated by the original ones, cutting one year above and another below the original gutter. The expense of cutting the gutters out afresh is very trifling, about 1s. or at most 2s. per acre; the sods which come out of the new furrow are placed in the old one by its side and trodden in, and thus all the ground is made good. The cutting of new gutters every year has the advantage of entirely preventing the growth of coarse grasses and weeds along the gutters. In very porous or peaty soils the water is apt to sink away rapidly in the main carriages; on such land it is advisable to cut the carriers wider and not so deep. If clay or road scrapings can be procured within an easy distance, I should recommend a thin coating being put along the main carriers. I have known instances of its being done to great advantage.

The Quality of Water.—Before laying out meadows for the purpose of being irrigated there are several important questions which ought to be taken into consideration. A proper supply of water is of course the first and most essential point, and even if this can be had, it must not be taken for granted that all waters will have a beneficial effect when used for the purpose of irrigation. It is found that water flowing from the surface of "wet peaty" or "black moory" soils is positively injurious; water also which contains large quantities of iron is hurtful. But streams in which water cress flourishes, and those containing mossy stones, are for the most good for irrigation. Water which flows springs, such as are never found to free most invariably well suited for irrigation; fact water from those which are termed "springs" in most cases produces the ea grass. I presume this is owing, in a great sure, to the temperature of the water b higher than ordinary water, and thus kee the ground warmer. Drainage and ditch should be conveyed into the meadows if poss Water, especially after heavy rains, in pa down to the drains, not unfrequently takes with it some of the manuring substances tained in the soil; if, then, this water is allo to escape, these manuring matters are wa but when it is used for irrigating any mead below, these valuable ingredients are again posited, so that what is lost in one field is g in the other. In mountainous districts muc the water which forms bogs at the foot of and the head of valleys, may be turned t count. If a deep drain can be run up into subsoil, the bog may be tapped, and some e lent water may generally be drawn off befo has become contaminated by the peat. In the cases in which underground draining fa yield useful water for irrigation, may be re ed as exceptional.

Time for Watering.—It is a good pl commence watering the meadows early in season—not later than the beginning of No ber. From this period up till February water should, as a general rule, be kept on six days and off three days. This, of co will partly depend on circumstances, such a supply of water, weather, &c. In frosty we the water should not be removed from tha tion of the meadow on which it was at the the frost set in; it should, if possible be gently moving, and as long as it does so shallower it is the better. If the groun comes covered with a sheet of ice, the may then be turned off. After February meadows require rather more attention, as water should be more frequently removed. weather gets warmer. Care should be not to allow the grass to get a white scum it, for if this is not prevented, serious mi is done, the grass, instead of improving grow less. In hot weather the water ou be changed every day. The land selected meadow should either be naturally dry, or so by draining. If the latter plan has to sorted to, the drains should be cut deep, wise the water will soak into them too qu and the water must not be laid on the same as that in which the draining is done. practicable, as is the case on farms whe meadows are situated below the farm pre it is a good plan to bring the water ab the farm steading, in order to catch any ings from the yards, and thereby to ena quality of the water used for irrigation. washings, or liquid manure, are often,

his improved period of agriculture, allowed to un to waste, whereas they might be made to ut money in the farmers' pockets, by produc ng early and plentiful crops of grass. The ater in brooks, after heavy rains, is generally hick and muddy; this is chiefly owing to the ashings of the land above, and as there is enerally a considerable value in the finely ivided particles of mineral matter thus held in spension, the opportunity should not be lost r giving the meadows the benefit of it. The st crop of grass, in water meadows, is generally d off, the meadow should then be carefully oked over and the water turned on again. As e weather becomes warmer, the water, as I ve before stated, should be kept on for shorter riods. The second crop is mown, in most ses, as it is found dangerous, at least for eep, to water and feed again, especially if the ather is warm, owing to that fatal disease, lled rot, being apt to be produced amongst em. The two great advantages of water mea ws are that they produce a large quantity of rly food in the spring, which is so valuable for es and lambs, and that they yield heavy crops hay, after the first crop of grass has been en off, and this, mark, without any manure ing applied. The cost, a most important estion, according to the system of laying out ter meadows, is very moderate. The late r. Pusey, whose name is familiar to every riculturist, and who was always among the st to improve his estate and confer a benefit on his tenants, had a large quantity of grass d converted into water meadows; the cost, cluding every expense, with hatches across the ook, did not exceed £2 per acre. In many ses the cost would be little more than half as ch. I think, therefore, looking at the small lay and the great advantages to b derived, t landlords and tenants ought to look well und them, and let no opportunity escape ere such a system can be carried into effect.

Cranberry Culture.

The following observations by Nathan Briggs the *Barnstable Patriot* will be found to an r many of the inquiries which are made in ard to cranberry culture.

The Choice of Location.—First, cranberries grow on high moist land, and sometimes lace well, but their proper place is low and ngy, or wet land. The best place, however, peat bog and swamp muck.

Preparation of the Ground.—First make surface of your ground as even as possible, nearly level, with a slight inclination to ds a drain, if you have one, in order that it be easily flowed, and no ponds remain after ing off the water. This may be done with material. There should then be put on this l surface, about four inches in thickness of swamp muck or peat, which should be again covered with about three inches depth of loose sand, free from grass or its fibres, and also from clay or stones. It is not important what the color or quality of the sand, if it be not adhesive, and is free from roots and grass. Clay is not good.

Time of Planting.—From the first of April to the middle of June, on wet ground, continuing through the summer to plant, if convenient, and it is wished. In dry land those planted in summer sometimes fail on account of drought and heat. Those set late lose a year's growth, and may as well be set in spring if the land be not too wet.

Manner of Planting.—The form of plant ing which has resulted in the most rapid advancement of growth and production, is to scatter whole vines upon a mud or peat surface; then press them into the mud with your foot, and scatter over them light sand, about one inch in depth. Patches planted in this manner seem to be a year ahead of those planted in the ordinary way. The general plan, however, is to set them in hills at eighteen inches apart. Take a pointed stick, say four inches in thickness, through which at eight inches from the point insert a guage rod eighteen inches long, which serves to govern the distance from one hill to another. With this pointed stick puncture the ground in uniform rows, insert into these holes a small handful of vines, and press the mud around and among them, spreading them about as much as need be.

Quality of Vines.—Vines should be procured from meadows which have borne well, and of good fruit, as the best way of knowing good bearers. There are several species, such as egg-shaped species, bell-shaped, and cherry-shaped. The former are most approved, and are said to be four or five weeks earlier.

Cultivation.—The cranberry needs little cultivation. Having your land properly prepared as before stated, and properly ditched, and clear of roots and grass, it may require the first year a little hoeing among the vines. After the first year, it would be likely to do as much injury as benefit, by disturbing the young fibres, which are now thickly set. It is better after this, to pluck the weeds by hand, put them in a basket, and carry them off. After the second year, let them alone. The third you will get a fair crop, the fourth will probably be the best. It is not yet ascertained how many years they may do well. Fair bearing is considered one bushel to a rod; there have been instances of one barrel to the rod. Rushes, and bunches of weeds and grass may at any time be cut out.

Flowing.—Flowing is not absolutely necessary. More than half the meadows which I saw were not flowable. If flowable, the water may remain on all winter, and let off in March. It should be let on about the 20th to 25th of May, and again the 1st of June, for not exceeding thirty-six hours; after this it is not needful.

Blossoms are injured by the water remaining on too long, the object of which is to destroy the insects. After the second flowing there is little to fear from them. The grade of the land and the ditching should be so arranged as to easily flood or clear the surface, and the sides of your drains should slope to an angle of forty-five degrees or more, in order to their permanence and utility: the number, arrangement and size being directed by good judgment.

The Midge.

Mr. Alex. Winram, of Cayuga, writes a letter in a late number of the *Cayuga Sentinel*, on the subject of the Wheat Fly, from which we make the following extract:

The excellent Prize Essay of Professor Hind, published by the authority of the Bureau of Agriculture, states that the Fly "appears during the latter part of June and remains until the middle of August." My letter to that Board stated that I first saw it, last year, on the 16th of June, which was also the earliest period observed near the Hamilton plank road, and at St. Catherines, but this year, owing apparently to the absence of frosts, it appeared on the 3rd and on the 7th, was plentiful on the 10th, and was in myriads all over on the 12th. Now, then, comes the momentous question. Can any wheat grown in an infected locality, be so early as to be out of danger of the Midge by the 7th or the 10th of June? I reply, I think not. Then, all our attempts to get before this scourge, by means of Kentucky wheat, or early Mediterranean, seems in vain. We only perpetuate the evil, by affording it means to continue, and until we cease entirely fall wheat sowing, assuredly we will go on as we are going, sowing in hope, and reaping in sorrow.

It is now 25 or 27 years since it was first seen in the famous Genesee Valley, and there it still lingers; and how many sad stories does one hear of its ravages on the southern shore of Lake Erie. There where the farms were swept by the breezes from the waters, the little tiny destroyers could not work, and the harvests were as usual, but in places sheltered from the sweep of the wind, they destroyed all before them; but still, year after year, the relying, unfortunate farmers stuck to the accustomed remunerative staple. Fall Wheat, because others living nigh by, were reaping good crops, becoming, by degrees, almost beggars: but necessity, that stern monitor, made them at last desist from the fruitless pursuit, they turned to other crops, and soon had the wolf, poverty, driven from their doors.

Is their experience no lesson to us? If, from a few isolated good crops, reaped here and there, we continue to gamble on a Fall Wheat, can we be said to be doing our duty to ourselves and others?

On the evening of the 12th, when the sun was just touching the tops of the trees, I went o my fields to search for the midge. Cross some barley, your young friend, John Winr cried, "there they are in thousands," and th they were in sad abundance. I swept some the flies into my hat, and true enough, the r low backed plague was certainly there. clomb the fence towards the rye, and float on a gentle easterly current of air, they came myriads; but putting ourselves behind a bla ened stump, we could accurately see the c tinued shoal float by, and as far as we co discern, the whole atmosphere, nigh the grou was alive, and the ears of the rye were cluste with these creatures. I said, "Let us go hom John, I have seen enough,—and such a si may I never see again." We went everywhe and everywhere we found them—on the gra amidst the oats, in the orchard, and, as if show their numbers, they were also in the hou Nor is this a solitary example; as far as I h heard of in the County, they never were in s abundance as this Spring. In that Goshen Haldimand, the Township of Oneida, I am t they are in abundance, and I have no doubt if the truth were known, they are everywhe

Well then, let us, Hotspur like, "from nettle, danger, pluck this flower, safety," d don, in infected localities, the Fall Wh Many have done so, and do they starve? at all, the very reverse. This Spring there more abundance, less poverty, all over, i there has been for many years; and the rea is plain, it lays on the surface. In formery it was all Fall Wheat, nothing but Fall Wh no other cereal was ever thought of; the c sequence was, not one farm in ten was reall Fall Wheat farm, but all ran after the ones and on they waded, when the bad times ca from bad to worse, landing in the *long* ru having nothing to sell, and little to eat. driven to try peas, oats, barley, spring wh and pay some attention in preparing the l for the spring crop, and the summer fall helping greatly, and having to economise i store expenditure, there is now a healthier more uniform state of things all over the c try, than I ever knew, so the Midge has been without its uses. It checked running farming, forbade extravagance, made le farmers, introduced new grains, and will ultimately do good to us all. Bad farming was Nettle, good farming will be our Flower.

