

FARMER'S ADVOCATE

AND HOME MAGAZINE.

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THE EXHIBITION NUMBER

—OF THE—

Farmer's Advocate

FOR 1879.

—WILL BE ISSUED—

On or about the 1st September next.

Our third annual issue, of this fast increasing and most successful advertising medium, will be the best one ever issued. While thanking our patrons of former years, and the patrons of the *ADVOCATE*, for their confidence in our endeavors to promote their interests, we can assure them that our endeavors will not be relaxed, and that the increased facilities now in our hands will be used to the utmost for their benefit.

The circulation will be carefully divided among the leading farmers throughout the Dominion.

Prospectuses will be issued on the 15th July, and space can now be reserved.

Send for a Circular at once.

The Month.

The weather during the past month has been favorable for securing the hay and most of the grain crop in Ontario. The hay is hardly an average crop, but it is saved in good condition.

The fall wheat filled well, is secured in good order, and will, we think, yield a fair average return.

Barley has been secured in good order; we think the color and quality will be superior to last year's and the yield about an average.

Spring wheat will not prove very remunerative this year; the yield will be below the average, but perhaps as good as for the past 3 years, which will not be much to boast about.

The pea crop will yield well in straw and in the number of peas, but the pea bug has been very busy this year, and the weight and quality of the crop will be very materially decreased by the ravages of these insects.

The root crop promises a bountiful return.

Apples only promise a medium crop.

Peaches and grapes both promise abundant crops.

We repeat again our old cry—Sell, sell, sell! Let others speculate—follow your own business—one business is enough for any man to attend to properly, and when men devote their energies to speculating they are apt to do so at the sacrifice of money, profit, honesty and honor. As a general thing you will find this the case. A few may succeed, but the majority lose by dividing their energies. Either farm or trade; sell your surplus crops; pay your debts and take care of the surplus; use it in raising more and better stock, and heavier

crops, and making your home comfortable. Do you think that farmer is happy who has not a shade tree to protect his uncomfortable-looking stock from the hot sun? Some have not a tree to shade the children while playing or working.

The loss on weight, the risk of keeping, the chances of higher prices, the loss of interest, are all against the farmer that withholds his crops from market. If you even have to pay to help carry your grain to market now and could do it yourself during the winter, it has often been found best to pay the extra cost of teaming. There are lots of slow coaches that you can hire now—neglecting their own farms till the roads get bad, or winter sets in; give them two days' work, for one day now is worth three or four in the winter. The days are long, the roads are good, and navigation is open. We wish our subscribers to be the leaders of the progressive.

Our Butter Interest.

Our English letter in this issue contains much valuable information, but we regret to hear such a deplorable account of our Canadian butter. Read the remarks in the letter; then let every one of us endeavor to do our duty and remove such a disgraceful stigma from our shoulders. Our pastures may not be quite equal to the pastures in Europe; our summer heat may be greater; our cold water may not be as plentiful; our mode of handling and packing may not be right. All can read this deplorable account, and we should endeavor to avoid such a reputation. Have you no suggestions to make? X. A. Willard says that numerous instances can be pointed out where cows that have been whipped, frightened or otherwise abused, have yielded milk that has caused disease and death to persons using it. Are our cows as comfortable as they ought to be in summer and in winter? Are they kept as clean as they should be? Is there decaying filth near or in their stables or pastures? Milk is more susceptible of injury from bad odors than any other human food. Are our milk houses as cool and free from foul air as it is possible to make them? Is it right to mix all kinds of butter together? Will not one bad lot, spoil a whole keg or many kegs? Are we all aiming to improve the value of this important article of commerce? Are we to be content with only quarter the value of our produce? Mrs. Sloven will not always have as good a price as Mrs. Cleanly. There must be a discrimination in good and bad butter-makers. We have had some good butter in America, and much that is only fit for grease. Can you not send us an account of the treatment of your cows, the mode of making and marketing your butter, and the price you have received, so that it may guide some into the way to improve and help to stop the reputation of sending the worst butter to England that is to be found there.

The Best Winter Wheat.

Many are considering which is the best wheat to sow this fall. We cannot direct you all aright, but will give you the best information we have been able to obtain. In the County of Kent, perhaps the best wheat growing county in this Dominion, we hear the Scott wheat is yet the favorite wheat; in London Township, perhaps as good a wheat township as any east of Kent, the Clawson is preferred to the Scott. On my son's farm, in Delaware Township, there is very little difference, if any, between the Silver Chaff, Clawson, Scott and Mediterranean. These we consider the four best varieties. Threshing may tell a tale that the eye could not detect in the field. On some light and early soils the Deihl wheat may yet be preferred. We should commend you to sow the varieties that are yielding best in your localities. Some farmers sow the last week in August, but we prefer the second week in September, as the Hessian fly is numerous in some sections, and it delights in the early sown winter wheat. The first frost kills this pest, and thus the late sown wheat escapes. There is also danger in sowing too late, as the plant should have a good growth before winter sets in, if possible.

Notice.

If we form erroneous opinions on any subject we wish parties that may hold different opinions to express their views and send the same direct to this office. We wish for open and plain discussions on subjects of importance to our readers, the farmers of this Dominion. The pages of this journal are always open to letters from farmers. This is not a contractors', speculators', sectarian or political organ. Communications are not solicited for such purposes, but for the advancement of the interests of the farmers of this Dominion. We have not time to open one-quarter of the publications that come to this office. If our attention is required to any subject, it must come through some of our subscribers, either in writing or clipped from other publications, with the name and P. O. address of sender, to ensure perusal.

A Request to Old Subscribers.

If you think the *FARMER'S ADVOCATE* has done, is doing, or will do, good to yourselves and the Dominion, and should be taken by any of your enterprising friends and neighbors who are not subscribers at present, we should feel obliged if you would send us a post-card or a letter containing the names and P. O. addresses of such parties, and we will send them a sample copy free. We are just about issuing our mammoth edition of 50,000 copies before commencing our fall canvassing. The list of names will be of use to us, particularly if they are from post-offices where but few are as yet sent. You can write a half-dozen names and post-offices on a post card, signing your own name and post-office, so we shall know from where it is sent.

English Letter, No. 4.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, July 3rd.

The shipments of Canadian cattle have arrived here with remarkable safety of late. Out of two recent shipments comprising 717 head, only two deaths are reported; and even this small loss was to a certain extent made up by the births of two calves during the journey; and they were landed alive and well. There are a few milch cows coming forward, some of them realizing as much as £26 per head; but others being of an inferior common breed and quality, have barely, if at all, left a profit. I can but repeat a remark often made before—that it does not pay to ship anything but the best of its kind to this country. Canadian horses are arriving to a fair extent. Messrs. Spinks, of Ottawa, have landed 35 more omnibus horses in very good condition, and a portion of them which were sent to Dublin realized capital prices there.

It was stated that on the 6th of June a lot of Canadian cattle were detected at Derby with foot and mouth disease. It was, however, proved to the satisfaction of the Privy Council authorities that if the cattle in question had this disease they must have contracted it in some way since they were landed here, as the disease is unknown in the Dominion, as we hope it may long continue to be. I see, however, that a Mr. Coke, of Longford, Derbyshire, is agitating in the *Agricultural Gazette* this week and urging that these cattle must have contracted the disease in Canada. This is of course absurd; but the inquiries of Colonel Kingscote in the House of Commons, and letters such as this of Mr. Coke's, show us how vigilantly they are watching for an opportunity of placing our cattle in the same category with those from the United States. The lairage and slaughter-house accommodation at this port has of late been largely increased, but it would still be inadequate to any increased strain; and a block would mean a terribly heavy loss to somebody.

At length I am able to announce that the cold store established by Messrs. H. J. Stephenson & Co., Victoria Street, in this town, is in full operation, and that it is likely to prove a marked success. I visited it the other day, and the representative of Messrs. Hicks, Hargreaves & Co., of Boston, the patentees of the process, very kindly explained to me the whole system. As it is a curious lesson in natural science, your readers will, I am sure, tolerate a brief description. The agents employed are purely mechanical, chemicals being wholly dispensed with. By simply compressing air to from three to four atmospheres—that is, to from 30 to 45 lbs. above the ordinary atmospheric pressure, subjecting it in that state to thorough saturation by means of fine jets of cold water, and then allowing it to expand to its normal state, a degree of cold as great as that experienced in any of your Canadian winters—that is, up to 30 degrees below zero, can easily be produced on the hottest summer day. This method of producing cold is not strictly new, and the patentees do not claim any special merit for it; but, before being allowed to pass into the storage rooms, this intensely cold but heavily moisture-laden air is subjected to a process which causes it to throw down in the form of finely powdered snow, every particle of moisture that it contains, and the air then passes, absolutely pure and dry, into the store-rooms, where, without difficulty, a temperature of very little above freezing point is maintained. The thorough drying of the air is the special merit claimed for this invention; and it certainly has a most beneficial effect upon all matter liable to quick decay. The apparatus is very compact, con-

sisting of a contraction cylinder, water pump, expansion cylinder, and snow box, the latter being the great secret of the plan—the mystery box in which the air is deprived of all its frozen particles. Of course an engine to supply the motive power, conduit pipes for the distribution of the cold air, and a certain amount of packing with non-conducting materials, are also required. The cold store has so far been decidedly successful; and as its opening was witnessed by members and officials of the Dock Board, and other interested parties, a large extension of the system may be looked for. The boon to shopkeepers, who now must either sell quickly or lose heavily in hot weather, will be immense; and Messrs. H. J. Stephenson & Co. deserve every encouragement for their plucky venture.

A cold, late and ungenial spring has been succeeded here by an early summer of almost perpetual rains and high winds. The "hot summer" which the prophets predicted is now looked for almost with longing. The grass crop promises to be most abundant, and cutting has been in progress in the earlier localities for some weeks. More settled weather is now urgently needed for its safe in-gathering. Hot, bright weather is also much needed for the grain crops, and especially for the flowering of the wheat. Hitherto the farmers have had but slender encouragement from the weather, and the prospect of another inferior, if not altogether bad harvest, in face of the general agricultural depression here, is disheartening indeed.

The great event since my last letter is the holding of the Royal Agricultural Society's Show at Kilburn, London, which was opened on the 30th ult. by the Prince of Wales, and is probably by far the largest exhibition of the kind ever held. Your readers may form some idea of its proportions from the following figures. The area occupied by the Show is a hundred acres, the live stock alone taking up more than six miles of shedding, and machinery and implements more than four miles more. There were 815 entries of horses, 1,007 of cattle, 841 of sheep, and 211 of pigs, making a total of 2,874, which is more than double that of Liverpool in 1877. It is utterly impossible in the compass of a letter to give any detailed description of such a vast Show, but, as most likely to interest your readers, I will venture a few remarks on the horses and cattle.

The class of Shorthorn bulls, though large, was not an exceptionally good one, and great fault was found as to the judging. The Herefords, as is always the case at the Royal, were a grand show, but the Hereford breeders did not appear in such full force as might reasonably have been expected. This was accounted for by the fact that several noted show animals being entered, owners of second-rate animals were deterred from displaying them.

The sheep were a show in themselves. The display was really magnificent. Lord Walsingham, in the Southdown class, was only able to take second prize this year, and the Prince of Wales the third. The Shropshire Downs, which are stated by competent authorities here to be the best to cross with our Canadian breeds for the production of mutton for this market, were a grand class. These sheep were not admitted till 1860 to be of sufficient importance to entitle them to rank as a separate breed at the Royal Society's Show. Since then they have rapidly come forward in the public estimation, though there is still some contention as to the true characteristics of the Shropshire sheep. Mr. G. Graham was the most successful exhibitor. In Cotswolds, Mr. T. Brown took first prize in rams; Mr. R. Jacobs for shearing ewes; and Messrs. Gillett second and third in

both classes. Mr. R. Tweedie was first with Border Leicester, and Messrs. Buton and T. H. Hutchinson in the Leicesters; whilst Mr. H. Smith took all the leading prizes for Lincoln sheep.

The show of horses was remarkable both in number and character. The classes for English, Clydesdale and Suffolk animals were especially good. The hacks, roadsters, stallions and ponies were not up to the mark of previous exhibitions. The Percheron, Norman, and Anglo-Norman Agricultural horses were very interesting, and a useful type for light work. Their chief failing, in an English point of view, was that they were not deep enough in the chest, and lacking in weight for the collar, to draw the heavy loads placed on horse-flesh in this country.

Of the American and Canadian exhibits of butter, the *Mark Lane Express* says:

"American butters are a failure. Most of the samples are off in flavor, having lost it on the way; but there is something more than mere travel to account for this, and we hope to see the cause made clear."

Your journal, so far as Canada is concerned, has been actively engaged in making this cause, or these causes, clear, for some time; but I regret to have again to state that the agriculturists of Canada seem still to be blind to their own interests in this respect, for the Canadian butter now arriving is as bad as any that could be permitted to be placed under the name of butter. In contrast to this, the entries of butter from Northern Europe—from Sweden, Denmark, Jutland and Finland more particularly—were very numerous and very good. How long will such a report have to be sent to you? In the class for three cheeses above 40 lbs. weight each, colored or plain, Canadian or American, no award was given. The International Dairy, which was to have been one of the most interesting features of the show, was literally a sea of mud; very little could be seen, and the value of the show was almost entirely lost. In a small tent close to this show was exhibited a monster Canadian cheese, weighing three-quarters of a ton, manufactured by Mr. Morton, of Kingston, and exhibited by Mr. Webb, a provision merchant of Kensington, London. It was cut up by a new patent electrical machine for cutting cheese and retailed to visitors at 25 cents per packet of about a quarter of a pound. The flavor was excellent, and so proved a grand advertisement for our cheese interest.