How long the Midge works in the grain, other words, at what time is grain before danger, and after it, is a question rather diff to answer. I was told the other day, by a telligent farmer in Rainham, that Spring W sowed the 1st of May, last year, was badly, whilst that sown on the 20th was completel forebed. Again I was assured by a mos servant neighbor, that on Wheat examined Saturday evening, the larva or maggot, just seen, more appeared on Sunday, an Monday evening the heads were full of t

st on Wheat a week or so later sown, ex-
ned one week after, that is, on the next
urday, none could be found. So the fatal
od must from these facts be about two weeks.
York State that time was thought to be
at the 7th of July.
ow, were intelligent farmers to note down
facts occurring to them, in their own fields,
rding insect plagues, much good would fol-
to all. We would then be enabled to form
orrect judgment, what to do and what to
id. As it is, so varied are the opinions, and
few the data to guide us by that we go on
olling in the dark, in complete uncertainty.

The Nettle.

here was a time in the history of British
andry when the number of plants cultivated
od for man, and the inferior animals, was
edingly small; now, their name is legion,
every year witnesses an increase in the roll
dible vegetables. The nettle is not a new
t: but it is never cultivated; indeed, it is
lly associated in our minds with dismantled
ies, ruined houses, and waste fields: but it
vertheless, by no means, a useless member
ne vegetable kingdom; and nicely dressed
les can hardly be distinguished from spinach,
which, indeed, we have known them to be
tituted on one occasion, without detection
he person, an epicure, too, by whom they
devoured. If the poor could obtain some
aring ingredient, or unctuous substance
which to dress those at present useless
ts, they might be turned to profitable ac-
t: and even without dressing, they could
sed as a substitute for cabbage, in the fa-
e "bacon and greens" Sunday dinner of our
antry. These thoughts anent nettles have
suggested by the perusal, in the *Field*, of
ollowing short paper on the subject:—

rowing on waste and neglected places, flour-
g alike on breezy commons, and in the dirty
es of the suburbs of towns, the nettle has
ier beauty nor fragrance to recommend it
e ordinary observer. Yet, it is well worth
il inspection, on account of the beauty of
tructure. True, it hrs a sting, if handled
erly; but seize the plant heartily, and it
give you little discomfort. The nettle is a
common, low-bred, vulgar plant: but,
rtheless, in its family and alliances may be
l some of the noblest members of the vege-
kingdom; such are the bread-fruit tree,
ulberry, the hop, the hemp, the fig, the
y banyan, and the deadly upas. It has not
without its affectionate admirers, as the
wing anecdote will testify:—A worthy flo-
rist (not a native of the south of England)
showing his green-house to some ladies,
one of them said to him, "What is that in
ower pot? It is very like a nettle." "In-
ma'am, it is just a nettle; but it grew up
sae bonnily, puir thing, that I could na' think
to pu' it." It is not for its botanical beauty,
or respectable connections, that we wish to put
in a word on behalf of the nettle, but for its
uses, which are too much overlooked. Although
growing everywhere, it is very partially appre-
ciated, and then only by the economical. As
an old wife's remedy—and a very good one, too
—it is used in scurvy, gout, jaundice, hæmorr-
hage, paralysis, &c. Nettle-tea, as a spring
drink, were it generally used, would frighten
the proprietors of that much advertised sarsapar-
illa of old Dr. Jacob Townsend The stalks of
the old nettles are little inferior to flax for
making linen cloth, being used for that purpose
in America, Siberia, Germany, and formerly in
some parts of England and Scotland. The
famous Indian grass-cloth, Chu-Ma, is woven
from the fibres of a nettle. An excellent ren-
net is made from the nettle. The expressed
juice makes a permanent green dye for wool.
The root, boiled with alum, yields a good yellow
dye. Nettles dried, and used as fodder, are
capital for cows, increasing the quantity, and
improving the quality of their milk. And one
of the least of its virtues is, that if fish be pack-
ed in it, it preserves the colour and bloom in-
finitely better than any other grass or umbrage,
dried or green. And yet, not for these uses,
but more especially for its edible qualities for
humans, do we wish to say a word in favor of
the poor nettle; and, as the time is at hand
when green meat, though very desirable, is not
very plentiful, we hope the word may be in sea-
son. It is as a pot-herb that we would advocate
its use, and the spring is the best time for gath-
ering nettles for that purpose. To say that it is
recommended by Loudon and Soyer is sufficient.
It is said to resemble asparagus in flavour, but
our experience would assimilate it with spinach,
perhaps from the association of ideas, having
eaten it dressed in a similar manner. The fol-
lowing is Soyer's method:—"Wash the nettles
well, drain, put them in plenty of boiling water,
with a little salt; boil for twenty minutes, drain,
and chop them up, and serve either plain, or
put them in a pan, with a little salt, pepper, and
butter, or a little fat and gravy from a roast;
or add to a pound, two teaspoonfuls of flour, a
gill of milk, and a teaspoonful of sugar, and
serve with or without poached eggs." And now,
ye rich agricoles, if this weed is still unworthy
your notice, tell the poor to send their children
to gather the nettles. They will prove a whole-
some food; and, as spring diet, will be better
relished by the little ones than the vernal brim-
stone and treacle."—*Irish Agricultural Re-
view.*

In England there are 300 silk manufactories,
in which are 2,000,000 spindles and attendant
machinery driven by engines amounting in the
aggregate to 4,000 horse-power. About 7,000,-
000 lbs. of raw silk are imported into Great
Britain annually. Few persons are aware of
the amount of the English silk trade.

Correspondence.

Harvesting Wheat in Illinois.

EDITOR AGRICULTURIST,—Having lately witnessed the operations of harvesting in Illinois, I send you the following note:

The wheat is cut by a reaper, which is driven before the horses, and is called a header, and cuts the straw about six inches below the heads, delivering it upon a platform, from whence it is taken by elevators and deposited in a wagon, driven under the spout to receive it. When the wagon is full, the machine stops till that wagon is replaced by another, when off they go again. The wagon has a large frame upon it extending over the wheels some distance with a board bottom, and a row of stakes around the frame upon which is stretched coarse cotton in order that it may not be too heavy. One man attends this wagon, driving the horses and distributing the heads evenly till the wagon is full, when he drives off to the thrasher, standing convenient in the field, and then feeds it into the machine; when it is thrashed, cleaned, bagged, and hauled into the granary, thus leaving all the straw and chaff, which are not wanted either for food or manure, upon the field.

The machine for heading the grain is so arranged that it can, by means of a lever, be elevated or depressed at pleasure by the conductor, who stands in the rear on the end of the pole, guiding both machine and horses by a tiller wheel. These machines require only two men to work them, and one in the wagon; they thus save binding, stooking, stacking and almost all the teaming, which is of great importance on large farms where men are scarce and wages high.

R. L. D.

Dover Court, Aug. 4, 1860.

Vine Culture.

EDITOR AGRICULTURIST.—Having read that valuable and interesting correspondence of Mr. De Courtenay and others, on the cultivation of the grape in Canada for the manufacture of wine, I have thought that a friendly discussion of the subject through the columns of your journal might perhaps prove beneficial to all parties; therefore, with your permission, I will proceed to state my views upon it. In the outset allow me to state, that I fully agree with all the correspondents upon the one principal point, viz.: that the climate of Canada is suited to the production of grapes for the manufacture of wine. But there is one other important point upon which I beg most respectfully to differ from them all, viz., the variety of grape suited to our climate. After ten years experimenting with every known variety, both native and foreign, I have come to the conclusion that there is not one of them exactly suited to the wants of Canada West. That there are one or native varieties that will resist mildew (to a tain extent) upon their fruit, and make with the assistance of sugar, we readily ad and that there are one or two *foreign* varie that will occasionally produce ripe and delic fruit, without the application of sulphur to mildew we also admit; but in our humble o ion, before Canada can become a succes grape and wine growing country, we must h a grape that can be depended upon, to ripen fruit, never to be liable to have its whole c destroyed by mildew, and to make *good* wi without the assistance of either sugar or w key. Such a grape we fear is not yet knor still we are not inclined to look upon our p pects in these matters, as at all gloomy. Sur if our fathers, after repeated trials, could p duce from the wild crab, such splendid app as we now can boast of, we with the tallest t on our hill sides and valleys, covered with gr vines that bid defiance alike to mildew and c and who have in our cold graperies that splen old Black Hamburgh, which will as certa hybridize with the other as will any of the t most nearly allied varieties of a species, to w upon, and a knowledge of these facts, we h no reason to be discouraged.

If Mrs. Crehore, and Mrs. Gibbs, *without* attempt at hybridizing, could produce fr seed such varieties of grapes as Diana and I bella, what might not be expected by a sy matic cutting out the anthers of one variety, some desirable qualities, and dusting the pol of another variety, of some other desired qu upon the pistil, then sowing the seed of the f thus produced. Have we no Dianas or Isabe amongst our wives or daughters, who with t delicate fingers will aid us in this interesting partment? For there is no use denying, without their ass tance in these days, noth really great and good can be accomplish And would it not be wise for our Horticult Societies, and for our Provincial Agricult Associations, to hold out more inducement this direction? Most assuredly, if Canad ever to become great as a fruit growing cour it must be by cultivating seedling varieties, shall have originated on her own soil.

CHARLES ARNOL

Paris, C. W., Aug. 13th, 1860.

PLEURO-PNEUMONIA.—Hon. Adam Ferg writes to us as follows, under date of July 1

I think it our duty to avail ourselves of e means in our power to investigate and to c the progress of the cattle disease. There i doubt of the malignity of the distemper, t feel strong hopes that it will not find its wa this quarter. I am just returned from York State, and from the praiseworthy prompt measures adopted, I entertain st hopes that it will not be found to spread we the Connecticut River. If my hopes shou

lalous, and it should unhappily break out
, we must act promptly and decidedly. Dr.
nderson, Professor in the University of Edin-
gh, and an *amateur* Veterinarian, assured
that he had found *Aconite*, if the disease
attended to in an early stage, *almost a suc-*
. *I consider the disease to be contagious,*
I trust our farmers will watch their cat-
nxiously, and take any attack in time,
communicate the earliest appearance of
you.