The principal of the Canadian exhibits, which were lamentably few, at this Grand World's Show, and considering that nearly the whole of our export trade is, and will be, conducted with this country, was that of Mr. W. H. Pellow, the indefatigable European agent of the A. S. Whiting Manufacturing Company, of Oshawa, Canada, who had a remarkably fine show of hand forks, spades, rakes and other articles for field, forest and garden. *Bell's Messenger*, speaking of this exhibit, says: "As this is a new trade which has rapidly sprung into importance in our North American Colony, it is interesting to note that they are smartly rivalling, if not surpassing, some of the older makers in the United States." Messrs. Whiting's goods are admitted by everyone to be superior in point of finish to any goods of the same kind manufactured either in Europe or America, and in this respect strangely contrast with almost all kinds of manufactures exported from the Dominion which are usually conspicuous for their rough and untidy finish.

The weather throughout was most unfavorable and the ground was in a deplorable state. The visitors made their way as well as they could over planks and sleepers which had been placed over the slush into which the whole ground had been converted. Even the planks were often

buried in the mire. One or two incidents came under my notice whilst standing on the show ground with a friend. A farmer from the West of England, with feet encased in heavy hobnails, was wading along, followed by his wife or sweetheart. Coming to one formidable spot she exclaimed, "Don't 'ee leave me, Jim—don't 'ee leave me." Jim replies, "Come on; thee'll be all right." She expostulated, "How be I goin' to get over this mud?" Jim saw the reasonableness of this, and threw towards her a small piece of plank and said, "Put thee foot on that." She did so, but alas for the success of Jim's gallant effort, for the wood slipped on the greasy clay, threw her down, and Jim, for the next twenty minutes, was busily engaged in scraping the mud, as best he could, from the smart attire of his heart's desire, to the infinite amusement of a number of spectators. Again, there was a model tramway on the ground, which was very largely patronized, but near the Judges' Stand there was a sharp curve, and some stout and jolly farmers, being on the near side, did not notice this, and were comfortably shot into a pool of mud, where they floundered like pigs in a favorite mud patch. It will be seen, therefore, that though so desolate, the scene was not without ludicrous incidents.

It is variously estimated that the losses which will fall on the Royal Society this year through the inclement weather will be from £20,000 to £50,000. Even the smaller sum is serious enough. Still, though this show has resulted in such a failure, it is becoming one annually more international in character, and includes many kinds of implements and other things not strictly pertaining to agriculture. It is, therefore, a question whether our Provincial or Dominion Government should not make a display of our products there, as this would place our resources before the class of men who are most desired as settlers in Canada, in the most forcible and successful manner. The Show will be at Carlisle next year, and this being very central for England, Scotland and Ireland, a large show in every respect is expected.

The steamer "Bulgarian," of Boston, arrived in the Mersey last week, with 1,600 sheep, which, I understand were purchased in Boston and Buffalo markets. These sheep, being evidently diseased, were debarred by the Privy Council Inspector, acting for Mr. Moore, the gentleman who made the seizure of American cattle for pleuro, and of hogs for typhus, and who is at present ill. The Privy Council, on being aroused, sent down Prof. Cope, and he at once pronounced it to be a decided case of foot and mouth disease, though this is strenuously disputed by several shippers and others. Notwithstanding this they were all ordered to be slaughtered on the Quay, and they were ultimately taken to the new lairages at the Hoskisson Dock and slaughtered there, the skins being impounded. If this be a case of foot and mouth disease, it can only have reached the States through imported animals—probably from Holland and Belgium, which are the hot-bed of this terrible disease in Europe. I understand that representations have been made to your Minister of Agriculture, which, probably ere this reaches you, will have resulted in the prohibition of the entry of American sheep into Canada, and the taking of all other possible precautions, for the foot and mouth disease, unlike pleuro, may be conveyed by the slightest means. It has even been said that hares and rabbits, or dogs will take it from one farm to another.

In the current number of *The Nineteenth Century* Mr. T. Vernon Smith has an article upon the development of your immense area of prairie land in the North-West, which he considers destined to

work a great revolution in the sources of food supply. The article has excited great attention.

Speaking of the Liverpool Cold Store of Messrs. H. J. Stephenson & Co., already referred to in this letter, the *Mark Lane Express* says: "This is a step in the right direction for putting the dead meat trade on a firm footing; and it is to this trade, home and foreign, that we must look for the extinction of the foreign import cattle trade to which producers owe the presence of contagious diseases of animals."

Yesterday I heard an old farmer of 50 years' standing say that he does not remember a season which, up to the present time, has looked so utterly dark for the British farmer as the present one. I hope to have better weather news in my next.

Manitoba—No. 2.

In undertaking to furnish our readers with correct information about Manitoba and the North-West Territory, we find we have one of the most difficult tasks we have undertaken since commencing this publication. In every new country there is a difficulty in forming correct conclusions; more particularly is this the case in Manitoba, there are so many powerful influences at work, all tending to bring men and money into this part of our Dominion, the centre of which is at present in Winnipeg. In our writings we shall endeavor to lay the advantages and disadvantages of this section of the country before our readers. We do not think that the real interest of the farmer will be overlooked if we expose a few evils that appear to be at present existing.

It would be a much easier task to write a laudatory account of all the prosperity and future prospects, or an emigration pamphlet, or disparaging accounts. But we must give you both sides as they appear to us. We cannot convey a correct idea in the small space that we can occupy in one or two issues of this journal; it will take some months to complete our observations on our first trip, which took place in June, generally the wet month in Manitoba, and this season it happened to be unusually so. The height of excitement in regard to this Province is probably at the present time; at least we hope so, for the deluded class are too numerous. We fancy that we know enough about wet and mud in Ontario, so that we can form an opinion of the state the land would be in when dry. We do not wish to check enterprising, active, energetic farmers or speculators that have money from going there, but we wish to immediately check the emigration of poor and industrious farmers' sons that cannot command about \$1,000; our last issue stated \$600, but we do not deem that sufficient to make a good start with. The Government pamphlet states \$300 as sufficient; that sum may have been so a few years ago, if the individual was fortunate, but the present position of affairs requires more money to make a start with.

We returned to our office on the 8th of July, having been away just four weeks. Emerson is the first point we touch on reaching Manitoba; it is a thriving, busy place, and appears as if it will be an important town, having the advantages of railway and steamboat communication, and good soil in its vicinity. We saw wheat growing most luxuriantly; it was looking better than the majority of wheat-fields we have seen in Ontario. We heard many farmers there who had taken up land speak most favorably of their prospects; many preferred the climate and soil to that they had left in Ontario. Those that were engaged in mercantile pursuits were doing well, and hotel-keepers were doing a good business. Many emigrants were preparing to go into the country to their several destinations. Many people were out of employ-

ment and could not find work. Several emigrants who had intended to take up land had returned unable to find suitable locations, and complaining bitterly about having been deceived; they were much exasperated. Many were going into the United States, some to take up land, some to seek for work. Many of these are farmers' sons who came here expecting to obtain free land, to do some improvement and work out part of the time to earn necessities, many of them persons who have gone through hard work in Canada, and ready to go through hardships and toil if they could see a chance of their obtaining the land they expected; but having expended from one to two months in traveling in quest of suitable locations, they leave in disgust; they go to the States, enraged by the treatment they have received, and now take the oath of allegiance to that country. They complain that free land suitable for farming, within reasonable distance of timber, is not to be had; they have traveled to every place they were directed to, and have been deluded by false statements. The best lands are now all taken up, or reserved for Menonites, Icelanders, English companies, the Hudson Bay Co., Indians, etc., and what is not taken by these and other reserves is Scrip, that is, held by speculators, some of whom hold from 50,000 to 100,000 acres. The only free land to be obtained is wet and low, and not worth having, or is too far from timber.

Again, they say that speculators want from \$3 to \$10 per acre; then if they go and hunt and report favorably of a lot, the speculator will spring the price on them or pretend it is sold. From these and other causes

WE HAVE LOST SOME THOUSANDS

of really first-class, loyal men, who would have been settlers in our Dominion—men that shameful treatment or rascally bad management have driven from us, and most of whom are driven for ever from the British Crown. We have been paying many thousands annually to import poor, miserable, inefficient emigrants, and for the lack of correct information allowing our farmers' sons to be deceived and driven to the United States by bad management, neglect or greed. One of our good native sons is really worth more than a dozen of these new imports that we have to feed and clothe.

After spending some time about the Village of Emerson, we walked to the emigration sheds. Here we found some that were going into the country, but by far the larger number have been out, some in search of work, some in search of land. As we approached the sheds we met three good farmers' sons walking off to the States, intending to work and get back the best way they could. Some had been at work on the Canada Pacific R. R. They say the men broke out with black-leg or other diseases from improper board; they were treated like dogs. The men would not be allowed to board themselves, but must pay the Company or be dismissed; their wages were reduced without notice, and they were not paid as agreed; every man had to pay fifty cents for doctors. Two of the men had been injured by blasting, and were allowed to lie unattended, except by the other men after work, and they died from neglect.

From so many similar reports about the treatment of the men, we are inclined to think that the workmen on this line differ very materially from the operatives that struck on the Grand Trunk R. R. The men only asked for their own and their just dues on the Canada Pacific, but on the Grand Trunk the men committed acts deserving of severe punishment, imprisonment and fine. The contractors appear to us from all reports to have been at fault in Manitoba, and they should be made to pay all expenses connected with that disturbance. We hear of several that are unable to pay their

fare walking back to Ontario, but the States will retain many of the disappointed.

We went to the Emigration Agent in this part of Manitoba. He is located at Dufferin, about one mile from Emerson, on the other side of the Red River. Here are situated a lot of old emigrant buildings, and a large lot of land is in connection with this establishment, none of which is cultivated. A Mr. Tetu is the

GOVERNMENT AGENT.

We walked into his office and enquired for him. His assistant or clerk went for him into some of the chambers of this large house. We questioned him as an emigrant for an emigrant. "Where can work be obtained?" Ans.: "There is plenty of work to be had in Emerson." "What wages can a farm-hand get?" Ans.: "I do not know." "What can a carpenter get?" Ans.: "I do not know." "Where can I get any Government land?" Ans.: "That is not my business." "What quantity of wheat might I expect per acre from the first crop?" Ans.: "I do not know." "How many emigrants have you in those sheds?" Ans.: "About fifty." "Have you been to the emigrant sheds in Emerson?" Ans.: "No." "Why have you not been?" Ans.: "I have received no instructions." "Have you any instructions for emigrants?" Ans.: "No." "Have you any circulars or pamphlets?" Ans.: "No." "When did you issue your last circulars?" Ans.: "About two months ago." "Have you a copy of that circular?" Ans.: "No." "Where did you send them?" Ans.: "Principally to the States."

We asked several other questions that emigrants would be wishing to know, but we found this Government employee totally ignorant of the state of the country, and so careless as to be more inclined to drive away than to attract an emigrant to our Dominion. Whatever such a person is employed for is a mystery to us. We do not think there were one-quarter as many emigrants at his sheds as at Emerson. Those at his sheds appeared as if domiciled there. At Emerson information was needed also. If proper, truthful and correct information could have been given to many in regard to the position of the country and where Government lands might have been obtained without weeks and months of travel, toil and expenditure of money and patience, many hundreds of really good farmers and farmers' sons would now have been settled in our Dominion who are gone to the States, where they will remain and will draw their friends there. This is only one of the specimens of Government employees that we in Ontario have to pay.

We made enquiries at the Land Office at Emerson. Here we found an obliging land agent named Newcomb; this person would give us every information in his power, but he could not inform us where a free grant lot was to be obtained in that part of the country that was dry and fit to make a home on. He had a lot of wet land that a person might have if he would live on it. We saw some of the land, and have no hesitation in saying that it is unfit for settlement until it is drained, and that it would cost ten times more to drain a farm in this locality than the land is worth. There is a large quantity of really good dry land here, but it is either reserved or held by speculators.

Seeing the loss the Dominion is sustaining by having such an inefficient Emigration Agent, whose duty should have been to look to the requirements of emigrants and endeavor to prevent the loss of so many thousands of our best settlers, we sent the following telegram from Emerson to the four leading papers in the city of London:

"GOVERNMENT SHOULD AID DECEIVED CANADIANS TO RETURN—STOP PAUPER EMIGRATION."

These emigrants to Manitoba had expected free

grant lands suitable to make farms of, and that a small sum was sufficient to establish them in this part of our Dominion. Government reports, pamphlets, circulars, lectures and the newspaper reports had, they claimed, deceived them; they were vexed. Many with means and many first-class men have been maddened and deceived, and left our Dominion in disgust with the management.

We met many that had written accounts to the papers in Ontario, and they said these papers would not publish the facts. We went into Dakotah, and there they informed us that as many Canadians are settling there as in Manitoba; but this we do not think correct. However, we have lost many and are losing daily lots of good men that are really needed in Ontario. We saw men that had expended their little earnings in going to Manitoba and traveling about, at work on steamboats night and day for \$10 a month, and used pretty roughly at that. Some were waiting for money from Ontario to take them back; some had no such hope; some with money went to the States and intend to stay there to earn as much money as they had taken from their homes in Canada before returning. Many a sad sight we saw, many a hard tale we heard, and these from hundreds during our short stay.