The Wheat Fly.

o THE EDITOR OF THE AGRICULTURIST,—
ut this time last year we addressed the farmn
n the subject of the wheat fly; our endeawas so to direct general attention to its
's, that by thorough acquaintance with
, some means could be devised by which
ountry might be rid of a scourge that at
stant period promised to deprive us of our
e product, the wheat.

ong other suggestions made, we recomed sowing only the earliest kinds of winter
t, and that they should be put in not later
about the end of August or the first of Sepr. In order to obtain if possible an earlier
han the country then possessed, we introseed the growth of Kentucky, where the
st takes place long before our own. The
of this experiment have been various,
ng in some instances a success fully equal
anticipations, but in others a falling off
ting to a failure. We have now reason
k that where the seed was sown in good
the failures have arisen from a portion ined not having been genuine, it is thereir intention to follow up our researches
in trying Southern wheat carefully selectd also by sowing from the produce of
m wheat raised in this country. That all
ations of ours on the subject shall be condisinterested, we may mention that it is
intention to import, or have for sale this
y Kentucky seed.

ave on a former occasion called attenthe fact, that it is the late fall wheat
early spring wheat, that are eaten by
this season's experience has fully conour statement, for we are sorry to say
ny farmers who tried the chances in early
of spring wheat, have lost their crop
ltogether or in part. The fall wheat has
or otherwise, exactly as it has been
late in coming to maturity.

'. Baxter of Wellington Square, in a
the *Globe*, dated July 7th, takes us to
having in 1859 recommended the trial
ucky wheat, and for writing in June last
variety had escaped the fly, because
ollowing out our idea he did not sucn answer we have to say, Mr. Baxter
d his seed in Buffalo, where it is notorious that large quantities of wheat are sold as Kentucky, which never came from that State, and his might not have been genuine.

We do not now remember the date when his purchase was made, but we know it was not very early, which circumstance alone would interfere with the fairness of the trial. In the South farmers sow in August, and we may reasonably suppose that the plant, in order to come *early to perfection*, and *bear as well as our own kinds*, would require as much time to prepare itself here, for the attacks of winter, as it is accustomed to get on its native soil.

The report of the fall crop in the State of New York may be condensed into saying that "notwithstanding the undoubted presence of the fly in its usual numbers, all the early varieties have escaped it, among which are the white and red Kentucky, and the Mediterranean." With us the difference is, that all the fall wheat that came in early, from whatever cause or combination of causes, has this year anticipated the insect in its movements, pointing out more plainly that if we can by any means *secure* this early ripening, we need fear neither the fly nor (in all probability) the rust.

Individual farmers have suffered severely from the effects of spring frosts, and from the action of the fly, but the average yield of grain has been very good in Canada West—greater in quantity than has ever been known before, and the quality of the fall wheat, where it has not been housed too soon, will prove very superior.

Your obedient servants,

F. A. WHITNEY & Co.

Toronto, August 15.

Agricultural Intelligence.

SALE OF SHORTHORNS.—At a sale of Shorthorns lately in England, of the "Waterloo" tribe, being a portion of the herd of Mr. Bolden, of Springfield Hall, Lancashire, twenty-nine animals fetched £2548 17s. stg., or an average of £88 a piece, believed to be the highest prices of the season.

THE WHEAT CROP OF MICHIGAN.—The Committee appointed by the Michigan State Agricultural Society to award premiums on farms, in their report say:—

"As to the quantity of wheat grown, after numerous calculations based upon data quite as reliable as ordinary statistical tables, we feel warranted in estimating the number of acres the present year, at one-third more than the crop of '59, and the average yield per acre at not less than one-fifth greater than in '56 and '57. If these premises be correct, by the aid of the statistics of former years, we arrive at the inevitable conclusion, that the wheat crop in Wisconsin must equal 1,062,097 acres, with a yield of

22,304,037 bushels! So that, after deducting the odd hundreds of thousands, for loss in harvesting and for possible exceptional crops in localities concerning which we are wanting in definite information, we may safely reckon the gathered product at *twenty-two millions of bushels!*—an amount with which we may feed the entire population for the year, and have a surplus of seventeen millions for exportation: which, at probable prices, will yield a revenue of at least *twelve millions of dollars!*"

DAYTON WHEAT.—*Its Success.*—Many of our farmers are much pleased with the Dayton wheat, and think it preferable, in districts where the midge is feared, to any other variety. Our own opinion of it is quite favourable, as *Rural* readers are aware, and we are glad to hear encouraging reports from those who have just harvested the Dayton. A number of farmers have reported favorably, one of whom—Mr. L. A. Beebe, of Lima—writes us as follows:—"Last year I obtained of Elisha Harmon, of Wheatland, a few bushels of Dayton wheat, which I sowed, and the result is highly satisfactory. Some of it I sowed in the same field side by side with the Mediterranean, and I find it is quite as early, and I think it will yield one-third more from the same straw. It is a white wheat, resembling what the 'Soules' *used* to be. A head of this was found to contain thirty kernels, while the Mediterranean has only twenty. There is still another advantage—the Mediterranean is very apt to get down, the straw being limber, while that of the Dayton is stiff and seldom gets down. In short, I think the Dayton is the wheat for the times."—*Rural New Yorker.*

THE IMPORTANCE OF COLLECTING MANURE.—During the bustle of harvest farmers are generally too careless about increasing the manure heap, although it is in the fall that a good foundation should be laid for the pile. We have seen the good effect of top-dressing meadows immediately after the hay crop is removed, and we would recommend our readers to try the experiment even on a small portion of their fields. For this purpose muck, saturated with liquid manure, is an excellent application, and the present is a good time for raising the muck and drawing it near the locality where it will be required next season. We do not approve of using the muck fresh from the swamp, as it requires to be exposed to the weather for a year and to have the roots and fibres it contains perfectly decomposed. When the cereal crops are harvested farmers should set about collecting manure in earnest, as by so doing they will increase the fertility of their land and their own prosperity. There are many solids and fluids suffered to go to waste, which might be made extremely useful in promoting the growth of various crops. Every farmer should have a liquid manure tank, as by this means several hundred dollars might be added to the annual profits of his farm. There can be no great improvement in the agriculture of any country until the management and application of ma are well understood and properly practis *Detroit Tribune.*

ADVANTAGES OF UNDER-DRAINING.—1. It *vents* drought. 2. It furnishes an incre supply of atmospheric fertilizers. 3. It the lower portions of the soil. 4. It l the decomposition of roots and other ma 5. It accelerates the disintegration of th eral matters in the soil. 6. It causes a even distribution of nutritous matters a those parts of the soil traversed by roots. improves the mechanical texture of the s It causes the poisonous excrementitious of plants to be carried out of reach o roots. 9. It prevents grasses from runnin 10. It enables us to deepen the surface removing excess of water. 11. It renders earlier in the spring. 12. It prevent throwing out of grain in winter. 13. It us to work sooner after rains. 14. It kee the effects of cold weather longer in th 15. It prevents the formation of *acetic* other acids, which induce the growth of and similar weeds. 16. It hastens the d vegetable matter, and the finer comminu the earthy parts of the soil. 17. It preve a great measure, the evaporation of wate the consequent abstraction of heat fro soil. 18. It admits fresh quantities of from rains, &c., which are always more imbued with the fertilizing gases of the phere, to be deposited among the abs parts of soil, and given up to the necessi plants. 19. It prevents the formation hard a crust on the surface of the soil as tomary on heavy lands. 20. It prevent great measure, grass and winter grain being *winter-killed.*—*Farmers' Magazi*

FARMING AT SAULT STE. MARIE.—A Mc Knight, writing from Sault Ste. Ma June 20th, to a friend, says:—"In reply question with regard to the raising of Sault St. Marie, I have to say that I hav sown any winter wheat, but others who h the last ten years have never failed of crop, except in one instance, and that w to be badly managed, being put in the September, and the season besides wasn able. Oats I have raised two seasons. I which was a good season, I got forty per acre; in 1859, a bad season, I go bushels per acre. Weighed thirty to t pounds per bushel, and sold for seve cents per bushel in the winter. Of p 1859, I had thirty bushels per acre—go son for peas. Sold part for $1 50 and $2. Of wheat, in 1859, I sowed 2¼ wheat, from which I got 50 bushels plump berry, not worth over 90c, if s There being no mills here, I do not car periment in wheat on that account. O ley and peas are saleable at 6s. for o for peas; 8s. for barley. I have not getting that price the two years (1858

e been farming. Hay (pressed) this year, ld 20 tons at $20 per ton; probably the ave price for the next six years will not ex- $16, and will not fall short of that.

EW BRUNSWICK.—Mr. Robb, Secretary of Board of Agriculture of New Brunswick, issued an address to the Farmers of that ince to place them on their guard against attle disease. He says:—"No cases are t reported in any of the British Provinces, e may expect to hear of them, and it is of ighest concern to us that it should not be duced into New Brunswick. What the to rot has been to potatoes, murrain or e-pneumonia is to horned cattle. Fortu- y the cause of the latter seems to be less ire, although its cure is as difficult as that e former malady. It seems to be purely gious, and thus, by proper precautions, it e kept at a distance at all events.

ere would seem to be no safety but in the and absolute exclusion from the Province l cattle from suspected countries. Raw may also be treated as dangerous.

consideration of private gain or conveni- will justify the least risk in this matter. ers, Butchers, of all kinds, are hereby med most seriously in regard to the import de from without for this year, and urged off all cases as soon as known, and report me to the proper authorites."

G PHILIP CORN IMPROVING.—In a recent sation, E. H. Gilbert, Es q., of Nauda, informed us that he last year raised 525 s of ears of King Philip Corn on four It was planted about the 12th of June the severe frost.)—the rows being 3 feet s apart each way. The crop was hoed ice, but cultivated three times. Mr. G. at according to the experience of himself her Livingston county cultivators, this va- corn has greatly improved within the re years. The ears are much larger a third) than formerly, and the crop roductive, though a few days later in . Has the same improvement been ted in other sections where the King s a comparatively new variety?—*Rural orker.*

S OF SHORTHORNS.—Three large sales of rns have taken place in Kentucky this Mr. Sheffer, B. Warfield and R. A. er have each in turn, afforded buyers an nity. A correspondent of the Ohio *Far-* justly observes:

will find that some animals sold cheap, 5 to $50, while others brought as high : and it was invariably the fact that good animal was offered, the price was at inferior ones no one wanted. But I it is enough to say that the average at fer's sale, in a large herd of cows, hei- calves, was about $90; at B. Warfield's, 70; and at R. A. Alexander's, $150. The reason, I think, why the average was so low, in all, was the fact that so many were offered at one time, which over supplied the market.

Potatoes under Straw.

Having seen, more than twenty years ago, reports of extraordinary success in raising potatoes by covering them with straw, I was induced to try a small experiment, which I will relate.

A plot in my garden about fifty feet square, of well manured clayey land, was spaded up and made fine and smooth. It was then marked out in shallow drills two feet and a half apart, and potatoes (of the pink-eye variety) planted whole two feet apart in the drill, and barely covered with earth. The whole patch was then covered with light, dry wheat straw, which had been very much broken by its passage through a thrashing machine, and the same spread lightly and evenly with a pitchfork to the depth of about two feet. Several showers occurred soon after the potatoes were planted, which settled the straw very considerably, and in due time the vines came up through the straw, and soon covered the entire surface with the rankest vegetation.