We left Emerson, which is the second largest place in Manitoba, and went to Winnipeg. On the railroad from Emerson to Winnipeg the conductor tried to defraud us out of our ride by attempting to make us pay again. We heard that this is one of the sharp practices, and many emigrants that are not posted have been fleeced by these rascals. They did not succeed in defrauding us, but some one should make these conductors or the railway company disgorge their improperly gained cash and refund fourfold to those emigrants that have been duped. Here the Government is fencing in the railroad. For about fifteen or twenty miles along the line no animal could approach unless by swimming, and we might as well fence in the Atlantic steamers' course for fear of their running over cattle; but the people of Ontario have plenty of money, and contractors and engineers that have situations must be paid. Then this fence that is to be made of posts and rails must cost about ten times as much as a farmer would put up a better and more durable fence for. For instance, we find the progressive farmers use wire and take part of the bark off the posts or rails; we are informed that by removing a strip of the bark on two sides of this fencing wood that the posts and rails will last a great number of years, but if the bark is left on they rot and fall down in a short time.—Question: Who is to blame for this fencing with rotten poles? Who pays the piper?

We arrive at St. Boniface. Here we are met with another reserve two miles in all directions, and an expensive Government ditch put through this reserve, which of course is put on the wrong side of the road, and it has made the road worse than it formerly was (so they tell us). The earth from the ditch banks the water on the road. The road is beyond our powers of description, or your credence, if truthfully described; but more Ontario money must enhance the value of these reserves, for which enormous prices are asked already.

AT WINNIPEG.

The Manitoba Parliament was in session in the House at the time we were there. The discussion was about redistribution of seats for party purposes. It should have been—What good can the present members do to prevent the loss of emigrants? We spoke to leading members of the Government and to other members; also to the emigration agents and other officials, about this important subject. But here the speculators, members, officials, etc., have one and the same stereotyped cry, that is,

"THE EMIGRANTS ARE CHICKEN-HEARTED.

We do not want such; they will do no good here; we shall get plenty more good ones." Also they say they want money from the Dominion Government to build railroads, bridges, drain lands and make roads. Lots of these M. P. P.'s and other speculators hold from 20,000 to 100,000 acres of land each, large quantities of which cost them from 20c. to 75c. per acre, and they want from \$3 to \$10 per acre for it, and in Winnipeg \$45 per foot. They want our men with money and our public money, and the life services of the men that have not \$1,000 to expend in enhancing the value of their properties. Are these speculators to be made millionaires at the expense of this Dominion, without touching their own pockets? This is not right. It is the money that the Dominion is expending that has enhanced the value of these lands, and the lands thus rendered more valuable by our expenditures should be made to pay for their own improvements. We in Ontario have to pay for land improved by drainage or by roads. A heavy tax on all lands should be immediately levied, except on 160 acres held and occupied by a settler that is actually endeavoring to obtain his sustenance from the land. Many settlers hold a few thousand acres on speculation. The real settler has to make what little improvements there are made on the roads. There is much land that is not worth taxing; on the other hand, there are fine tracts that are valuable. Across the border whatever land is not worth paying a tax for reverts to the State; the same law could be advantageously put in practice here. It is our impression that the lands in Manitoba will be enhanced in value to the full extent of the cost of the railroad. Is it right that that increase in value should drop into the pockets of the land-grabbers, and Ontario be saddled with the cost of making these public improvements for others?

In this, the capital of Manitoba, we find lots of would-be settlers leaving because they have been deceived; they are angry, and some are going to take up land in the States, while others are returning to Ontario, Quebec and New Brunswick. We do not wish to imply that all are dissatisfied. Those that were here early and have taken up land are generally pretty well satisfied. Many are in high ecstasies over their change, but we are losing far too many of our farmers' sons, who would make most valuable settlers. To stop this loss is what we now wish to principally direct attention to. In due time we can speak of the advantages of Manitoba, but there is not much need of that at the present time, as everything that the speculators, contractors or office-holders can do to induce emigration and place their advantages before the country is being done. The time is coming when the country will want the class of men it is now losing; in fact we need them in Ontario at the present time, but they cannot get here; the return trip costs about double the price required to go there.

We sent the following telegram from Winnipeg to the Hon. J. Pope, Minister of Agriculture, care of FARMER'S ADVOCATE office, London, Ont.:

"LAND-LOCKED EMIGRANTS RETURNING—YOU SHOULD COME—IMMEDIATE ACTION NECESSARY."

We also wrote to the Minister of Agriculture and Public Works at Ottawa, and sent a verbal message to him by Mr. McKenzie, M. P. P. of Manitoba. We received neither letter nor telegram. The rain showed no signs of abatement, and we, hoping to do good, returned more hurriedly than we intended. Our Manitoba friends, we hope, will excuse our abrupt departure, but we hope to see them again on our return. We wrote to the Ministers of Agriculture and Public Works, in Ottawa, offering to go there and give information that we thought might tend to the good of this Dominion; but the authorities did not deem such a course necessary, therefore we leave our readers to judge from this and future articles whether they approve of our observations and remarks.

Continued on Page 177.

Agricultural Exhibitions.

The time has again arrived when leading farmers, mechanics and artisans must make up their minds what time and money they intend to expend at these exhibitions the coming autumn. To attend all is a matter of impossibility.

Our fall show programme is to be opened by the Industrial Exhibition Association of Toronto. The members of this Association have been exerting themselves nobly, and offer the sum of \$20,000 in prizes. The list of prizes is carefully prepared, neatly printed on good paper, and arranged in a manner that should encourage exhibitors. The executive committee have devoted their attention to endeavor to please the visitors that may attend. They add many pleasing attractions not usually found at this class of exhibitions, such as ladies' horsemanship, boys' horsemanship, boat races, dog show, fancy bird show, military and amateur bands and bag pipe competition, white rats and mice show, illuminations, &c., &c.

Her Royal Highness the Princess Louise and the Governor-General will formally open the exhibition on Wednesday, 3rd September. The exhibition is to continue from Monday, the 1st Sept., until Friday, the 19th. The worst we have to say against this exhibition is we fear the length of time it is to be kept open will prove too long.

The Provincial Exhibition is the next on the programme, which is to be held in Ottawa, from September 22nd to 29th. We have before us a copy of the prize list, and it is got up in the most disgraceful manner; the poorest kind of dirty, mixed paper is used, and the list of prizes are about as meanly arranged as the appearance of the book betokens. They call this the Grand Dominion Exhibition, which we think is a grand fraud on Ontario farmers, as it is our money that pays for it; the other Provinces do not contribute to its funds. A Dominion grant of \$5,000 has been given to it, perhaps to keep off bankruptcy a little longer. Let any farmer examine the prize list for grain or stock and then judge for himself. We consider it simply disgraceful, and shows a total ignorance or disregard as to the requirements of this Dominion. It may be said that we have advocated a Dominion or International Exhibition, to be held at Montreal or Ottawa. Yes, we did; but this was mooted to avoid making such a failure of the Provincial as took place the last time it was held at Ottawa. This should have been a national affair, and not taken up without due consideration, but this abortion of a Dominion exhibition spoils that grand plan for years to come. Most of the stockmen and artisans that exhibited at Ottawa at the Provincial Exhibition were heartily sick of it. No sales of any consequence were effected, and very few farmers from Ontario were there, except those that had part of their expenses paid from the public funds. The principal business delegates have to perform is to listen to the President's annual address, and sanction the wire-pullers' plans to move the exhibition where they may fancy. If it is not managed any better than it has been for the past ten years, it might be moved to the moon for all the good it is doing. Private enterprise has done, is doing, and will do, more good to the agriculturist of this Dominion than grants of money to petted men or petted institutions. Has the Agricultural College at Guelph been worth the powder? Has it aided or checked private enterprises?

We know parties who gained or deserved prizes that have been defrauded out of their just dues at the Provincial Exhibition, and the farmers of this Dominion will uphold us in these remarks, despite any bearing of technical law or quibbling points.

We speak for the farmers of the whole Dominion, and not for Ontario alone. We repudiate the fraudulent name Dominion Exhibition, and we condemn the acts of this Board, as will all independent farmers.

THE ADVOCATE will not publish the prize list of this so-called Dominion Exhibition (?) this year. We purpose publishing the prize list of the art and flower exhibit at the Industrial Exhibition, at Toronto, the fruit exhibit at Hamilton, the cattle exhibit at Guelph, and the implements at London. We consider by this means we shall be able to give our readers a more correct idea of the meritorious gainers of prizes. We may vary slightly, as we presume a better exhibit of Alderneys and Ayrshires may be made at Ottawa.

There undoubtedly will be competition for most of the prizes at the Provincial, as the people in that vicinity have a large quantity of good stock among them; in spring wheat and vegetables they can equal, if not excel us. Then Quebec will make a good display at this exhibition, as they will not hold their Provincial Exhibition this year.

Manitoba, we hear, will exhibit grain, vegetables, &c., at this Exhibition. She will carry off honors if she does.

The Western Fair, to be held in the City of London, opens on the 29th Sept. and closes on the 3rd October. The Directors offer \$12,000 in prizes. This exhibition has always been the favored one, being situated in the centre of 100 miles square of the best agricultural country to be found on this continent. Stockmen and artisans have always found the largest number of good sales effected here. This ensures exhibitors and visitors.

The Union Exhibition is to be held in Hamilton, from the 29th Sept. to the 3rd Oct. This Show generally excels others in the magnificent display of fruit, and the good order in which it is arranged. A liberal prize list is offered.

The Central Exhibition will be held at Guelph, from the 15th to the 19th September. This Exhibition commands a fine extent of country, and its crowning features is in its display of stock. In this department we may expect to see a greater competition among the real practical farmers than at any other held in this Province, particularly in the Shorthorn, Galloway and Hereford classes; also in Cotswold and Southdown Sheep, and Draft Horses.

We have not yet received the dates of any county exhibitions. It is a debatable question whether the township exhibitions are not doing more good than so many large ones. For our part we are strongly in favor of aiding the farmer and his family at these township exhibitions. The farmer, his wife, sons and daughters all can and do go, and the rivalry to vie with each other in taking the prizes and honors is pleasing. The mother and her family attend and spend a pleasant day. Much good, without doubt, results to the country from these township shows, and we should encourage them. From these exhibitions should spring the nucleus of Provincial Fairs. Then we might not have so much to complain of in the expenditure of our public moneys for the gratification or enrichment of wrecked politicians.

Macpherson, Glasgow & Co., Fingal, are the oldest established manufacturers of threshing machines in this Dominion. At this manufactory they are turning out 100 new machines this season. They have also another establishment equally as large in the town of Clinton. They have added several improvements to their "Climax" Apron and Vibration machines this season. They are now introducing an entirely new machine, called "Minnesota Chief." This machine is very simple in its construction and has great power.

The Provincial Board of Agriculture and Arts Association.

We have lost confidence in this institution, which for years has been in a shaky condition. The rights of the farmer have been trampled upon, and the interests of individuals that are, and have been, acting adverse to the interests of the farmers and the country been fostered. A great shock is assuredly coming. There has been a charge preferred against this Association of fixing the prize list and then altering it to suit favorites. It is our impression that the names of many of the prize winners might now be published, just about as well as after the Exhibition. We allude to some gold medals and large sums. A close investigation should be made, the cash should be carefully guarded and locked up, and the accounts audited by good independent men. There are some good, easy and honorable men connected with the Board, but tact and cunning are often hard to control.

We will give the names of some of the officers of this Board whose positions we think would be better filled by other persons: The Hon. G. Buckland—he has served the country faithfully, and has worn himself out in an honorable manner; Hon. D. Christie has served too long for our country's good; his tool, Craig, the secretary, the same; the fighting preacher, Burnet, if good in the pulpit, should be chained there; the treasurer, Mr. Graham, may have cash, but we do not consider he is interested sufficiently in the agricultural pursuits of the country; and we might add others. The fact is, if the Provincial Exhibition, or the School of Agriculture, are to be conducted for the benefit of farmers, which they are not and have not been, there must be a change in the mode of electing men to office. The office-holders, no matter what their office may be, should pass an examination at the hands of suitable examiners. Many of these persons have been legislated into office, or sit there by some cunning dodge. There are far too many of them, and this institution has degenerated from what it was intended, so as to be of no use or benefit to farmers. A common township exhibition, we believe, will do more good to the farmers of Ontario than this costly cess pool of iniquity, called falsely a Dominion Exhibition. See the numerous good county exhibitions to be held this year. Why should we be taxed to support this show at Ottawa to please a few office clerks that may be at the seat of Government.

There are plenty of just as good, or better, men among our subscribers than we have on this old useless and cumbersome body; men that know what farmers require, and what is for their benefit; men who can and will act independently and fearlessly. It is high time we had a change, and a change most assuredly we must and will have. No government aid can make the present Board a popular or beneficial one. The system must be reorganized. There is an M.P.P. and others we could mention that have barked too much for their leader Christie. Some of them, fully aware of the infectious diseases among farm stock, have not used it in the interest of farmers, but still retain seats on this Board.