Nothing more was done to the patch till the vines were killed by frost in autumn. Not a weed appeared among them. At the usual time of digging potatoes, the dead vines were all pulled and removed: then, with a potato fork, the layer of straw—which was pretty well rotted, and not more than four or five inches in thickness—was carefully removed. To my great surprise, there lay the potatoes on the surface, literally covering the ground, and almost as clean as if they had been washed. They were picked up and measured, but the quantity I do not remember. This much, however, I well recollect: that I never raised so good a crop by any other mode of culture. They were of very uniform size, and of good quality.—*S. Mosher-Latonia Springs, Ky.*

CLOVER, TIMOTHY, AND WHEAT—QUANTITY OF SEED PER ACRE.—In a late communication to the *Rural American*, Mr. John Johnson says:

I once sent out a man to sow clover seed with a sowing machine that would sow five quarts of timothy seed, or any quantity more I might wish. I set it for sowing clover the same as for sowing five quarts of timothy. I gave the man seed enough to keep him sowing until noon, as I thought; but in two hours he was home for more seed. Being sure that he had either driven the horse far too fast, or sown far too thick, I went to see, and found he had sown full 24 quarts to the acre; and as the machine could be set no *closer*, I stopped it, and had the balance of the field sown by hand, at the rate of not quite ten pounds per acre. The result was, where the 24 quarts were sown to the acre, the clover never got taller than the natural white clover we some seasons have in such quantities, but which

is generally too short to cut; while that sown at about ten pounds to the acre was as good as I could wish. I have never sown over 12 lbs. of clover seed to the acre, unless done by mistake, and I have always had large crops if any one else in the neighborhood had.

Half a bushel of timothy seed to the acre will give a better quality of hay, but with me the quantity is much less than six quarts. I know we read that those who sow bountifully shall reap bountifully, but this will not hold good in farming. I vibrated between one and three bushels of wheat to the acre for several years, but settled down at 1¼ bushels, believing it to give the greatest yield; although with 2 to 2½, the wheat ripens a few days earlier. To prove this a farmer has only to sow half an acre with from 2½ to 3 bushels per acre, and sow the other part of the field 1½, and it will befound that the thick sown will be ready to cut a few days sooner than the thin.

It is stated that spectacles are to be sanctioned for short-sighted soldiers. Three infantry recruits arrived at Madras, found to be defective in sight, were thus assisted, and rendered instantly effective. It was observed that if the commander-in chief did not object to the incongruity of a soldier in the ranks wearing spectacles, there could be no other objection to their being supplied to such men as might require them. A large number of officers assist their sight in this way, and it is a well known fact that many sportsmen wear glasses, some of whom are first-rate shots, and who could not see to shoot without them. Government have accordingly authorized the supply of suitable glasses to the men referred to, as an experimental measure to be reported upon hereafter.

Mediterranean Wheat.—The *Michigan Farmer* says:—Mr. J. D. Yerkes informed us that in examining the heads on a field of Mediterranean wheat, the punctures of the insect were very plainly perceptible. The husk, however, of this variety of the wheat plant, seemed to have been so hard that the ovipositor of the midge could not penetrate it, so that this variety has not been hurt. This observation of Mr. Yerkes confirms the opinion heretofore expressed, that the husk or palea was of so firm a texture that it was a protection to the grain from the deposit of the egg of the midge.

Buckwheat Straw.—J. A. Hubbard, writing to the *N. E. Farmer* from a locality in Maine, where this grain is extensively grown, says that buckwheat straw "is injurious to young pigs, and if they lay in it, it will set them crazy, and they will finally die. It is hurtful to hogs and young stock to run through it when green, making their head and ears sore and itch very much."

Deep Tillage.—In 1852 an article went the rounds of the papers, stating that Robert Buist, the well-known accomplished gardener of Philadelphia, had asserted,—"That with proper cultivation, ten acres would yield as much a tilled in the old way; that nothing less tha tons of hay, thirty-five bushels of wheat bushels of corn, and from four to six h bushels of carrots, parsnips and mangel per acre, should satisfy us."—He said, many years since I was favorably im with the benefits of sub-soil plowing, l past season put a climax on all my for perience; land that was sub-soiled wa moist; the crops of a better color and m uriant, so much so, that I have deter double plow ten or more acres of my la year."

Horticultural.

Garden Memoranda.

The practical hints contained in our also be applicable during the remainin the month, in regard to keeping dow hoeing and stirring the ground, earth celery, tying up plants, &c. The sowing being over, or nearly so, there is in much to do at present except to give suc attention to crops and plants as is o required, the details of which we have given.

The Flower Garden.—Green Hou will need daily care at this season. I be well watered every evening in dry Geraniums that have done flowering sho be pruned, in order that the size and sh may be improved. As soon as the heat of the summer is past, which is g by the latter end of this month, or earl next, preparation must be made for repl with fresh compost, and re-potting suc as are intended to be cultivated thr winter in a green-house, light room, o frames.

Those who may have a number of various sized pots, should provide a pots a size larger than the largest in largest plants being shifted into the leaves the next sized pots for the sec plants, and by pursuing this plan o until the whole are done, the smallest be left for such plants as have been p in the course of the summer.

The shifting of plants requires co attention and judgment, as some plan in too large pots, will sustain consid jury: therefore, in such cases, where t roots have not spread around the pot more is necessary than to rub off a lit outside mould, and then to substitute a post for the roots to run in.

Such plants as may have become p and whose roots are matted around the

any cases, bear reducing. If the matted
ts are carefully pared off, and the plants
ted into good fresh compost, they will soon
root, and grow freely; but it will be neces-
to prune off all surplus branches of the
ts previous to re-potting them, and to shade
for a week or ten days.

ieces of tile, or broken pots, should be laid
the aperture at the bottom of the pots, to
le the surplus moisture to drain off, or the
s will sustain injury.

ie flower beds will need attention this month.
er Dahlias and other choice plants in dry
her; cut down all decayed flower stalks, as
as the seed is gathered, and pull up annuals
ey cease to flower.

II.—All the commoner kinds of green
e plants will grow well in a soil composed
o parts loam, or what is commonly called
gin soil" from an old common, mixed with
part well rotted manure, and one part of
sand, the whole to be thoroughly mixed
ncorporated together, and sifted through a
nch mesh riddle before using.

RAWBERRIES.—The following useful hints
trawberry culture we take from Shenck's
deners' Text Book":

'our things appear to be essential to suc-
n the cultivation of the strawberry, viz.: a
selection of varieties,—a favorable situa-
careful culture,—and a renewal of the
nce in every three or four years. The
apart from the formation of the bed, is
ifling, and is, indeed, often over-estimated:
the necessary annual outlay, is of small
it in a garden of common dimensions. A
ate crop yields a rich reward for the ex-
incurred. When we see our own vines
'y covered with fruit, tempting to the eye,
easant to the taste, we cannot but inquire
happens, that a farmer, or a *gardener*,
person in the country having a rod of
ground, can be without a plantation of
erries.

situation of the bed ought always to be
way from close fences, trees and build-
that the plants may not suffer from the
f light and air. To have a succession of
one bed may lie towards the south, and a
have an inclination to the north. Where
is not naturally of a suitable character,
ld be brought into that condition before
nts are set out. A good loam, light
than heavy, deep, rich, and somewhat
s undoubtedly to be preferred. It needs
iable so as to be easily worked, and yet
ight as to suffer from drought. It would
at a slight degree of moisture is indis-
e to the full perfection of the fruit.
r, the soil should be both deep and rich,
roots may have plenty of room in which
nd themselves, together with a good
f food suited to their wants. To pre-
e ground for a plantation in the best
manner, we would recommend trenching and manuring it several months previously, taking care that the manure shall be well incorporated. Instead of using common stable dung alone, we should rather apply it in connection with leaves, decayed wood, ashes, plaster, salt, or bone-dust. It sometimes happens that too large a supply of dung, causes a rank growth of vines, without a corresponding return of berries.

After the ground has been properly dug,—all the lumps being pulverized, and the surface raked smooth,—rows are to be struck out at distances of two, or two and a half, feet from each other. In our own garden, we should be willing to allow even more room, being under the impression that there is such a thing as crowding the plants, and thereby injuring their productive powers. The months of April and May, or August and September, are the proper seasons of the year for making new plantations. The first season is undoubtedly the best, because the newly-transplanted vines then require less attention than they would in the heat of summer, and the first fair crop will be a twelvemonth earlier.

The best plants are the young, healthy-looking runners from old stocks. They are to be set out at distances of twelve or eighteen inches in the rows. A hole is made by means of a small dibble, and before the root is inserted, it should be dipped in mud, a semi-fluid mass of dung and water, or even simple water, in order that the freshly-stirred earth may adhere to the fibres.

Every root ought to be set firmly, and when the operation is not followed by a shower, the ground ought to be well watered. If the season be autumn, the new beds require not a little attention, and the liberal application of water will be frequently necessary, until the roots become established. Whenever practicable, transplanting ought to be performed in dull, damp weather.

It will not be long before runners show themselves, and instead of being allowed to roam over the bed at will, they must be trained along the rows so as to form parallel lines of plants, with good, wide paths between them. This system of culture is preferable to every other for many reasons, and principally on account of its being more convenient of access for weeding and gathering the fruit. Light and air are freely admitted to the leaves, while the roots have a large foraging ground beneath the unoccupied paths. The hoe must be often used, as well to keep the surface light and porous, as to eradicate the young weeds before they have taken possession. A full grown weed in a strawberry bed, speaks but little in praise of the owner's industry, or skill in gardening. In severe hot weather, the plants ought to be examined every day, to ascertain whether they be suffering from the want of moisture. This is particularly necessary where the situation is dry and in a warm exposure. But, in most cases, frequent stirring of the soil will attract sufficient moisture from the atmosphere. Mulching, or covering the surface with straw or leaves, is to be recommended, as

checking evaporation, and preventing the parching effects of drought.

In the beginning of winter, a covering of leaves, straw or any light litter should be given, to prevent injury from frost. When the land is not quite rich enough, this is a good time to dig a little compost into the paths, to keep the roots warm through the winter, and cause them to start thriftily in the spring.

As soon as the weather becomes settled in March or April, the covering is to be removed, and the ground ought to be frequently stirred, until the flowers open. At this time, clean straw, sea-weed, or coarse hay, can be spread around the plants, for the purpose of protecting the berries from sand; this also is useful in keeping the soil moist, and, when decayed, it forms an excellent manure. After the blossoms fall, the growing berries ought to be occasionally watered, in case the season prove dry. Throughout the summer and autumn, the runners are to be confined to the rows from which they start, unless new plants are wanted, when they may be permitted to root themselves in the paths. No room should be allowed a weed or a blade of grass. The same course of management is to be pursued annually thereafter.