What has this Board done to attempt to check the introduction and spread of dangerous contagious diseases amongst our farm animals? Nothing! But some of them have watched one or two kinds of contagious diseases introduced and spread, and knowingly and wilfully attempted to blindfold our farmers and cause false impressions to be spread by hired vassals, to the detriment of honor and honesty. Further, one member of the Board, and a Senator of our Dominion, attempted, in the halls of our Legislature, to give the Americans as much, or more power than we have in spreading the diseases of animals in our Dominion.

We notice, from other journals, that a disease has carried off a lot of hogs in Manitoba. If this case is followed up properly, very likely it will be found that American stock has implanted this disease in the prairie province.

It is now seven months since this journal commenced clamoring for the prevention of the introduction of these diseases into Canada. Something has been done by the Government, but not enough. We may yet have to reckon our losses at millions of dollars annually. If so, we will have none to blame but our inefficient Board of Agriculture in this Province. If we are spared from such a calamity it will not be from the judicious acts of this Board.

Stock.

Pleuro-Pneumonia.

The great interest manifested by both the Canadian and American people in this subject, on account of the very serious effect its existence in the United States has on both countries, induces us to reproduce an article by Prof. Law in the June number of the Live Stock Journal, in which he fully establishes beyond a doubt the contagious nature of the disease.

That the interruption to our trade is a very serious loss cannot be overlooked, yet when the facts are considered that contagious diseases in cattle exist in the United States, and that (as the English law now stands) that country must be placed on the scheduled list, nothing was left for our Government but to prohibit the entry of American cattle, or to allow Canada to be scheduled also.

The question thus presented itself to the Government: Is it better to run the very serious risk of introducing cattle disease into our hitherto healthy country, and have our cattle slaughtered at the port of entry, or to protect our agriculturists at the risk of interfering in some measure with our carrying trade? The wisdom of the Government in adopting the course they have will become more apparent when we consider the rapid development of our country. It is true that, hitherto, the inducements for breeding large numbers of cattle were few; now, however, the opening up of our Great North-west Territory, which will speedily become great cattle-runs, and the increased attention to stock-raising which our farmers are now induced to give, will enable us in a few years to export ten times as many cattle as we do now, and every successive year will see an increase in our production of live-stock.

We have no intention of entering into the discussion raised by Prof. Williams of Edinburgh, and re-echoed on this side of the Atlantic by Mr. Smith of Toronto; both opinion and authenticated facts have long ago proved that the former has made a gross blunder, and has seriously shaken the confidence of the profession and the public in one whom they were inclined to look upon as an authority; and his follower has convinced the public that he has no independent opinion of his own, that he has presumed in the face of the most unmistakable evidence to theorize on a matter of the utmost public importance, on which he had no possible opportunity of being capable of forming a correct opinion, he never having even taken the trouble to see for himself whether it was or was not the contagious lung-plague of Europe. Not only so, but we believe he has never had any experience of the disease since he entered the profession; yet, simply because Prof. Williams disagrees with the whole profession in Britain on a question which he is not competent to judge, never having seen the disease in America—Mr. Smith, merely to gain some notoriety and to please a few interested parties, thinks fit to disparage the opinions of all the leading members of the profession in America, and thereby create and keep up a feeling of dissatisfaction between those immediately interested. If his opinion had any weight, which it fortunately has not, it would weaken the efforts of those who study the interests of the United States by endeavoring to bring about measures for the extermination of the disease by stamping it out.

It is much to be regretted that the United States authorities are not using due diligence in following up the disease. The inevitable consequence must be that the disease will spread (in fact we are credibly informed that it is spreading), and even now it occupies a much greater area than it did six months ago.

Since the opening of navigation about 7,000 head of cattle have been shipped from Canada, most of them distillery-fed. Will the obstructionists inform us why distillery-fed cattle from Canada should be free from disease, should stand the voyage and be landed in a healthy state, any more than distillery-fed cattle from the United States? Or why distillery-fed cattle from the West should be healthy, while those from the infected districts in the Eastern States are diseased, if it be not because the latter are exposed to contagion from which the former are free?

Why has pleuro-pneumonia not been found in Canadian cattle by the inspectors at British ports, if it be not because no such contagion exists here? The Canadian people accept the opinions of the obstructionists at their proper value, they have

confidence in the unbiased opinions of Professors Walley and McCall, and Inspectors Brown and Duguid, supported by the ablest men in the profession in England, and of Professors Law and Liantard, and of Messrs. Gudsden, Mincher, Bushman, McLean, Lockhart, and others in the United States, in confirmation of the report of Prof. McEachran, the Inspector for the Canadian Government, whose report on the disease in January last confirmed the statements as to its prevalence repeatedly made by the Commissioner of Agriculture to Congress, and the published reports in the Live Stock Journal and other leading agricultural papers. This evidence is but a fulfilment of the predictions of Prof. Gamgee in his report on The Lung Plague, published by the United States Government in 1871, and his lecture before the Vermont Dairymen's Association. What Gamgee then reported is equally true now, except that the disease is now more widely spread:

"That the lung-plague in cattle exists on Long Island, where it has prevailed for many years; that it is not uncommon in New Jersey; has at various times appeared in New York; continues to be very prevalent in several counties in Pennsylvania, especially in Delaware and Bucks; has injured the farmers of Maryland, the dairymen around Washington, D. C., and has penetrated into Virginia."

Had the following sensible admonition been acted upon, we should not have seen such a deplorable fulfilment of the prediction it contains. Prof. Gamgee in his report says: "Of all the cattle diseases pleuro-pneumonia is, in the long-run, the most destructive, because the most insidious and the least likely to rouse a people to united action for its effectual suppression. To ignore its presence is, however, to insure that the cattle mortality of America, like that of England, will be at least doubled in a few years. Rational means, energetic action, and earnest co-operation between the different States and the central Government may, with a modern expenditure now, save millions annually in the not distant future."

Unfortunately, obstructionists such as Williams and Smith who, without endeavoring to find out the truth, merely advance a theory to please those whose pockets are immediately affected, and thus lead to the continuance of the most destructive plague in animals by inducing apathy in stamping it out, will find followers. No doubt the gentlemen referred to have, in a measure, gained notoriety by these theories, but it is a notoriety which may prove of questionable utility to them.

BOVINE LUNG FEVER.

Prof. Law writes as follows:

"With some writers among us there appears to be a peculiar and inexplicable dread connected with this disease. If this were a genuine dread of the disease itself, accompanied by an earnest desire to rid the country of it at all hazards, it would be laudable. But it is not really the disease which is dreaded, so much as the knowledge on the part of our customers of the presence of the plague in our midst. The plague itself! why that is an exceedingly small matter. I know that that existed in Massachusetts in 1858 and 1860, and was killed out by the energetic action of that State, at a cost of \$68,000. I know that since that time it has been repeatedly carried from New York City into Connecticut, where it has been again extirpated by the action of the State Commissioners. I know that all the Massachusetts Board of Cattle Commissioners visited the Skillman stables at Brooklyn in 1862, and 'found some sick with the acute disease,' and killed one in the last stage of the illness, the examination of which 'showed a typical case of the same malady which existed in Massachusetts.' I know that the Commissioners reported that

"If New York, New Jersey, and Pennsylvania would adopt similar measures to those in the State (Massachusetts), it would be one of the modes of securing the whole community against this disease which, if allowed to remain, would endanger the best stock in the country, and greatly deteriorate the most substantial food of the people."

"I know that the importation of the plague into Massachusetts in 1858 was made in the persons of the Holstein cows imported by Mr. Cheney of Belmont. I know further that the first importation into Brooklyn in 1843 was by a Dutch cow landed near South Ferry and taken into a stable near the foot of Joralemon Street. Many still live who can relate all the circumstances of the boasted milking qualities of the imported cow; of her early death; of the infection of the herd with which she stood; of the extension

of the disease to a distillery stable across the street, and thence, by the sale of Cows, all over Brooklyn. From that time to the present it has prevailed constantly in Brooklyn, having been kept up by the continual changes among dairy stock, and by the mingling of different herds in summer on the open commons around the city. The ancestry of this disease, in Brooklyn, can be as satisfactorily traced as that of any family in the English peerage, or that of any crowned house of Europe. The Yankee is no more surely the descendant of the original Puritan than is the lung plague of Brooklyn the descendant of the *Lungen-seuche* of Germany.

"But this is not what troubles us. The pestilence may devastate the stables of the New York and Long Island dairies at its own sweet will; it may spread over the State of New Jersey until the inspectors allege that in many counties no less than 20 per cent. are infected; it may ravage Eastern Pennsylvania, Delaware, Maryland and Virginia, and may invade the District of Columbia itself—all this and much more may befall us; we may remain month after month, and year after year in the most imminent danger of having the affection carried out to our Western plains, whence we could never eradicate it. This concerns us but little; but that England should for a moment suppose that we harbor such a disease, is a scandal and an outrage, and must be repudiated and denied with all possible vehemence. Our own veterinarians, who have studied the disease both here and in Europe, and who have acquainted themselves with its history on both continents, are to be silenced, that we may listen complacently to those who sit composedly at a respectful distance—at Toronto (Canada) and Edinburgh (Scotland)—and without personal examination of history, progress, symptoms or lesions pronounce oracularly that we 'are not dealing with the contagious pleuro-pneumonia of Europe.' This action is altogether too much like that of the hunted ostrich, which buries her head in the sand in the vain hope of warding off her fast-advancing fate.

"I still cling to the hope that this plague has not penetrated the West—a hope supported by the entire absence of any contagious lung disease in Western cattle stopped fifty miles west of New York, as also by their constant soundness on their arrival at our Eastern stock yards, and until they have been long enough there to develop the disease. But I do not contradict the conclusions of Professors Brown and Duguid, and of the Principals of the Edinburgh and Glasgow Veterinary Colleges, when they state that they found contagious pleuro-pneumonia among imported American stock. It is time enough to pronounce upon a disease when one has personally investigated it. Any reasonable man will admit that it is not impossible that there may be one or several centres of the lung plague in our Western States, or in Canada, whence some of the exported cattle were drawn. With the disease existing on our Eastern seaboard for thirty-six years, and affecting at different times, to my certain knowledge, high class herds from which cattle were likely to be drafted for transport westward, it seems almost miraculous that it should not sooner have gained the Western States and spread widely. But besides this there are various ways by which the 'Ontario' cattle may have been infected. We have no assurance that this disease does not exist in Canada. A few years ago the *aphthous fever*, incomparably less insidious and less dangerous than the lung plague, was exported from Great Britain to Canada, whence it spread widely over New York and New England. The importation and secret existence of the lung fever is a thousand-fold more probable.

"But these are not the only likely channels for infection of the exported cattle. Who can assure us that infected cattle never entered the stock yards at Portland, Me? Since the commencement of our work in New York we have had cattle sent to Maine under *permit*. Did such an occurrence never take place before, and without any professional vigilance and control? Again, who can assure us that the 'Ontario' never on any previous occasion carried cattle from any other port which infection was likely to reach? Who can demonstrate that the barge that carried the cattle to the 'Ontario' had not become similarly infected? Who can certify that neither of these vessels ever carried infected hides or other animal products to or from England or elsewhere? Who can tell whether the cars used for the transport of the cattle had ever carried infected cattle or hides? Who can deny that the attendants on these cattl

in transit may have carried infection in their clothes?

"Many of our writers seem to lose sight of the fact if it were established that the cattle on board the "Ontario" and Brazilian suffered from lung fever, it is far from being proved that this disease exists in our Western States. It would be ample ground, it is true, for a searching investigation through our Western herds, but no proof at all that these herds were really infected. But to return to the infected districts in the East. Any one who will consider for a moment, must see that the opinions of Professors Williams and Smith, as to the nature of a disease they have never seen, and the descriptions of which have come to them only through newspaper paragraphs, are not worth the paper they are written upon. It must be evident to all that men who will found their opinions on such a slender basis are very unfit objects of public confidence. Seeing Prof. Smith is no further off than Toronto, and that he is so deeply interested in this disease, why did he not come to New York in person and satisfy himself as to the true nature of the malady, rather than hug his ignorance and publish an implied censure on the veterinary authority of New York, whose ability I do not for a moment believe that he doubts. By paying attention to what has been already published by the New York authorities, he could have ascertained the truth; but he has chosen to persistently shut his eyes and call for an experimental transmission of the disease by cohabitation, as if that were not seen and demonstrated every day, and on a larger scale a thousand-fold than could be done in a few experimental animals under the eye of an expert."—[Illustrated Journal of Agriculture.

[We believe we have been only doing our duty in calling the attention of our Government to this disease; also to the Foot and Mouth Disease and Hog Cholera. We unhesitatingly say that the authorities who have attempted to slight and discountenance our remarks have not acted as friends to the farmer. Judicious steps should be taken to prevent the introduction or spread of any of those dangerous or contagious diseases that are known to exist in the States. We do not consider that sufficient caution is being exercised.]

We extract the following from the Globe:

"A Mr. Driscoll left British Columbia some time since with seventy-eight horses. He reached Winnipeg with only thirty-eight of his valuable stock. The remainder, forty in number, perished on the journey from foot disease and other causes. The loss is estimated at nearly \$4,000."

When in Manitoba we heard that glanders had done considerable damage to stock there. Question—What disease were these horses affected with? We should know more about these diseases, for when once seated in our country we cannot estimate the loss that may be sustained.