A strawberry bed cannot be expected to remain in perfection longer than four years, and to ensure a regular supply of fruit, it is advisable to make a new plantation in every second year. There is, however, a plan of renewing the bed at the end of each season, which is simple, and answers a good purpose. The rows are about three feet apart, that the paths may be as wide as the spaces occupied by the plants. After the crop has been gathered, the runners are allowed to strike themselves into the paths, which have been previously enriched by manure when not sufficiently fertile. With a little care, they will cover the ground very regularly. In the latter part of summer, the old plants are to be spaded under, and the spaces which they occupied are now to be used as paths. At the close of the next season, the process is to be repeated, and so henceforth until the land has become tired of the berry, when the plantation may be removed to another part of the garden. It will be observed that the strips of land are every other season at rest, while their principal production, the old vines, are dug under for the benefit of the roots." J. F.

Fruit Growers Society of Western New York—Interesting Discussion.

The June meeting of this Society was held in Buffalo, on the 27th and 28th ult., and much valuable information on the best varieties of fruit, and the most approved methods of cultivation, was elicited.

In the discussion on the cultivation of the strawberry, it was asked, "which are the best six varieties for the market, and the best six for family use, and which the best method of cultivation in each case?"

E. Herendeen, of Macedon, said he could commend only one variety for market, and that was Wilson's Albany. It will produce four as much as most other sorts, and twice as much as any other. It was rather acid, but of fine flavor—and of which the taste never tires—not only produces a good crop, but uniformly large berries; those of the last picking are almost as large as the first. Cultivates in first, setting the plants eighteen inches apart in the rows, and the rows four feet asunder. Mulches with straw or cut grass.

Professor Coppock, of Buffalo, could not agree with Mr. H. He did not find the Wilson more prolific than some others, and that it was not fit to eat, being altogether too acid. The ladies say it is not good for preserving. The Victoria is a good bearer. Triomphe de Gand not productive. Scott's Seedling is equal to Wilson in productiveness, and can be cultivated well. Genesee is a good bearer, but rather poor for market. Would recommend for family use Scott's Seedling, Genesee and Longworth's Prolific.

Mr. Moody, of Lockport, said we needed better berries than the Wilson. Jenny Lind is early, large, productive and fine fruit. The Hudson New Pine is the finest flavored of all. Peabody is a very good strawberry. Triomphe de Gand bears well when grown in hills, but must not be allowed to run into a mass. Scott's Seedling considered the meanest berry in cultivation. Recommended as the best six, Jenny Lind, Triomphe de Gand, Hooker, Trollope's Victoria, Monroe's Scarlet, and Wilson's Albany.

Professor Coppock said that in preparing for strawberries he plowed and subsoiled his land and placed it in as good condition as for a crop of corn or wheat. He set his plants about eighteen inches apart. He mulched with tan-bark, buckwheat straw, &c., but never saw-dust. Once in about five years he broke up the beds and made others. The extraordinary matter thrown off by the old plants made it necessary to form new beds.

F. Glen, of Rochester, said there was a variety which had not been mentioned, which he thought would produce more berries in a row than any other: this was the Crimson Cone. From a bed containing sixteen square rods, picked, last season, 1,100 quarts, and this year 1,000. Wilson's Albany the second year almost worthless, but the first it was very productive. He considered Triomphe de Gand the best of all. Large Early Scarlet was a good sort, and in three years would yield more than the Wilson.

James Vick, of Rochester, coincided with Glen as to the productiveness of the Cone. A few years since this was the only variety grown for the New York market; several of the growers in Jersey had told him that it was the only variety from which

make money. He called attention to the stage of growing strawberries in hills, a when kept shorn of its runners becomes large by side shoots from the crown, throw- numerous fruit stalks.

arles Downing of Newburgh, being asked press his opinion on the question, said he led Wilson's Albany as the most produc- ariety, but had a great dislike to its flavor ould not grow it. Jenny Lind is a fine sort. Triomphe de Gand was his favorite. ope's Victoria was of a good quality but roductive: Hooker does not do well. 's Seedling is a fair bearer but of poor . He was cultivating a new kind from la called Ladies' Pine, in flavor like Burr's Pine and moderately productive.

Beadle of St. Catherines, C. W., knew g about cultivating for market, and could ive his experience in cultivating for family His preferences were the large Early t and Hovey's seedling which does well ves a few large berries on each truss, the ing of moderate size. Thinks Burr's Pine is the best strawberry and tolerably tive. The rival of it in flavor is Triomphe nd. Hooker bears large berries, and fine Some say Hooker is tender. In Canada awberries are tender, but when covered aves are perfectly safe.

CHERRIES.

are the best six varieties of cherry for ily use, and also for market purposes?

Downing was called upon for his opinion, he remarked that Coe's Transparent was cellent Cherry for family use. Belle de was better, but a poor bearer. May as one of the best for the market. He also recommend Great Bigarreau and d's Mary, and would speak well of Gov. but it is so liable to rot. Early Rich- s a very useful cherry. Early Prolific is early cherry, and a great bearer. Ripens lle d'Orleans.

Coppock recommended for market Black an, Yellow Spanish, Elton, May Duke, ransparent, and Black Eagle.

Bissell, of Rochester, thought well of rly Purple Guigue, Coe's Transparent, lle de Choisy.

Coody had only one Early Purple Gui- e. Had kept an account of the fruit sold the last three years, and it amounted to he birds eat all of the Bauman's May, not trouble Early Purple much. Black n does first rate, but Coe's Transparent ch better quality. Belle de Choisy is t of the Cherries. His children never nything else when it was ripe. Knight's lack is a good sort.

Hoag wished to call attention to an old glected variety, the American Black It was always fair and perfect—never and was selected by visitors, and pur- chased, in preference to any other Black Cherry he cultivated. It bears remarkably well every season. Had a tree 40 years old now giving large crops. An inferior sort had been sold un- der this name.

Mr. Frost, of Rochester, remarked that Coe's Transparent, at the Genessee Valley Horticul- tural Society, took the first premium for the best quart. Mr. F. thought that Belle de Choisy was one of our best desert cherries, and when the tree obtains age it bears well: but as for cultivation, Mr. Frost spoke very strongly in favor of trees on the Mahaleb stock. Dwarfed in this way they are far hardier than as stand- ards, and are particularly desirable in the vicis- situdes of our climate at the West. The tree is more bushy and in form much preferable, while the fruit can be much easier gathered, and is actually much larger and finer than on standards. Besides this the trees bear fruit earlier, and for small gardens the Duke and Morello varieties are particularly desirable on Mahaleb stock.

Mr. Townsend would mention one variety not generally known, but much esteemed in the neighbourhood of Lockport—the Townsend Cherry, a seedling raised by the speaker. It is very early—had picked it the 7th of June. Al- ways produces a crop. Liked the Black Tarta- rian, Elton, May Duke, Brockport Bigarreau, Downer's Late. Purple Guigue was always de- stroyed by birds, and Belle de Choisy never pro- duces a crop.

Mr. Glen recommended Belle de Orleans, Gov. Wood, Coe's Transparent, May Duke, Early Richmond, Downer's Late. To this six he would add one or two others, to fill up the season.

Mr. Downing thought well of Vail's August Duke, one of the most promising of the new Cherries Something like May Duke, but sev- eral weeks earlier. A seedling of Mr. Vail of Troy.

Mr. Beadle lived in a cold country, (Canada) where the Heart and Bigarreau Cherries did not succeed, but where the Dukes and Morellos flourished very well. Could grow May Duke. E. Richmond and Reine Hortense, and a few others. Would like a list of Dukes and Morel- los that it is best to plant.

Mr. Downing recommended, in addition to those mentioned by Mr. B., Late Duke, Royal Duke, Plumstone Morello, and Vail's August Duke.

Mr. Hoag recommended as the best six, Early Purple, Gov. Wood, Townsend's Seedling, Black Tartarian, Rockport Bigarreau, Old American Black Heart.

Mr. Townsend said cherries should be grown on land of only moderate fertility, and it is not best to cultivate too highly. Trees grown on Mahaleb stocks are hardier than on Mazzard, and much less liable to be injured in winter. They commence bearing at three years old. The size and quality of the fruit was much better on Mahaleb stock.

Mr. DOWNING thought the Mahaleb one of the best stocks that could be used.

RASPBERRIES.

What are the best varieties for market, and which the best for family use,—hardiness and productiveness considered?

CHAS. DOWNING recommended Brinckle's Orange for family use; for market, the Hudson River Antwerp.

Mr. TOWNSEND considered Brinckle's Orange too tender.

Mr. DOWNING considered it quite hardy, but all Raspberries should be laid down in the winter. This is the practice with all growers for market around New York.

Mr. VICK said he had received letters from the West stating that the Orange was the hardiest of all the cultivated Raspberries.

Mr. FISH said all the varieties he cultivated killed back, except the Black Raspberry, which was the only one he considered worthy of cultivation.

Mr. GLEN wished to add the Fastolf to those recommended by Mr. Downing.

Mr. DOWNING said it was good, but would not bear carriage, being too soft and tender.

Mr. HOAG had a good number of varieties, and they were all killed back, the Orange with the rest, but if it receives the slightest protection from the winds, even by the trees, it is safe.

The Black Cap was spoken well of by several members and recommended.

Mr. FROST had grown several of the Everbearing varieties, but had not given them much attention; perhaps, not as much as they deserved. The Catawissa, he thought, the best. It gave a good crop in the summer, and again in the fall, continuing until October.

Mr. DOWNING inquired if the berries were perfect; with him they were very imperfect.

Mr. FROST said some imperfect berries were produced, but it gives a good crop of perfect fruit. To get a good crop, the old canes must be cut out, and the fruit obtained from the present year's shoots.

H. T. BROOKS knew nothing of the *ever*-bearing sorts, but he had a *never*-bearing variety.

Mr. GLENN thought well of the Doolittle Black Raspberry. Cultivated between two and three acres. They will sell well and ship any distance. They are larger, and not quite so seedy as the common Black Cap.

Mr. PECK, of Bloomfield, grew Black Cap from the woods, and could not tell the fruit from Doolittle's Improved.

Mr. DOWNING called attention to Vice-President French—a week later than most of the Raspberries. A fine large berry; plant vigorous and productive.

CURRANTS.

Which are the best varieties, both for market and family use?

Mr. MOODY thought most of the White Grape Currant. It was large, and not so acid as others, and hangs on the bushes well. Had last season until the first of October. The C Currant is about the same size, and an enor bearer.

Mr. DOWNING said there was but very difference in the fruit between White Grap White Dutch. There was considerable diffe in the leaves and habit of the plant. Ther a new currant, said to be twice as large as Dutch. Versailles is a most desirable cu the best of the new ones. The berry is as as Cherry, and the bunches longer.

Mr. FROST said the Versailles was much g and was very popular around Boston. Th ries were large, the bunches long, and the very easily gathered.

GOOSEBERRIES.

Mr. FROST was cultivating, in addition to English sorts, the American Seedling and H ton's Seedling. The American is the mo right in growth, and is considered the best Cincinnati and at some other places.

Mr. DOWNING said the American Seedling known by different names in different local Mr. D. said, in answer to an inquiry, that ing's Seedling was an improvement on H ton's Seedling, a very fair berry, but like things had been over praised.

Mr. HOAG thought pretty well of the Mc Seedling. It is very productive, and m good vigorous growth, and never mildews.

Some discussion followed as to the best of preventing mildew of the European va but nothing new was elicited.

PEARS.

What variety or varieties of dwarf p it best to plant in an orchard of acres; at what distance should the be planted, and what is the best culture?

Mr. FISH would plant Duchesse d'Ango It is a good grower, bears early enou being a large, showy fruit, always comm high price in the market, but would no one variety exclusively. Sometimes c fails, and in such a case it is not best to total failure. No farmer likes to grow c exclusively, on this account. Louise B Jersey does exceedingly well, and with Virgalieu did not crack. Would set o numbers of Duchesse d'Angouleme, Vi Louise Bonne de Jersey, with some B double worked.

Mr. TOWNSEND found that trees we subject to the blight just as they were into bearing, and high culture he tho vourable to the disease. He had suffe severely—lost hundreds of trees. Noti when a vigorous growth was made c trees were subject to attacks from bl next. Had cultivated between the ro proposed to let them go in turf for Thought Louise Bonne de Jersey the

ake money of. After this, Virgalieu, el, Beurre Superfin, Bartlett, (double ed,) Tyson and Rostiezer. Would double Bartlett on White Doyenne.

S. MANLEY, of Buffalo, said they could not a good Virgalieu in that section, neither standard nor a dwarf. For early pears d plant Rostiezer and Tyson. Liked Louise e de Jersey, and would pick off fruit so it be not allowed to bear until five years ed. Duchesse d'Angouleme should be d in the same way. There is not a pear rd west of Boston cultivated too highly.

. MOODY spoke highly of the Lawrence as ter pear. It ripened without any trouble, like apples in the cellar, and was about as as the Virgalieu.

. TOWNSEND remarked that while he had n of the blight which had really troubled he did not wish to carry the idea that he iscouraged, for with all his losses his balsheet exhibited a balance on the right side. btained a profit of from $300 to $500 per o land on which he cultivated dwarf pears. siness was more profitable than dwarf pear e.

e President exhibited the measurement of ear trees eight years planted, one grown in since set out, the other having received or- culture, the trunk of the former being nches and three-eighths in circumference, e latter two feet nine inches.

er some remarks on grape growing, and the e of a resolution of sympathy with the ent of the Society in his affliction, the Soadjourned to meet in Rochester in Septemxt, at the call of the Council.

Veterinary.

TAKE IN TREATMENT OF HORSES.—A corident of the *Country Gentleman* thus alo an error frequently committed in driving : Among the mistakes in the driving and l management of horses which have come our observation, one has often surprised account of its inconsistency with what o us very plain and obvious principles. fer to driving quick—as quick as at any ime during a journey—immediately upon , when the horse or horses are often as feeding and watering can make. Even horse has been fed and watered an hour before starting upon a journey or drive ral miles, it is proper to drive slowly for t mile or two; but when the feeding and g have been more recent, the propriety g along at a jog or easy pace is still rgent. Colic, founder, broken wind, have them, resulted from too rapid driving horse was full. A friend of ours, a an, who had occasion sometimes to vio- is dictate of good management in his reach some case of great urgency, once informed us that when he drove at a rapid rate *immediately* after feeding, his horse would scour almost invariably, and seem to suffer considerably.

SADDLE HORSES.—The best height for horses intended as hacks of the first class, is about fifteen hands. Tall horses are not so good for hacks as those of lower stature, as they do not move with so much ease and lightness, wearing their legs more, causing more fatigue to their riders. The majority of tall horses are now-a-days tall only because they have long legs, which are very objectionable, as they never wear well, and are mostly allied with a very shallow body. These horses may do well enough when a showy appearance is the only object in view. —*London Review.*

DIARRHŒA IN LAMBS.—Diarrhœa or scouring in young lambs often arises from coagulation of milk in the stomach, and is then called the white skit; the treatment for which consists in giving an alkali, such as magnesia, twice a day in gruel, followed by three or four draughts of Epsom salts and ginger. If it is from simple relaxation of bowels produced by fresh grass, a dose of the following cordial will be useful:—Prepared chalk 1 oz.; powdered ginger 2 drachms; powdered opium ½ drachm; peppermint water ½ pint. Dose—one or two tablespoonfuls twice a day. Soft American linseed-cake may be given as food.—*American paper.*

Domestic.

NEW REMEDY FOR NEURALGIA.—The *Journal de Chemie Medicale* contains an account of the discovery of a new and powerful sedative in neuralgia, just discovered by Dr. Field. The substance used is nitrate of oxyd and glycile, and is obtained by treating glycerine at a low temperature with sulphuric or nitric acid. One drop mixed with 99 drops of spirits of wine, constitutes the first dilution. A case of neuralgia in an old lady, which had resisted every known remedy, was completely cured by this new agent.

Recipes.

From the American Agriculturist.

TO SETTLE COFFEE.—J. Armstrong, Columbia County, Wis., recommends the following method: Brown the coffee in the usual manner, and when nearly cool, break an egg upon it, and stir it well, to have each kernel coated. The coffee should not be warm enough to cook the egg. Use one egg to a pound of coffee; let it dry well before grinding. When boiled for use it will settle without further trouble.

BREAD CAKE.—To one cup of light bread sponge, add one egg, one cup of flour, half a cup of butter, half a teaspoonful of saleratus, spice to your taste; stir well together, and put immediately in the oven; bake as for bread.

Pork Apple Pie, contributed by "L." Line a deep plate with pie crust, pare and slice apples enough to nearly fill it, sweeten and spice to the taste. Cut slices of pork very thin: lay them over the apple, and cover with the top crust. Bake two hours. [Rather greasy to digest well.]

Mrs. E. Gilbert, Lenawee Co., Mich., contributes the following three:

Cheap Sponge Cake.—One cup white sugar, two tablespoonsful butter, one cup sweet milk, 1 teaspoonful cream tartar, ½ teaspoonful soda. A little less than a pint of flour. 1 egg and nutmeg to taste.

Cookies—One cup butter, two cups sugar, one cup sweet milk, half teaspoonful soda, nutmeg or caraway, for spice: mix with flour until quite stiff, roll thin and bake quick. These I think superior to those made with eggs. They improve with age if kept in a covered stone jar.

A Good Plain Gingerbread—One coffee cup thick cream, one cup molasses, one teaspoonful soda, ginger to taste, a spoonful of salt. Stir quite thick with flour, and bake in square tins.

To Keep Hams in Summer.—Contributed to the *Agriculturist*. Cut it in slices and trim off the rind and outside: fry it about half as much as you would for the table. Pack it tightly in jars: pour over it the fat that fries out, and enough lard to cover it: close the jar tight, set in a cool place, and it will keep fresh all summer.

Baked Indian Pudding—Contributed to the *Agriculturist* by Mrs. L. Bright, Isabel Co., Mich. Scald ten tablespoonfuls of Indian meal in three pints of sweet milk: add an ounce of butter, and sugar or molasses to sweeten to the taste. Bake two or three hours.

Miscellaneous.

Steam-Boat Racing.—Sir Charles Lyell, when in the United States, received the following advice from a friend:—"When you are racing with an opposition steam-boat, or chasing her, and the other passengers are cheering the captain, who is sitting on the safety-valve to keep it down with his weight, go as far as you can from the engine, and lose no time, especially if you hear the captain exclaim, 'Fire up, boys; put on the resin!' Should a servant call out, 'Those gentlemen who have not paid their passage will please to go to the ladies' cabin!' obey the summons without a moment's delay, for then an explosion may be apprehended. 'Why to the ladies' cabin?' said I. 'Because it is the safe end of the boat, and they are getting anxious for the personal security of those who have not yet paid their dollars, being, of course indifferent about the rest. Therefore never pay in advance; for should you fall overboard during a race, and the watch cries out to the captain, 'A passenger overboard,' he will ask, 'Has he paid his passage?' and if he receives an answer in the affirmative, he will out, 'Go ahead!'"

Night Air.—Why should man be so tenacious at the admission of night air into any of apartments? It is Nature's ever-flowing current, and never carries the destroying anger it. See how soundly the delicate little and tender robin sleep under its full and immediate influence, and how fresh, and vigorous and joyous they rise amid the surrounding drops of the morning. Although exposed night long to the air of heaven, their lungs never out of order, and this we know by daily repetition of their song.—*Waterton.*

Amusement.—The natural and only safe of enjoying amusements is in common. When one sex enjoy their amusements alone they sure to run into excess. The division of human family into man, woman, and child ther, mother, brother, and sister, is the conservative principle of society; they act re-act upon each other like the different sea of the earth. Each age and each sex has peculiar characteristics, that serve to mo and check certain mischievous tendencies in other sex, and in others of different ages. one sex to attempt to amuse themselves a ably and innocently alone, is like trying to music on a one-stringed instrument.

Proverbs worth Preserving.—Hasty ple drink the wine of life scalding hot. He the only master who takes his servants wi a character. A sour-faced wife fills the ta Content's the mother of good digestion. W pride and poverty marry together, their chi are want and crime. Where hard work ten, idleness kills a hundred men. Folly pride walk side by side. He that bor binds himself with a neighbour's rope. He too good for good advice, is too good f neighbour's company. Friends and photog never flatter. Wisdom's always at hom those who call. The firmest friends ask fewest favours.

Good Advice.—A young Irishman (plac his friends as student at a veterinary co being in company with some of his colle was asked, "If a broken-winded horse brought to him for cure, what he would adv After considering for a moment, "By the ers," said he, "I should advise the owner t as soon as possible."

Ten parts of tin combined with one hu of copper, form bronze, and is the usual position for statues. Common bell-me composed of three parts of copper and o tin. For very small bells, a small port zinc improves the tone. Speculum met telescopes is composed of equal parts of c copper. It is white, very hard and close grain, and receives an exquisite polish.

The fibre of a single silk cocoon is 1,5 in length.

Transactions.

COUNTY AND TOWNSHIP SOCIETIES.

Continued from page 382.

RRAN.—Sixty-eight members; amount bscriptions, $70.50; balance from 1858, 73; share of public grant, $71; total ipts, $168.23. Amount paid in pre- ms, $66.34; expenses, $10 47; balance and, $91.42.

ARRICK.—Forty-five members; amount bscriptions, &c., $61.50; balance from ious year, $22.80; share of public grant ; total received, $129.30. Amount paid rizes, $77.25; expen-es, $18.52; bal- in hand, $33.55.

LROSS.—Thirty-five members; amount bscriptions, $40; balance from 1858, 6; Government grant, $45; total re- d, $95.16. Amount paid in premiums, 5; expenses, $13.77; balance in hand, 1.