A PLAIN CASE.—A friend, who has thoroughly tested the comparative value of beef cattle, says that his late experiments are the most conclusive of any he has tried yet. He had several grade Short-horns and an equal number of common steers, of the same age. He gave them the same feed, grazing and treatment, in every respect. When he put them into the market at the same time he found that the lot of Short-horn grades had increased 708 pounds, while the lot of common steers had increased but 502 pounds on the average. He sold his grades at 3½ cents per pound, and he could get but 2½ cents for the common steers. This is a plain case. Now let any one count the difference, and he can decide whether he can afford to fritter away his time and feed with common stock, when he can buy Short-horns, now so cheaply, to produce grades with. Both lots of cattle were fair representatives of their class.—[Ex.

The best floor for cow stables, according to a correspondent of the Cultivator, is made of concrete, "or what is simpler and cheaper, a mixture of gas-tar and sand, with a little cement in to harden it." How to put it down is thus told:—This can be laid immediately on the ground. Its advantages are that it is easily kept clean, either by scraping or washing, and all the manure is saved, none of it leaking through the floor, and thus being lost. This floor can be laid by anybody.

Why Stock Farming is Better than Grain Farming.

The following article on this subject, which we take from the National Live Stock Journal, though more applicable to more western Provinces and States than Ontario, is applicable to all parts of this Western Hemisphere, enforcing counsels that the FARMER'S ADVOCATE has repeatedly given. Look to the meat market, and not the grain market, for your profit in farming.

The advocates of stock breeding and feeding as being more desirable farming than making grain growing a specialty, need not be without a reason for the faith that is within them. It is not a mere blind assertion that the former will pay better than the latter in a series of years. It has not simply "happened" that this has been true in the past. It can be shown that the principles of good business management strongly favor the plan of making live stock a prominent feature on the mass of farms of the country. There are many farms of which this is not true, but they are in the minority, not the majority.

It is an obvious principle that if we have to transport our products, especially long distances, it is wise to reduce the weight and bulk as much as possible. This the farmer does in a marked degree where he feeds his grain and grass to animals instead of selling these products. The compensation is most marked where the product of the animal, as wool or milk, or, better, its products, butter and cheese, are sold; but the homely proverb, that the best sack in which to ship corn to market is a beef hide or hog skin, expresses a truth forcibly if not elegantly.

The one great disadvantage of western agriculture compared with that of the east, is the great distance from the great markets for farm products. Complaints of too high charges for transportation have been very common. A difference of even a small fraction of a cent in the freight charges per pound, for shipping corn, may decide whether the crop is to give a profit or loss, for its value at starting is now less than half a cent per pound. A like difference would be less important in the case of pork, beef or mutton, still less in the case of cheese, butter or wool. Here is one indisputable advantage the farmer has. It is a generally recognized rule that the selling price of any article is largely affected by the time, labor and skill required to produce or reproduce it.

Training a Colt to Harness.

Never try to beat a colt into doing a thing, for, if nervous, he may turn out a vicious horse, and if stupid he may become stubborn. Remember that by patience and gentleness he can be got to do anything that will not hurt him.

When the horse shows signs of shying at an object, do not beat him, but lead him up to it, allowing him to stand and look, as he comes closer; and after he examines it a few times he will not fear anything of the kind again. In passing by hedges with a colt, throw in stones and stop him until he takes no notice of the noise.

Before putting on any article of harness, let your colt smell it, and then rub against his head, neck and body.

Always start a horse with the voice, never with a cut of the whip. In starting, turn a little to one side, and in stopping, when going up hill, do the same.—[London Agricultural Gazette.

In experimenting with a pig, Mr. Lawes found that 500 pounds of barley meal, given as freely as it could be eaten, increased his weight from 100 to 200 pounds in seventeen weeks. Had a longer time been taken in the consumption of the food, it is conclusive that a good portion of it would have been expended in the maintenance of the animal's existence, and not nearly the amount of fat been produced.

Prof. Arnold is authority for the statement that a thoroughbred Ayrshire cow of a good milking family, will produce six times her own live weight of milk per annum, on what would be called good, not extra, feed.

In Holland, where sand is more plentiful and cheaper than hay, it is used for bedding cows. This is said to keep the animals always entirely clean, and the milk never takes the odor of the stable.

Live-stock and English Agriculture.

The universal and never-ceasing necessity imposed upon the human race of supplying food for the sustentation of every corporeal frame has so quickened the energies and stimulated the intelligence of food-producers in all countries that agriculture and the kindred employments of bringing four-footed animals of all kinds to perfection have long taken their places among finished sciences. By means of extensive enclosures, large expenditure of capital in draining, improved systems of alternate cropping, ceaseless importation of foreign and increased elaboration of domestic manures, by the cultivation of root crops, ameliorated breeds of horses, cattle, sheep, pigs and poultry, the application of mechanical ingenuity to the improvement of agricultural implements, and by a judicious economy in seed and labor, an amount of new and efficient activity has, step by step, been called into being, with a view to enabling the British farmer to meet the discouragement of low prices, by the increased productiveness of the acres committed to his charge. Nor have the results attained been unworthy of the sagacious efforts put forth with a view to their realization. Not many days ago a prize-winning Clydesdale mare was sold by a Scotch farmer to Mr. Angus in Australia for 700 guineas, and it is incontestable that the domestic four-footed animals raised in these islands have advanced to a degree of perfection unexampled in any other country.

Indeed nothing is more certain than that the existing depression and hard times, through which the agricultural interest is passing, can alone be met by bringing increased capital and brains to bear upon the cultivation of fields; and the Royal Agricultural Society of England has played a distinguished and useful part in teaching the middle and lower grades of farmers that their sole hope of surviving consists in the adoption of systems practiced by their more wealthy and enlightened brethren.

In 1841 the average produce of wheat in England was but 26 bushels to the acre, and it was shown that if it could be increased to 27 bushels there would be an addition of 475,000 quarters to the nation's income, "worth, at 50s a quarter, about £1,200,000, which would be equal to a capital sum of 24,000,000 gained forever to the country by this trifling increase of the growth of one agricultural staple in England and Wales.

We noticed a 50-acre orchard of very large apple trees that had been devastated by the canker worm. Some portions of the orchard were nearly ruined before a remedy was found, but most of the trees were saved after being half stripped of their foliage, by showering them with water containing Paris green. The water was drawn to the trees in barrels and applied by means of a small force pump and rubber hose.

A WHEAT EXPERIMENT.—A committee of agriculturists in Michigan sowed 68 lbs. of wheat per acre in drills sixteen inches apart. The grain was hoed with a horse-hoe once in the fall and twice in spring. On another acre 90 lbs. were drilled in the usual way. The sixteen-inch drills gave 69½ per cent. more wheat than the eight inch, and the latter lodged badly, while the former did not at all.

THE CURRANT-WORM.—Superphosphate has been found a great protection against the ravages of the currant-worm. Spread it around the roots of the bushes and fork it in. It will also help the growth of the bushes and increase the size of the fruit.

Ireland has a larger percentage of its total area under cultivation than any other portion of the old world, viz., 77 per cent. England ranks next, and Denmark third. Holland carries more cattle to each 100 acres of its cultivated surface than any other country, viz., 29 head; Scotland carries more sheep per 100 acres, 150 head; and Belgium more horses, or 8 to each 100 acres.

The Science of Health says:—"If farmers would avoid suddenly cooling the body after great exertion, if they would be careful not to go with wet clothing or wet feet, and if they would not overeat when in that exhausted condition, and bathe daily, using much friction, they would have little or no rheumatism."

Oats cut ten days before getting fully ripe, and dried as hay, are thought by some to be better than hay and grain for horses.

Question for the U. S. and Canada.

SHOULD WE HAVE PUBLIC EXHIBITIONS OF STOCK THIS YEAR?

The stock business is draped in mourning, caused by diseased animals and diseased meat having been detected in the markets of the world. An American writer of known talent says that the most dangerous disease is still spreading in the States. Do not Exhibitions expose sound animals to danger, and are not these diseases easily transmitted? Is not one ounce of prevention worth one pound of cure? Cannot breeders select about as well from private herds, or by correspondence, as by exposing their stock to danger? Should not persons offering breeding animals for sale publish the following: "I have neither Pleuro-pneumonia, Foot and Mouth Disease, Hog Cholera nor Trichina in my stock or on my farm, and never had."

There have been three cases of Foot and Mouth Disease in Canada nearly 100 miles apart; there

Which Breed of Cattle the Best?

This is a question we are frequently called upon to answer, so we will give some of our ideas on this and kindred subjects.

It is an understood fact that the best-advertised breed of cattle usually holds the foremost place in the opinion of the general public, who discriminate but little, and care but little, except for names. Such a breed is lauded by interested parties to the skies. Their claims are equal to those of the boastful boy who said he could dive deeper and come up drier than could any other man. Now, it is one breed that attains this prominence, and then again it is another. The advertisements appear now in one form, and then in another, and always as skillfully disguised as may be, so as to inspire that confidence which is inspired by a fact or a truth. If it is the fashion to essay the tremendous yield, whether of butter or milk, or cheese or flesh, it makes no difference which; then the single cow can always be found who excels in the desired point, and is thrust forward as the representative of the breed. And this may be done in all honesty by otherwise reliable men,

says some one; and do you whose necessities require a large animal, and an economical shape, and a quick feeder, purchase a Jersey, and see if you can make money,—or perhaps you are making milk and supplying a cheese factory? "Oh, then," cries out another know-all, "buy a Shorthorn; for these cattle have not their equal. They can make milk and flesh and do all that their owner desires. There is no such cheese cow, no such butter cow," etc., etc. Or, the native cow,—so hardy; such good animals; nothing fancy here, but altogether lovely.

Does it occur to the farmer that all these breeds may be good in their place, and that while the Ayrshire cow may be the best for one locality, the Jersey cow will be better for another? That there are certain farms where the Shorthorn would starve and the hardy native could just survive? That skill has a market value, and that selection can build up a new breed? That the improved is always preferable to the unimproved, provided always that the improvement is in the right direction that you may require?

Which is the best breed of cattle? The breed that your circumstances require in every case;



NORTH DEVON BULL "SHELTO 2ND," THE PROPERTY OF L. E. ROSS, ESQ. AVON, ILL., U. S.

have been three cases of Hog Cholera 100 miles apart, despite all the technical names or evasive writings that deceivers may have attempted. We do not know of a single case of either at the present time, but they may be lurking unknown; therefore we commend caution. If we should once get these diseases seated in our country, we should not deem it as necessary to use caution as at the present.

Devons.

The Agricultural Gazette (Eng.), in speaking of the Royal Exhibition at London, says: "There are no prettier animals than Devon heifers—they are so free from the slightest approach to coarseness, so even and rich in their color, so level and true to type. All the class possess entries of great merit. The bulls were highly commended; the cows were very good; heifers, yearlings and calves were of fine quality."

Why not publish the record of your herd? we inquired of a friend but a short time since. "Oh, I shall wait until I get some big yield which all the papers will publish," was the substance of the reply.

Now, we hold that the whole system is wrong. If the honorable man desires truly to instruct the public, let him find the whole of the facts bearing on his herd, and not the selected facts, as is done by the selection of an animal. Let the farmer or the purchaser pass his judgment upon the averages and ignore the special performances of the special animal, or treat the information given as he would treat an advertisement. We do not refer here to those remarkable animals which occasionally appear, and whose performances may well excite comment as showing exceptional capacities, but to this indiscriminate system of puffing which fills so much of our agricultural press.

Which is the best breed? Certainly it cannot be the same breed for every one, no matter what he wants from it. A great deal depends on locality, much on the man himself, considerable upon the purpose for which the animal is wanted. Do you want beef? "Oh, the Jersey is the best breed,"

and here let intelligence and common sense have play. Do we want any breed at all? Why, my dear sir, you cannot help yourself. It certainly cannot be any injury to you that certain groups of animals have certain resemblances and are called by a certain name. Your scrub has ancestors and a lineage as truly as your most carefully-recorded thoroughbred; and because in the one case you know that the ancestry is good, it is by no means a depreciation over a pedigree of which you can know nothing. It is not required that a name be given for every distinct family of animals. When a native cow is of a fixed type, resembling her parents and transmitting her own resemblance, why then she is a thoroughbred, and none the worse for it, we hope.

If a native is better than a thoroughbred, why then a thoroughbred which cannot be depended upon to transmit qualities must be an improvement—the thoroughbred which departs the most from its type must needs be better still—and a thoroughbred good in itself which gives progeny of no value at all must be the best of all.—[Scientific Farmer.]

Traveling near Winnipeg, Manitoba.

We went nine miles out of Winnipeg on the Main Portage Road. This is the road on which most of the travel is done to and from Winnipeg. The rains again descended, and the roads were in too bad a state to induce us to go further. We turned and made back tracks. On our way back we met freighters that had just passed through one of the bad sloughs with twelve carts; we next met a lot of Frenchmen from near Ottawa, who had several carts drawn by one horse each; one cart had just been got through one of these sloughs with considerable trouble; the second one got stuck, notwithstanding that three men were wading through the mud pushing the cart as well as they could, and a fourth man was lifting one of the wheels. The mud and slush were knee high, and this black, sticky, waxy mud was plastered over these men from head to foot. But despite the oaths, sticks and men, they were stuck fast, although the horse did its best and the men also; it was no go. We stood to see in what way they would manage to get out. To our surprise they

his other enclosures. The M. P. P.'s wife collects the tolls, which would amount to a good sum if all would pass that way, but some cannot afford it and others will not pay. There were four more carts to go through; and not wishing to see the poor men and beasts in such a plight, we paid for them. We have often paid four times as much for not half as good a show as that was.