REENOCK.—Thirty-eight members; nt of subscriptions, $40; amount paid miums, $61.25. The report is imper-

ISLEY.—Forty-two members; amount scriptions, $42; balance from 1858, 8; Legislative grant, $38; total re- , $103.88. Paid in premiums, $69.- expenses, $12.57; balance in hand, 1.

'GEN.—Forty-three members; amount scription, $43; balance from previous $118.62; total receipts, $161.62. ut paid in premiums, $64.50; re- to County Society, $70; expenses, ; balance in hand, $6.82.

CARLETON.

NTY SOCIETY.—Amount of subscrip- $357; balance from previous year, ; deposited by Township Societies, received for seeds sold, $11.20; sun- $7.50; Legislative grant, $578.57; eceipts, $1220.44. Amount paid ip Societies, $659.14; paid in pre- $398; copies of *Agriculturist*, $10; s and sundries, $153.30.

ers, 1860.—President, Dr. Hunter, ie; Vice-Presidents, Jno. Robertson . T. Aylen, Nepean; Secretary and er, Jno. G Bell, Ottawa.

Extracts from Report.

e Annual Exhibition in the City of n October, there was less live stock shown than usual, but what there was was of superior quality. Of produce, several parcels of wheat were very good—63 to 63½ lbs. per bushel. Of other grains the show was much the same as usual. Roots, turnips, and beets, were very superior, and exceeded anything heretofore seen in this place. There was a good display of dairy produce, and of excellent quality

For home made cloth the samples were very good. Blankets, flannels and checked flannels were very superior.

The crop this year has been much damaged by frost and drought. We had frost every month of the season. In June, about 14 nights frosty—July, cold and dry to the 25th; August, generally cool and dry,—thermometer often at and below 50°. September 2nd and 3rd, frost; 14th frost and snow; 15th and 16th, frost killed corn and potatoes, and 28th, frosty. Upon the whole, it was the most untoward season which we have had since 1836. Wheat is not equal to last two years, averaging 6 bushels less per acre. Hay is not over half an average. Oats under an average. Peas, in some cases, very poor. Corn, the frost in September killed it altogether. Potatoes are a fair crop, of good quality. Turnips and beets are very good.

Peruvian guano was tried with advantage on potatoes, corn and turnips. 3 cwt. per acre on Swedish turnips gave 800 bushels of 60 lbs. American guano was also tried, but was not near equal to the Peruvian. Fall wheat being much winter killed, a field was ploughed and sown with spring wheat, top-dressed, with one cwt. Peruvian guano per acre, with good effect. The soil, sandy and very loose, was rolled with a Croskill roller, with good effect.

Some improvements have been made in draining. One farmer has laid over 1200 rods with sawed hemlock, at about 1s. 10d. per rod. Some new implements have been used this year, in particular, a harrow, got up by Blesdell & Co., Victoria Foundry. For harrowing lea sod it is superior to anything used here, as it does not drag the furrow, but cuts up without breaking. Cost about 36s.; weight 180 lbs. A Croskill rolller has been made by T. M. Blasdell, which does good service. It is about 36 cwt., and costs £40. Your directors would call attention to the importance of giving encouragement to some one to make draining tiles.

Foreign manures are now brought here while a large amount of bones is wasted. It is said that bones are collected in Ottawa, and sent to a great distance to be ground. Some of these bones are brought back to Ottawa again, to be used as manure Would it not be well for our Society to try to get some one about Ottawa to erect a bone mill here. All the manures we can get are needed

TOWNSHIP BRANCHES.

HUNTLY.—Amount of subscriptions, $80; share of public grant, $119; amount paid in premiums, $190 07; expenses, $9.

MARCH.—Twenty-eight members; amount of subscriptions, $80; share of public grant, $119.25; total receipts, $201.25; amount paid in premiums and expenses, $249; balance due Treasurer, $47.75.

NORTH GOWER AND MARLBOROUGH.—Twenty-seven members; amount of subscriptions, $52; Legislative grant, $84; balance from 1858, $24.33; total receipts, $160.33. Paid in premiums, $105.75; paid county society, $10; expenses, $12.75; balance in Treasurer's hands, $31.83.

RICHMOND AND GOULBURN.—Forty-one members; amount of subscriptions, $48; balance from previous year, $47.58; Government grant, $54.62; total received, $150.20. Amount paid in premiums, $126.44; copies of *Agriculturist*, $10; expenses, $9.05; balance in hand, $4.71.

DUNDAS.

COUNTY SOCIETY.—One hundred and thirty-seven members; subscriptions, $145; balance from 1858, $71 67; deposited by township societies, $106; admission fees at exhibition, $105.35; public grant, $385.18; amount refunded by Mountain Society, $18.30; total amount received, $831.50. Amount paid township societies, $296.80; premiums, $326.12½; expenses, $103.85; balance in Treasurer's hands, $119.72½.

Officers, 1860—President, George Doran, Iroquois; Secretary and Treasurer, Jno S. Ross, Iroquois.

Extract from Report.

The directors of the Dundas County Agricultural Society, learn with great satisfaction, the interest manifested by the Board of Agriculture for Upper Canada in eliciting full and accurate reports from the various counties of Upper Canada.

A correct and reliable description of each, their history, cababilities and progress, a as a consequence, their comparative inde ments to immigrants and others, who have made up their minds to engage in cultural pursuits, is a desideratum wh even the elaborate Directory of Canada, the copious and pains taking census of 18 2 have not supplied A great deal relati to the several counties of Canada may deed be gleaned from these sources; bu is a work of time and difficulty to separ them from the voluminous mass of infor tion respecting other parts of the Provi with which they are associated.

We have long desired to see a full re of each county, complete in itself, and think we cannot better respond to the pressed wish of the Board of Agricult than by collecting from all reliable sour all that is known of our county, and add from local information many matters of terest not to be found in the works refer to. And the belief that such a report w be particularly interesting to the inhabit of this county, has induced us to enter fu upon many topics, which would not ne sarily have been embraced in a strictly cultural report.

We have attempted to sketch the his of the county from its first settlement, to give a brief outline of the origin and gress of our religious and social institut which, a part from the agricultural ma cannot fail to interest at least the resid of the county.

The County of Dundas, one of the U Counties of Stormont, Dundas and G garry, formerly known as the Old Ea District of Upper Canada, is bounded b River St. Lawrence on the south; on east by the County of Stormont; on the by the Counties of Russell and Carl and on the west by the County of Gren

It thus lies nearly midway between treal and Kingston, and a line draw right angles to the River, would intersec Ottawa River, at or very near the C Ottawa, the future capital of Canad distance between these two points about 45 miles.

The County embraces an area of 250,000 acres, whereof in 1858, 2 acres were assessed at a value of $2,00 The population of the County in 18 date of last census, was 13,865, of 10,478 were natives of Canada, 2 Ireland, 500 of the United States,

and, 252 of England, 54 Indians, and om the Lower Province and other parts. ge increase has been made to the popu- since '52. We place it now at 16,- the increase by immigration has been y from the countries above enumerated, erhaps nearly in the same ratio from

1832, the population was 3,022, and sessed value £51,000; thus in 28 the population has increased fourfold, e value of the County tenfold. It has ed its population in 14 years, Upper ain the meantime doubling in 10 years, n 1841 and 1851. But the enor- nflux of emigrants into Upper Canada, that period as somewhat above the e ratio of increase, and it is well known he great tide of emigration flowed an unbroken stream till it reached o or Hamilton, very few indeed land- these parts, beyond those who hap- to have relations in the County. Our increase in population therefore com- ery favourably with the rest of the ce.

TY HISTORY.—The proclamation of etween Britain and America, in 1783, ed at least a partial fulfilment of the ey, that "Men shall beat their swords loughshares, and their spears into hooks." The brave and loyal sub- ho during the fierce revolutionary e remained faithful in their allegiance British Crown, being no longer re- to fight their country's battles, were tined in a very different way to add country's greatness, and it was an- that liberal grants of land in Can- ld be freely given, to the now dis- oldiers.

oclamation was now issued that all hed to continue their allegiance to should rendezvous at certain points rontier: these were Sacket's Har- swego and Niagara. Of those who entually to Dundas, a part assembled ra, and the rest at Oswego. They originally from the fertile valley of awk River, in the then Province of rk. Those who settled in Williams- ear to have met at the rendezvous ra, and were thence conveyed by sh Government to Carlton Island, Kingston, where they spent the first tents and huts provided for them. re about 80 families altogether, who during this time were fed and clothed by Government. The reason of their detention here was, that the County of Dundas upon the St. Lawrence was being surveyed for their occupation, and they there remained until that survey was completed.

They landed in Dundas on the 26th of July, 1784, they were chiefly, if not altogether disbanded soldiers of Sir John Johnston's regiment, composed chiefly of Germans. 50 families were Lutherans, and the remainder Presbyterians, and were henceforth known by the name of United Empire Loyalists, subsequently abbreviated into U. E's, and thus was formed the nucleus of a mighty colony, which in after days acquired the illustrious name of the "Brightest Jewel in the Imperial Diadem."

They drew their land in the following manner. Every man capable of bearing arms was entitled to assume the name of a U. E. Loyalist. Some of them indeed were of a tender age. The late Colonel Crysler, then a drummer in the regiment, was in his 15th year, but was placed upon an equal footing with his father, and at a distant day each of his numerous sons and daughters ranked as children of the U. E.

Each soldier was entitled to draw 100 acres in front, and 200 in the rear; this was the soldier's bounty. If married and with a family, or if at any future time married, he was entitled to 50 acres for his wife and 50 for every child; this was his family land. Besides all this, each son and daughter on coming of age, or at marriage, was entitled to a further grant of 200 acres each. These last resulted in the greater part of Mountain and Winchester being drawn by children of U. E. Loyalists.

As they became of age, each repaired to Cornwall, and presented a petition to the Court of Quarter Sessions, setting forth their right, and having properly identified themselves and complied with the necessary forms, the Crown Agent was authorized to grant them a deed for 200 acres; the expense incurred amounting to about $2. Settlers continued to drop in from the States from 1784 to 1798. All were placed upon an equal footing. All who preferred British rule to that of the Republic, were designated U. E's, and entitled to all the privileges attached to the name.

In addition to the land as above described, they were provided with food and clothes for three years, or until they were able to pro-

vide these for themselves, seed to sow on their clearances and such implements of husbandry as were required: each received an axe, a hoe and a spade. A plough and one cow were allotted to two families; a whipsaw and a cross-cut to every fourth family; and even boats were provided for their use and placed at convenient points of the river. These were of little use to them for a time, as the first year they had no grists to take to mill, and the long Sault Rapids lying between them and Cornwall, whence they received their rations, it was found to be a very difficult matter to bring them by water. In many cases the settler went thither in the fall or in the winter and dragged up on the ice by the edge of the river as much as he could draw on a hand sled, a distance of 25 miles; and we are even credibly told of one who in a similar manner went to Montreal and returned dragging behind him an iron pot wherein to cook his potatoes. At this time they had the choice of but two mills, they were literally placed between two extremes, Gananoque above or the Cascades below, equidistant about 60 miles. They took their wheat in boats and canoes, which the Indians now taught them to make, to one of these places, several parties joining together to take 40 or 50 bushels at a time with 5 or 6 men to work the boat, stemming the rapids of the Coteau and Long Sault, or the Du Plat and Galouse.