There were three men pushing the cart behind and one lifting on the wheel. Our artist could not show them all without hiding too much of the cart, etc.

This making horses draw by the tail is a common practice in Manitoba among freighters. They informed us that they often draw loads in that way that horses could not draw otherwise, and that a balky horse that will not draw by the collar will invariably draw for all he is worth when hitched by the tail.

We hear there are several people having dry ground or near-cuts who put up a fence and charge emigrants for going through, or let them stick, drown or starve.

These emigrants had many a bad place to pass

country. We shall treat on the bright side in due time, but we deem it proper to state a few remarks that we have heard, some of which, from our own observation, we fear are too true, namely, 1st, that the C. P. R. will cost us one-quarter more than it should do or would do if the contracts were let in a manner that would allow more competition; 2nd, that the Round-house is being erected to try to make a centre of business or city in a swampy or murky soil, when a good dry site is within two miles of it; 3rd, that a crossing could be made over the Red River and a canal and bridge constructed with the stone on the ground a few miles from where the line is to be built, which would much enhance the value of the road and the development of the country; 4th, that too many emigrants are dumped into Manitoba and left to the mercy of fraudulent sharpers to fleece them, many of whom a good detective could catch and eradicate from our soil; inefficient Government officials might be found among this class if an independent man were sent among them.

Some may think we have diverged from the



(Copyright.)

TRAVELING NEAR WINNIPEG, MANITOBA.

got one of the other ponies, tied a knot in its tail, took a rope made from buffalo hide and cut it into strips and twisted it; the rope was then made fast to the horse's tail and to each shaft. The horse hitched in this manner pulled with its utmost strength; we expected to see the tail or hairs separate from the horse; but no, the tail stuck fast and the loaded cart came after the tail. There was considerable thrashing, pushing and lifting on the wheels, and the mud and plight of men and horses were fairly beyond description or credence. We looked at the horse that had pulled so well by its tail, and except the coating of mud, he did not appear a bit the worse.

The men were mad and swore at the Government, and said the members of the Government ought to be hung; perhaps you may be inclined to that belief when we tell you that this scene took place at the corner of a person's land who puts M. P. P. to his name. The said dignitary had a dry corner on his farm through which emigrants were allowed to pass by paying 10 cents for a one-horse cart. A kind of gate is fixed with a rope tied round it, and the dry ground fenced in with

before getting to their destination. We have heard of some that were hunting land who had traveled and worked hard all day, and had only proceeded two miles.

The spot from which we took our sketch was at the corner of Sandy Murray's farm, a large land owner only about 4½ miles from Winnipeg, almost adjoining Deer Lodge, the residence of the Hon. J. McKay (pronounced in Manitoba McCoye); this gentleman's residence adjoins that of another senator, the Hon. A. Smith, called Silver Height. This is where the large dining hall had been erected in honor of Lord and Lady Dufferin, and where all the paraphernalia of style had been displayed at that time; 100 ox-carts formed part of the procession of honor. Some of these Senators, we hear, own about 100,000 acres of land reserved from the settlers that have to wade in mud to search for land on which to obtain a sustenance. Perhaps some of our readers may almost think with these Ottawa emigrants, as above expressed.

We fear we are using too much of the space in this issue about Manitoba, but we wish to arouse a proper spirit in regard to this great and valuable

sphere of this journal in touching on such subjects as the above, but we write for the farmers, and if we can improve their condition we believe most of our readers will not object to our deviation. We shall touch on the soil at another time.

(To be Continued.)

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Steadiness in Farming.

There are usually some crops each year that command high prices, however low other products may be. This is the case now with potatoes and barley, the price of which before this was flat. It is so in other years with other crops. The causes are various. The season is a principal one, being unfavorable for some special crop or crops, as now with the potato, which commands about double the usual price. Those who have had large yields of the tuber are fortunate; but the number of fortunate ones is comparatively small. The crop was but about half a one, thus bringing it on a level in income with other crops.

Now here is an advantage for the farmer if he knows how to avail himself of it. It is not, as is too commonly the case, to engage in large production of the crop, making it perhaps a specialty, which would at once bring down the price, often much lower than before. We have an example of this in the vacillation which attends hop-culture. The practice is a bad one, often ending in disaster. A steady course in farming is the only safe method, and assures a reasonable profit even in the most depressed times, with good management. This last—good management—coupled with thorough work, seldom fails in getting the benefit of the exceptionally high prices. Thus in a dry season the lightness of the grass-crop advances the price of hay, and to some extent indirectly the market for dairy products. With attention given to meadows so as to get established a good turf, and the use of fertilizers to keep it so, a fair to good yield is attained, surpassing the average by considerable; and thus the benefit of the increased price is largely realized. It is not the result of luck or accident; it is secured by making the means in hand available, keeping them up to their best, not always the richest ground or the highest feed, but adaptability so as to be prepared for all emergencies. Had this been done the past season with the potato in this section, there would have been a better crop, as with some now reaching an average, and others even surpassing it. It only wants a compliance with the natural requirement of this tuber—coolness and moisture, which depth of planting secures, as before expressed in these columns.

It is known that crops on undrained clay in a wet season suffer severely. If this covers a large territory, the product will be greatly lessened and prices go up embracing many of the various crops. Drainage is the remedy here, getting the benefit in much better yields; this in common with the possessors of sandy soil who make their harvest them—not the neglectful cultivators, but those who know how to adapt manure to sandy soil.

There are other things that influence the market (I mean as it relates to the farmer), all of which are more or less under the control of the occupant. I have mentioned barley; this is a peculiar grain, more particularly in connection with the market. Its great instability as an article of diet and as a feed for stock, and its fluctuation in the demand for malt depending upon the season in the consumption of beer, make it one of the most uncertain of the ordinary farm products. Hence there is too much or too little raised, according as the price advances or falls; and these perturbations are usually sudden and often extreme. The price is now at such a figure that the temptation, in these depressed times, will be too much for the easily-influenced who form the fluctuating element in farming, and in the spring a rush was made for barley which will overdo the thing and bring down prices to the other extreme, great loss and disappointment as usual following. There are those, however, who gain by the operation—they who make it a business to grow this grain, not as a specialty, but as one of the general crops of the farm. They get both the benefit and the loss which, with them, balance each other, and on the whole are a gain—this through good cultivation and large yields, with proportionate profit which attends the judicious increase of crops. The advantage is, that the high prices, often more than doubling, are realized, and with good yields at that, showing the importance of thorough cultivation and a steady continuance in raising the same crops, which, in mixed farming, embraces all, thus yearly meeting with crops of more or less advanced prices, and reaping all the benefit, which so excites the wavering that miss it. In this way, by a persistent course of the best culture, uninfluenced by fluctuation of the market, continuing under whatever discouragement to grow

the necessary products, there can be no loss ordinarily, while the highest price is embraced in such a course. It is here where the greatest and the surest prosperity is found. And it is not confined to mixed crops. The same principle extends to specialties, which also have their mutations, though less in number. Yet these mutations cause changes from one branch of farming to another. Thus the dairy is discontinued for more general farming, or some other specialty; so with sheep husbandry and other branches. These changes, unless made by shrewd persons for speculative purposes, are almost always for the worse. Each and all of the popular branches of farming, whether single or combined, pay, and can be made to pay well if persevered in and all the available means to advance them adopted. The inevitable demand is security for this, and the wants of man, so manifold, are security for the demand.—[Utica Herald.]

Use of the Roller—Wheat-culture.

It is no uncommon occurrence here to see the surface soil dry out by evaporation as deep as acted upon by the harrow; hence the roller should on all occasions follow seeding. Experience teaches that corn and potatoes (even in the garden), as well as other field-crops, are benefited by its thorough application, as it pulverizes and packs the surface, rendering it not so easily penetrated by our drying winds. It also leaves the surface smooth and more easily acted upon by the implements used in after-cultivation; and in the small-grain crops the smooth surface renders harvesting easier for teams and machinery. The facts can be made apparent at once by practice, and it would be to the interest of every western farmer to test them on every crop he raises. It has usually been the practice here, especially in broadcast sowing, to seed on the rough surface as left in plowing; but this practice has not placed the seed at a uniform depth. Without a smooth surface it would seem impossible to secure a proper uniformity in the crop, and I shall change my former practice and secure a smooth surface before fall-seeding commences. I think the crop must of necessity show a more uniform character. Investigate a field of growing wheat. Some of mine shows as high as twenty stalks from one grain of grass wheat-seeding, with heads from three to seven inches in length. Pull up a cluster of this kind and there are root indications that the seed was deposited and covered with about one inch of soil. A few feet distant are stalks of the same variety of wheat, with from three to twelve stalks to the grain, whose root indications point to a depth of one and a half to four inches. The greater the depth the smaller the number of stalks and the shorter the heads and straw. I have taken a deeper interest in my wheat-fields this season than formerly, and I think I am learning something. Perhaps this interest was awakened by the remark of a neighbor that I was "foolish to risk so much on winter wheat." I am sorry now I did not risk a little more and try the harrow on part of my grounds about the middle of April.

The potato crop, where the bugs are cared for, will be a heavy one, judging from present indications. The breaking season, which generally closes by July 1, has been more than usually favorable. The ground has been moist enough to make the work easy, and to assist disintegration.—[Cultivator and Country Gentleman.]

CANADA WHEAT FOR ANTWERP.—The Montreal Gazette says: "A cargo of Canada white winter wheat has been purchased in this city for shipment direct to Antwerp, at \$1.10, and further enquiries were made for No. 2 Canada Spring on Continental account. Other orders for wheat have been received here from Antwerp grain firms, and the probabilities are that this new export trade will soon develop itself into one of considerable importance to Canada. Antwerp ranks second only to Havre as a large Continental importer of grain, and Bordeaux third. Between July 27th, 1878, and May 2nd, this year, New York, Philadelphia, Boston and Baltimore shipped to Antwerp 2,300,000 bushels of wheat, and to Havre over 3,000,000 bushels. We are glad to see our exporters turning their attention to the Continental trade as well as to that with Great Britain, for there can be little doubt but that we have been somewhat remiss in allowing our neighbors to monopolize the former entirely, although we trust lost time may yet be made up."

American and English Farming.

The last number of the London Economist gives an interesting, and, as it would seem, very careful comparison between farming in England and farming in America. In England, one acre yields on an average thirty bushels of wheat, while in America it yields on an average only thirteen. The American farmer must, consequently, cultivate two and a half acres in order to produce the same quantity of wheat as the English farmer raises on one acre. How is it then, the paper asks, that the American farmer can, nevertheless, not only compete with the English farmer, but even beat him in his own market? The answer which first presents itself to this question is the enormous difference of rent in England and America, but this difference is, as the paper shows, nearly, if not altogether obliterated, by the cost of transportation from the Western fields to the English market. The real advantage which the American farmer has over the English lies in the cheapness of the cultivation. While the American soil needs little, if any manure at all, in order to yield an average harvest year after year, the English farmer must apply a heavy quantity of costly artificial manure to the soil every year, if he simply expects to have an average yield, and a similar cheapness reappears at nearly every point of the cultivation, excepting, perhaps, only that of labor. In the settlements along the Red river in Northern Minnesota, a plow may be run through the soft, alluvial soil for miles in a straight line without encountering a stone, a tree or a hill, a feature to which England does not offer the faintest approach. So is it also with our Canadian prairies of our great Northwest.—[The Factory and Farm.]

Sweating Wheat.

We notice by our exchanges that many of the farmers are again threshing from the shock and hauling their grain direct to market. Ordinarily this plan has some advantages to recommend it; but this year, when the wheat has been bleached out by hot suns and repeated rains, such a plan is not advisable. It should by all means go into the stack and undergo the "sweat" before being threshed and sold. This will in most cases raise the grade and save the owner 5 to 10 cents on the bushel.

The sweating process is one not generally understood. Taking either wheat or oats, or even hay, and stacking or moving them, in a short time it will be found to be undergoing what is commonly known as the "sweat." On opening the stack the straw will be found damp as well as the grain, accompanied by considerable heat, which lasts for a number of days. At such times it is difficult to separate the berry from the head, and it is seldom threshed by any good farmer until this period is past.

The result of this sweat is that the dead color of the berry is restored, while the kernel itself is filled out and is considerably plumper than when it went into the stack. But this is not all. During this period there has been a constant absorption by the berry of the nutritive elements in the stalk, rendered active by the fermentation, and this develops and ripens the kernel. Some question whether there is any more gluten added, but it is our opinion that there is, and it is richer in albuminoids, and will consequently make a higher quality of flour than if not stacked at all.

But the suggestion we desired to urge was that stacking would brighten the grain, which is this year mostly of a dead color, and add a few dollars to the revenue of the farm, which all will frankly acknowledge is always small enough.—[St. Paul Press.]

A terrible grain pest is devastating the cereal crops in the regions of Southern Russia. It is described as a small insect having case-covered wings, and the rapidity with which it propagates defeats all attempts at extirpation. Ten years ago the insect first appeared in Paurida; in 1876 it invaded Charkow, where it ruined the entire crop the following year. This year it is invading other large districts, and quite one-third of the entire crop of Southern Russia is threatened.

Barley is the only cereal grain that the United States imports. During the last three months of the year 1877 we imported 5,504,513 bushels, and during the corresponding months of 1878, 3,800,031 bushels. The cash paid to foreign countries for barley during these six months was \$7,091,468—a fact well worthy the attention of farmers in those sections adapted to the growth of barley.

Grass and Hay.

This is a subject that can never be unseasonable. It concerns us not merely in mowing time. The preparation of the land for seeding—the varieties of grasses—the method and time of seeding—the top-dressing and care of our hay-fields—all require attention. From the *New England Farmer* we take the following extracts on grass and hay:

We find little attention paid to the cultivation of grasses previous to the 17th century. Clover, as a cultivated plant, was not introduced into England till about 1640, and the white Dutch clover till 1700. We learn that in 1680, in England, was the beginning of systematic culture by the introduction of the perennial rye grass, and for many years this and clover alone were the only varieties cultivated, and not until the introduction of herdsgrass and orchard grass from this country, did grass culture take a grand start in agriculture. In our own country, the culture properly began by the disseminating of the seed in 1760 of timothy, herdsgrass (now known by either name), by an English farmer in Philadelphia; and in 1764 by the introduction of orchard grass in Virginia. Even the knowledge of the different varieties of grasses was then so meagre that the farmers in the colonial times would feed down all the ripening grasses so that kind nature could not replenish the barren fields by self-sowings, but as the grand science of agriculture began to be developed, we find the finer and more nutritious varieties began to be cultivated.

CULTIVATION.

The importance of the hay crop is such as to demand the most judicious and intelligent culture. In preparing the soil for seeding down to grass, the land is generally in one of these conditions, viz., sod land, summer fallowed and old cultivated soil. If the conditions of the soil are favorable to the growth of such small seeds, we consider the first method preferable. If the grass roots are too feeble for top dressing for another crop, then turn over the sod about five inches deep in July or August, with a good swivel plow; then put on the harrow and thoroughly pulverize the soil; then apply a liberal dressing of stable manure, or a heavy dressing of special fertilizer for grass, such as nitrate of soda with bone dust, etc.; harrow this in well, and leave the surface fine, light and level, and our field is ready for the seed. We recommend summer fallowing only when the land is filled with couch grass or other obnoxious plants.

HOW TO SOW

Is a very important part in the successful culture of grass, for we must study to know the nature of the soil of our different fields; also, the adaptation of the varieties of grasses to the soils best suited to their growth. At the very outset we say, that our farmers must sow those varieties of grasses that blossom at the same time, i. e., the early grasses by themselves, and the late grasses by themselves; also to sow a greater variety together, and a larger quantity of seed to the acre, than is generally sown, for "he that soweth bountifully shall also reap bountifully." We recommend the following formula for hay seed to the acre:

EARLY VARIETIES.	LATE VARIETIES.
Red clover.....10 lbs.	Herdsgrass.....14 bush.
Alsike.....5 "	R. I. bent grass.....14 "
Orchard grass.....1 bush.	Eng. redtop.....1 "
June.....1 "	
Perennial rye.....1 "	

In sowing down to permanent pastures, a variety of grasses which will ripen in succession is desirable, for we have varieties that are maturing in succession for nearly five months of the year. In late April we have the old spear grass in blossom; in May the white clover, sweet vernal and fox tail; in June a legion of varieties—the principal ones being June grass, orchard fescues, rye grass, red clover, and others; in July herdsgrass, bent grass and redtop; in August fowl meadow, blue joint and meadow foxtail. It is well known that any variety of grass will continue to grow if cut or fed off before it goes to seed, as the production of seed is the great end aimed at in nature.

Of the two hundred model farms in Ireland, most of them are more than self-supporting. The Government outlay for the whole is only \$30,000. One of them which has to pay a rental of \$20 per acre of its land, has, for some years, realized an annual profit of \$3,000. American agricultural colleges would do well to look after the causes of this profitability.

Gypsum on Mown Meadows.

If "land plaster" ever does good where Mr. Jos. B. Robinson's inquiries are dated—Venango Co., Penn.—then it will do good on his "clover and timothy meadow," sown immediately after a crop of hay has been taken off. If the weather should be warm and dry the effect of the gypsum will not be seen much at first, but when rain comes it will begin doing its good work. This wonderful mineral, that is of such great value to farmers generally, is slow in dissolving and requires much rain to bring out all its virtues. This fact has led most of the farmers of my acquaintance to sow it often, and in small quantities at each sowing. We have machines that will go over thirty acres a day, and so distribute a bushel of plaster that it is free from lumps, dry, and ground fine—that every part of an acre of grass will receive some of it. In other days, when the sowing of gypsum had to be done by hand, it was about the most disagreeable of the whole round of hard work on a farm. Then we put on three bushels and sometimes more to the acre, and looked for benefits lasting years.

Now we sow generally about a bushel on an acre at one application and sow oftener than we formerly did. Clover seed has been one of the leading crops in Central New-York for many years. We sow our clover seed on our Winter wheat in the Spring, and gypsum either very soon after the clover shows above the ground or soon after the wheat is harvested, being governed by the season somewhat in deciding to sow on the wheat in the Spring or after harvest. The next year we cut a crop of hay, late in June or early in July, and at once apply gypsum, and if we have rains soon, and insects do not destroy our clover seed, we harvest a crop of from one to five or six bushels to the acre, cutting the crop not far from the 1st of October. Though this method of using gypsum is not universal, yet it is one well approved. I have heard the celebrated John Johnston, of Geneva, N. Y., say that he would use gypsum on his clover if he had to pay \$40 a ton for it. This is the judgment of one of the most successful farmers I have ever known.—[G. Geddes, Onondaga Co., N. Y. Tribune.

Pastures.

The question is asked, What can be done with our old worn-out pastures, which are growing poorer every year for want of good and cheap top-dressing? Read what agricultural writers in England say of the Cheshire pastures by the use of ground bone as a top-dressing; their old pastures have increased in feeding stock from 30 to 50 per cent. Quite a number of farmers in Cumberland county tried it last year, by my advice, on a small scale, with satisfactory results, and will use larger quantities this year. You not only give your pastures a fresh start, but it is a dressing that will last quite a number of years, besides the properties of the bone enters the grass, thus giving the cattle in the natural way, what they very much need, and saves them bone meal in their feed. 500 to 1,000 pounds per acre would be a good and cheap dressing, as it would last for a number of years. Sow the bones broadcast as the young grass starts in the spring. As to hen manure the farmers here have used it with good success by composting with ground bone, ashes or lime, covering with loam or mulch to reduce to the proper strength and apply in the hills; this is one of our best fertilizers.—[Maine Farmer.

The Aftermath.

Mr. P. R. Smith, Mass., writes to an exchange as follows: I have a word to say in regard to the advantages of the aftermath or rowen which in old times was thought of much less value than the first crop, and was generally depreciated. Farmers now, many of them, object to cutting two crops of hay per annum because it exhausts the soil. My experience is that two crops of seedless grass do not make as great a drain on the soil as when it is allowed to mature its seed. When the first crop of grass is cut early, by which I mean when in full bloom, the meadow quickly springs up again and gives a second yield, which makes in many respects a better hay than the first did. Horses are fond of rowen; so are cows, which eat of it greedily and give a full flow of milk in consequence. I am convinced that there is much more value in the second crop of hay than farmers generally acknowledge or believe. Rowen does not cure so rapidly, perhaps, as the regular hay crop, but if cut the last of August or first of September, while the days are still long and the sun is hot, aftermath may be easily secured.

High and Low Farming.

Mr. Mechi, of Tiptree-Hall Farm, so noted in Great Britain as the introducer of what may be called the highest kind of farming, defines this subject as follows:

HIGH FARMING.

Drainage when required—Rectilinear fields of sufficient size, and a minimum of well-kept hedges or fences—Sufficient farm buildings and covered yards for an ample number of animals and farm machinery and implements—Security of tenure by a lease or by a valuation for unexhausted improvements—Plenty of well-bred stock, fed with purchased foods—Artificial manures as an aid—Much deeper cultivation by subsoil plowing, thus keeping the old seed-bed uppermost—Cleanliness by hand and horse hoeing—and, finally, A knowledge of the business of farming in all its branches.

LOW FARMING

is the opposite of all this. Unfortunately we have abundant evidence that, taken as a whole, low farming is the rule and high farming the exception. We have ocular demonstration as we pass by rail or otherwise through the country, and we have unmistakable annual statistical evidence that British agriculture is at a standstill—at all events as regards meat-making, which in my opinion means corn-growing.

The farmer who makes two pounds of meat instead of one evidently doubles his quantity of manure, and thereby increases his produce to a certainty.

The Wheat Weevil.

After wheat has passed safely through all the perils of the harvest and escaped the ravages of insects that wage war on the growing plant, a danger is not unfrequently in store for it when it has been deposited in the bins. This danger makes itself apparent by a minute white dust spread over the grain and a peculiar odor that permeates the bins. On passing a kernel between the fingers it crushes readily, exposing a mere shell partially filled with dust in place of a round, plump grain.

The little black beetles that laid in wait during the winter months come out from their hiding places in myriads with the return of warm weather. The female makes a minute incision in the grain and therein deposits an egg. As each female lays an innumerable number of eggs and the insects do not hesitate to penetrate the heap of grain in all directions, but few kernels escape. The eggs deposited soon hatch out maggots which bore into and consume the starch of the grain. By the time these pests are grown the grain is nearly or quite exhausted; the worms go into a pupa state and in a few weeks become weevils, which force their way out of the grain and seek some hiding place for the winter.

Farmers who anticipate trouble from these weevils resort to a variety of expedients. Among these is fumigating the bin with burning sulphur. Others sprinkle air-slacked lime on the wheat, and others again sprinkle it with salt. The surest way of avoiding the weevil is to change the place of storage. Fumigating the bins with burning sulphur, already referred to, is reported by many farmers who have tried it as effectual in preserving their grain from this enemy.—[N. Y. World.

Treating Meadows after Mowing.

As meadows are short, yet with a pretty even and good set, and as the time for applying manure cannot well be spared, and a good quality of manure (fine and rotted) is not always on hand, the next best thing and one of decided advantage is to sow plaster. Apply as soon as the crop is off. It is cheap, indeed the cheapest of all fertilizers, yielding much for the outlay where the land is adapted to it; and it is soon applied. Give double the quantity or more that is given to clover—from 200 to 300 pounds to the acre. Grass requires this. The sulphate is especially beneficial on clay land. Applying the same quantity to grass as to clover (and the grains are included among the grasses) has failed to show a satisfactory result, except where the quality of the plaster was superior, when a less quantity has the effect of a greater amount of an inferior article. All depends upon the proportion of the salt (sulphate of lime) in the stone. A good dose, even applied and covering all, with anything like favorable weather the remainder of the season, will forward and thicken the already good set, and secure another cutting if the first crop is removed sufficiently early, as it should be.

Sugar Evaporator.

The accompanying cut represents one of the evaporators used in the States. We are not aware of any crushing mills or evaporators being made in Canada, but hope to hear if any of our manufacturers are prepared to fill orders. The Blymer Manufacturing Company, of Cincinnati, O., make both cane mills and evaporators.

The evaporating pans are made of sheet metal, galvanized iron, or copper, of thickness proportioned to the size of the pan. At intervals of about six inches ledges are made to project upward across the bottom of the pan, the alternate ends being open, so as to form a continuous channel from one end of the pan to the other. The sides of the pan extend beyond the fire line of the furnace so as to give a cooling surface for the collection of the scum.

The juice is received into the front end of the pan in a constant stream. The first ledge preventing a forward movement, it flows across the pan,—turns round the open edge of the ledge,—back to side upon which it entered,—then round the second ledge,—thence back again to the opposite side,—and so on until it reaches the outlet at the finishing end of the pan, whence it flows off in a constant stream at any density desired.

The constant influx of the cold, raw juice keeps the liquid in the front end of the pan at a comparatively lower temperature while it is passing around the first few ledges, and thus gives time for the heat to throw up the more crude impurities, and the operator to remove them. And most of the skimming is confined to a small space at this end of the pan. As the current passes on over the more intensely heated portions of the pan, new impurities are evolved and borne by the current to the cooling sides, where they remain in the form of scum, to be removed at the pleasure of the operator.

There being but a small amount of juice in the pan, and that being spread over a broad extent of evaporating surface, every portion is subject to the direct and intense action of the heat, and consequently the evaporation is more rapid, and the defecation and clarification more thorough, than where the liquid is boiled in deep, narrow masses, and for a long time exposed to the heat. As the result, there is a better quality of syrup and of lighter color.