These and innumerable other difficulties met and surmounted by the early settler might well put to the blush his less hardy descendant, before he utters the now frequent complaint of *hard times*. There being ample employment on the settler's farm, yet uncleared, for all his sons, there was little inducement for them to think of setting up for themselves. As a matter of consequence the lands they had drawn were of little value to them. In the meantime U. E. rights became a staple article of commerce and were readily bought up by speculators, almost as fast as they came into the hands of the rising generation. A portion of what remained were soon resold in payment of taxes by sheriff's sale, and these too became the property of land jobbers.

Many of the lots thus drawn were never seen by the parties who drew them and their comparative value was determined rather by their distance from the river than by their intrinsic quality, so that lands in Winchester which in a very few years were to bring $20 an acre were considered worthless, while lots even more favourably situated were sold if not for an old song, at least for a trifling dress, worth perhaps $4 or $5. The usual price of fair lots was from $25 to $30, and even as high as $50 per 200 acres. At this these would be 15 cents an acre. These were sold to settlers as they gradually came in from Britain and the States at from two to four dollars per acre, yielding a clear profit to the speculator of 1000 per cent for his investment, in comparison with which the exorbitant interest of modern days sinks into insignificance.

At this time there was a great deal of valuable timber in the county. Huge pine trees were cut for ship masts. A notable one is still often spoken of by many who saw it which, having broke in falling was cut off 70 feet; at 35 feet from the butt it measured 47 inches in diameter and was computed to contain 1058 cubic feet. It was dragged from the woods by 16 pair of horses and sold in Quebec as a bolt sprit for $90.

Of white oak, averaging when dressed from 45 to 65 feet of the best quality, there was an abundance, which found a ready market at from 2s. 6d. to 3s. per foot. What was not suitable for timber was made into stave blocks.

At a later period large quantities of elm and ash were sent to market from this county. white beach and maple were piled up in heaps and burned, and the ashes carefully gathered and sold to be made into potash.

The first operation of the new settler was to erect him a shanty. Each with his axe on his shoulder turned out to help the other, hence probably the origin of making bees. In a short time every one in the little community was provided with a snug log cabin, roofed over with hollow logs split in two, and an inverted layer covering the joint; the spaces between the logs was chinked, and plastered with mud: the cross-cut saw was produced and a door and small window cut out, and an ample hearth rudely built with stones completed the shanty, strangely contrasting with the convenient appliances and comforts of modern days.

The summer was occupied in clearing the land, and in the fall the wheat was put in by hand. In winter, every available day was in the woods making timber and preparing for another fallow. The winters were long, cold, and steady, and the wheat seldom saw the light of day till

d of April. The weather then setting in arm, the dormant fields of wheat early assumed a healthy and luxuriant vegetation. Thistles and burdock, the natural result of slovenly farming, were alike unknown, and either fly nor rust in these good old days were there, to blight the hopes of the primitive farmer. The virgin soil yielded abundantly her increase. Ere long there was abundance in the land for man and beast, and with food and raiment the settler was content.

CHARACTER OF THE EARLY SETTLER — Here was that in the character of the early settler that commands the admiration and respect of all who ever were brought into contact with them. Naturally of a hardy and robust constitution they were neither appalled by dangers nor difficulties, but manfully looked them in the face and surmounted them all. Amiable in their manners, they were frugal, simple and regular in their habits—scrupulously honest in their dealings, they were affectionate in all their social relations, hospitable to strangers, and faithful in the discharge of every duty.

As for their moral habits and religious character, we are proud to reflect that although without any clergymen of either religious persuasion, the Lutherans and Presbyterians from the beginning lived in good fellowship and peace beside each other, and united in observing the sanctity of the Sabbath, in holding lay reading and in singing hymns.

Most of the early settlers have long ago passed away—a few here and there still remain, living exemplifications of the excellence of character which we have thus imperfectly described.

DAWN OF IMPROVEMENT.—In the year 1803 the first grist mill in the County was built by Messrs. Coons and Shaver in Matilda. It contained but one run of stones and had a small saw mill attached to it. It was situated upon a point of the river about 1 mile west of the present village of Iroquois—the grist mill never worked well and was soon abandoned. The little grist mill was however a successful—would grind 100 bushels per day and turned out better flour than many of the mills of the present day.

Soon after this, another mill, upon what would then considered a magnificent scale, was erected by John Monroe. This had 3 or 4 pairs of stones and a gang of saws and worked profitably for 10 years when it unfortunately took fire and burned to the water edge. This was immediately replaced by another, but this time with only one run of stones. It was cheaply constructed and in every respect inferior to its predecessor, but stood 35 years, when a large field of ice striking it on the point carried the mill off bodily, or at all events demolished it These several mills were all propelled by the current of the St. Lawrence. A few stores were now added, the first in the neighborhood appears to have been Richard Louck's, a mile below the present limit of Dundas. At this early period the County of Dundas, if it had then the name it now bears, formed part of what was called the Lunenburg District—which extended from Gananoque to the present Province line. The whole extent of coutry where Lancaster now stands, was one unbroken impassable and seemingly interminable swamp.

(To be continued.)

Editorial Notices.

THE EDINBURGH REVIEW, July, 1890. New York: Leonard Scott & Co; Toronto: H. Rowsell. The present number contains an unusual variety of articles—no less than twelve—on the subjects of the most striking interest in the literary and political world. Our readers cannot be too often reminded of the practice of this and the other leading reviews of giving prompt attention to the topics of the day, and by their deliberation and research correcting the hasty impulses of the moment. The mere titles of the principal articles in this number of the Edinburgh are sufficiently attractive, and need no comment from us to indicate their scope or purport. The principal articles are: Chevalier on the probable Fall in the Value of Gold; Latest Geological Discoveries; The Patrimony of St. Peter; Mrs. Grote's Memoir of Ary Scheffer; Prince Dolgoroukow on Russia and Serf Emancipation; Correspondence of Humboldt and Varnhagen von Ense; Cardinal Mai's Edition of the Vatican Codex. Price of one Review $3 a year. Price of the four Reviews, $8, "Blackwood" and the four Reviews, $10.

THE WESTMINSTER REVIEW, JULY, 1860. New York: Leonard Scott & Co; Toronto: H. Rowsell.—Contents: Strikes—Their Tendencies and Remedies; The Mill on the Floss; Rawlinson's Bampton Lectures for 1859; The Post Office Monopoly; Ary Scheffer; The Irish Education Question; Germany—its Strength and Weakness; Thoughts in Aid of Faith; Grievances of Hungarian Catholics; The French Press; Contemporary Literature.

THE FRUIT PRESERVER'S MANUAL—Reviewing the different theories and describing the best methods of preserving green corn and peas by drying, and other fruits and berries by enclosing in jars or cans, with instructions for successfully performing the requisite operations, &c. This little pamphlet is we presume meant chiefly as an advertizing medium for certain kinds of preserving cans, but appears to contain some very useful information. Published by J. Culver, Rochester.

The Michigan State Fair is to be held at Detroit, on Oct. 2nd, 3rd, 4th, and 5th. The Society offers an extensive list of premiums.

IMPROVED BERKSHIRES.—R. L. Denison, Esq., of Dover Court, Toronto, offers for sale 25 Superior Improved Berkshire Pigs.

Markets.

TORONTO MARKETS.

Tuesday, Aug. 14, 1860.

The supplies to-day were, on the whole, tolerably fair, except in wheat, which did not offer as freely as had been anticipated. Of FALL WHEAT two loads of old grain sold—one at $1 23 and the other at $1 25 per bshl. Four or five loads of new wheat realized from $1 10 to $1 21 per bshl. SPRING WHEAT is nominal at from $1 05 to $1 08. OATS—About 500 bshls. offered. Prices are falling, being now from 31 to 33c per bshl. PEAS—250 bshls sold at from 55 to 60c. BARLEY—150 bshls at from 55 to 60c. HAY is worth from $9 to $12 per ton. STRAW—$5 per ton.

NEW YORK MARKETS.

New York, August 14.

FLOUR—receipts, 2,959 brls; market dull and heavy; sales, 8,700 brls at $5 15 to $5 20 for superfine State; $5 25 to $5 35 for extra State; $5 10 to $5 15 for superfine Western; $5 25 to $5 45 for common to medium extra Western; $5 40 to $5 45 for inferior to good shipping brands extra round-hoop Ohio.

CANADIAN FLOUR—dull and drooping; sales 400 brls at $5 to $5 10 for superfine: $5 20 to $7 50 for extra.

RYE FLOUR—steady at $3 40 $4 20.

WHEAT—receipts 57,370 bshls; market dull and drooping; sales 38,000 bshls at $1 23 to $1 26 for new winter red Western; $1 28 for amber Illinois; and $1 30 to $1 35 for new white Western, and $1 50 for white Kentucky,

RYE—quiet and steady.

BARLEY—dull.

CORN—receipts, 52,255 bshls; market & and drooping; sales, 78,000 bshls at 62 to for sound mixed Western; 67c for choice W tern round yellow.

OATS—shade better and more doing at 38 39c for Western and Canadian, and 39 to for State.

PORK—dull; sales 400 brls at $18 50 for mess; $19 18 to $19 25 for new mess.

BUFFALO MARKETS.

Buffalo, August 1

WHEAT—in firm demand, and market ½ to lower; sales 13,000 bshls red Western $1 08½; 5,800 bshls white Indiana at $1 1 4,000 bshls do at $1 12, and 1,400 bshls white.

CANADIAN—at $1 18 to $1 21½.

CORN—market scarcely so firm; sales, 5, bshls this morning at 50c.

OATS—market 1c lower; sales 9,500 bshls morning at 29c.

Nothing doing in other articles.

PROVINCIAL EXHIBITION.

The Provincial Exhibition will be held Hamilton on the

18th, 19th, 20th & 21st September, 1

For Particulars see Bills and Prize L which may be obtained of Secretaries of A cultural Societies and Mechanics' Insti throughout the Province.

HUGH C. THOMSON, Sec. Bd. of.

Board of Agriculture Office, Toronto, Aug. 15th, 1860.

AYRSHIRE CATTLE—Patrick R. Wright, Cobourg, C. W., breeder of Ayrshire C Sheep, &c., has several young Bulls and for sale. His herd is well known as one of best in Canada West, and his terms of sale liberal.

Full Pedigree of all animals—U. C. Register.

The Agriculturist,

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For the half year commencing 1st July the price cents Nine copies for $2.