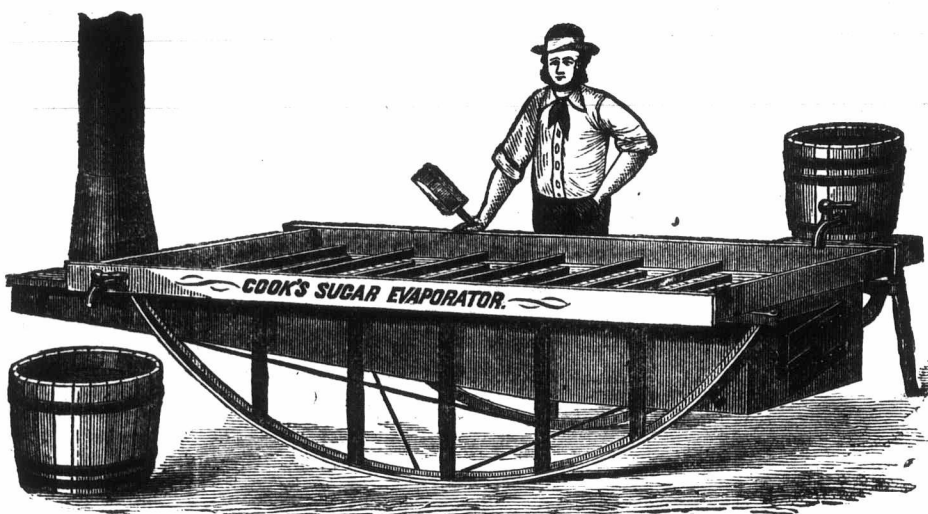
THE GREEN CABBAGE WORM.—Make a strong tea of dog fennel as follows:—A fifteen gallon kettle well filled with the stalks, leaves and blossoms of dog fennel, fill up with water, steep three hours over a moderate fire and pour off the tea. You will have ten gallons; give time to cool. Sprinkle this over the cabbage with a brush or old broom some clear morning after the dew goes off. You will have enough for eighty heads, one pint to the head; less will do if your cabbage has not commenced heading. Should the worms reappear, repeat.

Whether sweet corn is any better than any other variety for fodder seems to be a mooted question. We should take it in preference, experiments having been made with sufficient care to determine positively that it is better than common corn.—[Massachusetts Ploughman.

Harvesting Amber Cane.

As the manufacture of sugar from this new variety of sorghum is attracting much attention, the following notes on the manner of harvesting the cane, from a Minnesota farmer, will be interesting:

"I have always had the best results with ripe cane, that is, when all of the seeds are well formed and ripened. The first thing to be done, when your cane is ready to cut, is to procure good corn knives (old scythes will not cut cane well), and let two men cut together, taking two rows each, cutting the four rows side by side, and laying the cane on the ground in a windrow in the space between the two inside rows which are being cut, commencing at the first hills at the edge of the field—the first hill cut and laid down with the butts toward the standing cane. Cut the second hill, lay it down directly upon the other with the butts about one foot ahead the next hill; cut and lay upon this in the same manner, and so proceed until you have gone through the field, always lapping the last hill you cut, and lay down nearly one foot over the last one laid down, and always being careful to lay the canes straight, not crosswise the windrow, always letting the heads fall directly on the top of the windrow. This once well done, will be in a condition which will season out in a most admirable way, and is well protected from frosts. Should any frost overtake your cane and kill the leaves, before it is cut, by all means don't let it stand a day longer, but withdraw it at once. No matter if your cane is or is not ripe. The frost ripens it at once, and it must be cut.



Should a severe freeze come suddenly upon standing cane, which freezes the stalk through, then there is great cause for alarm, as all of the cellular tissues which hold the saccharine juices of the stalk intact then become ruptured, and the juice flows unrestricted within the pith, and being of a very perishable nature when exposed, it soon becomes sour. There is no danger at all of souring if the pith of the cane has not been frozen, and there is no occasion to worry yourself, or the manufacturer, to work it up, for it is absolutely safe, and makes a better syrup by lying several weeks after cutting.

"Cane should not be left in the windrow in the field, in the hot, drying winds and sun too long, as it will gradually dry out the watery portion of its saccharine juices, so much so as to materially injure its value. After ten or fifteen days from the time of cutting, according to the dryness of the weather, the cane should be examined for the purpose of ascertaining whether or not it is drying up. This may be easily determined by lifting an armful of the cane, and to an observing person it will quickly become apparent, as one will at once discover the difference in its weight, as compared with its weight when first cut. As soon as this difference is discovered the cane should be topped and hauled, and stored in sheds or barns, safe from frost, storms, winds and sun, securely packed away in a good dry condition to await the time when it can be put through the mill."—[Ex.

Almost any of the standard honeysuckles are suitable for hedges, if cut back from year to year. The Tartarian would, perhaps, answer as well as any; it is easily propagated by cuttings, layers or seed, in spring.

The Apiary.**Uniting Bees.**

BY C. F. D., NILE, ONT.

As the great secret in bee-keeping is strong stocks, I would advise you to unite all your weak stocks by putting two or three together. Uniting bees is much like introducing queens, inasmuch as no fixed rule can be given for all cases. If your bees are in frames, it is a very simple matter to lift the frames, bees and all, out of one hive and set them into another, where the two are situated side by side. Usually there will be no quarreling if this is done when the weather is too cold for bees to fly, but this is not always the case. If one colony is placed close to one side of the hive, and the other to the other side, and they are small enough for a vacant comb or two between them, they will very rarely fight. After two or three days the bees will be found to have united themselves peaceably, and the brood and stores may then be placed compactly together. If there are frames containing some honey that cannot be put in they should be placed in an upper story, or in the cover of the hive, and the bees allowed to carry it down. You should always look at them

twenty minutes or half an hour after they are put into one hive, to see that all is right. If you find any bees fighting give them such smoking with cotton rags that they can not tell "which from t'other," and after fifteen or twenty minutes, if they are fighting again, give them another "dose," and repeat till they are good to each other. I have never failed in getting them peaceable after two or three smokings.

If your bees are in box hives, I should say your first job on hand is to transfer them into frames, but if you will not take the

trouble to transfer them you may unite two or more weak colonies; thus, drive the bees up into an empty box (as in transferring), from the hive containing the least combs, and shake them in front of the hive into which they are to go; then smoke them with rags to give them all one scent. Some of the bees may return to their old stand the next day, where you should have a box to catch them; then take them back to their new stand and they will mark their new location and you will have no further trouble.

The Prospects for Honey this Year.

The prospect of a good yield of linden or basswood honey is very good. It rarely happens that these trees blossom as profusely as they are about to this year, even very young trees being covered with buds; and already their fragrant, delicately yellow blossoms which droop in graceful tassellike clusters, are unfolding their honey-laden depths, which the eager bees do not pass unnoticed.

The linden honey ranks very high, being light, good flavored, and free from the peculiar quality which makes clover honey, as well as some other kinds, leave a burning sensation in the throat; when first gathered it is very aromatic and possesses an agreeable minty flavor; it crystallizes sooner after having been gathered than do some other kinds, but now that the crystallization or "candying" of honey is very generally known to be an evidence of purity, this is no objection.

Dairy.

The Curd-mill—Its Improvement and Advantages.

BY PROF. X. A. WILLARD.

The curd-mill, though long in use in England, is comparatively of recent introduction in America. So late as 1866 there was not a single curd-mill on sale at any of our dairy supply stores, and one might travel among the dairies and factories for days without meeting a dairyman who had even seen such a machine.

In the "Old American Method" of making cheese a curd-mill was not deemed necessary, because in the system of working the curds they were kept loose by stirring, the particles not being allowed to pack or adhere together previous to salting. While scalding, the coagulated mass was stirred from time to time in the whey, and could be thus kept in a sufficiently-divided state, and as soon as the whey was drawn the curds were thrown upon the sink or drainer, and rapidly stirred or broken by hand until ready for salting, and, being thus in a finely-divided state, the salt could be incorporated pretty evenly through the mass.

As we began to improve our process and copy after the English Cheddar method for making our cheese, curd-mills became a necessity; since when the curds are allowed to pack, as in that process the breaking of the curd into fine particles by hand would require a large expenditure of labor, and still the work would not be likely to be so well done as when treated by this mechanical device.

The operation of the curd-mill is twofold. It not only breaks up the curd in a proper state for salting, but by its use (when the curd is further matured than by the old process) it liberates the gases which may have formed in the particles, and thus a solid-meated cheese is the result. As the Cheddar cheese of England is considered by English consumers as the highest type of cheese made, and as it brings the highest price in the market which we depend upon to take our surplus product, it is advisable for us to copy after the English method for making Cheddar cheese as near as possible, or as near as is consistent with our factory system. The curds then will be packed in the vat, and after being properly matured and allowed to develop the required acidity, they must needs be broken up into finely-divided particles, so that the salt may reach all parts alike. The "curd-mill" therefore becomes indispensable, especially in factories where large masses of curds are to be treated.

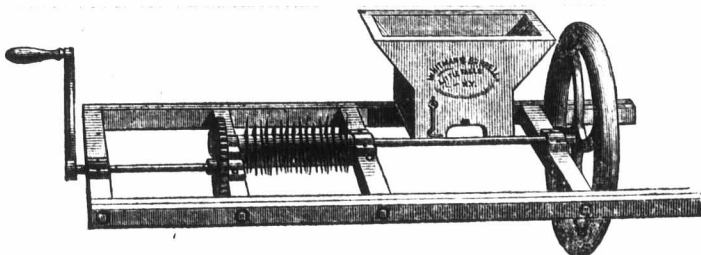
The old English curd-mill consisted of a framework, long enough to rest on the edges of the vat, and in which was placed a toothed cylinder, acting against toothed pieces in the frame, and, this being covered by a hopper, is fed through it with the curd, which is broken on its passage through the machine, and falls into the vat below. Several American curd-mills have been made, claiming an improvement over the English mill, inasmuch as the work is more rapidly performed, a matter of considerable importance in factories where large masses of curd are to be treated; but in nearly all of their contrivances the labor of working the mill

is quite arduous, and hence their use has been an objection in many factories.

Recently the "knife curd-mill" has been brought out, in which sharp cutting-knives or blades are used, both in the cylinder and on the grate, instead of pegs and bars, as in other devices. The subjoined cut will show the general form of this new machine.

The knives are set spirally about the cylinder, so as to carry the curd through rapidly. The grate also is a set of knives, and as the mill has all cutting edges a boy can easily grind the curds; whereas, by the old-fashioned mill, the grinding takes the strength of an able-bodied man. It is claimed that by the use of the improved knife curd-mill a larger quantity and better quality of cheese can be made than by using mills with pegs in the cylinders, inasmuch as the "knife-mill" does not tear the curd and squeeze out the oil, thus making a considerable saving of butter to the cheese during the course of the season.

Curd-mills are of especial benefit where cheese is made from "faulty milk," or when floating curds prevail; because by packing the curd, and allowing it to develop the proper degree of acidity, and then passing it through a curd-mill and separating it into fine particles, the offensive gas is liberated, and a fair quality of cheese will result. We do not make this point, however, for the purpose of relieving patrons from their responsibility in the care and delivery of milk. There never was a time when there was more necessity for the production and delivery of good milk to the factory than now. Prices are low for dairy goods, and the utmost exertion should be made to produce cheese



THE NEW KNIFE CURD-MILL.

of the finest description, since inferior goods must certainly entail serious losses. And we urge upon factory makers close attention to all the details of the "English Cheddar Process," being convinced, after years of experience and observation that cheese made under this method stands up best, can be more safely shipped, retaining its good flavor, is best liked by our English customers, and in fine, sells for the best prices in the English markets. As the curd-mill is one of the adjuncts to "Cheddar cheese making," it will be of interest to the dairy-readers of the *Advocate* to know what improvements have been made in this line. The Messrs. Whitman and Birrell, who have brought out this invention, affirm that "nearly all the cheese that has carried off the first premiums at the cheese fairs, was made with the use of their knife-mill." If this be so, its advantages should be widely known.

Garden and Orchard.

Seasonable Hints—August.

BY HORTUS.

It is still a good season to do any pruning that may be required amongst fruit trees. When the trees are in full leaf it is quite an easy matter to give them a thinning so as to give more light and air to the tree. Where trees have been planted too thickly it would be a good plan now to mark those not bearing good fruit, that they may be easily identified when the time comes for removing them, say in winter. A great many orchards are planted too thick. We think this a great mistake. It is far better to have one good healthy, well-developed tree, occupying a certain space, than if that space were occupied with a half-dozen spindly specimens, and it will also be found that the said good tree will bear as much fruit as the six others together, and of a much better quality.

We think it poor policy to crop orchards. It is simply robbing Peter to pay Paul. Growing any kind of crop takes from the soil what would necessarily have been used by the roots of the

tree. So what is gained by the crop is lost in the tree.

Intending planters should prepare the ground the season previous, having it well fallowed and manured. Draining is indispensable. To have the trees succeed well, procure all the ashes possible, to get and apply heavily to the soil. Many prominent fruit-growers are now alive to the value of ashes, as they find their trees and plants thrive beyond all expectation by the use of this cheap and convenient fertilizer.

Plantations of strawberries may be set out towards the end of the month. Select cloudy, and, if possible, wet weather, for the operations, having the ground in nice order beforehand. Too much care cannot be used in selecting a clean piece of soil for planting in; strawberries are awkward things to keep clean if the ground is very dirty. Planted early, the plants will make a good start before winter comes, and a fair crop may be taken from the plants the next spring. Nothing pays much better than strawberries, if they receive good treatment; the indifferent growers need expect but little profit, but the careful and anxious will reap a good reward. When growing exclusively for market we advise the mixing of kinds; that is, the planting of an early and a late kind together, for this reason: when only Wilson's Albany is grown the bulk of the crop comes on at once, glutting the market, and bringing prices so low as to hardly pay for the picking. We therefore advise the planting of two kinds, such as Wilson and Triomphe, or Wilson and Jucunda. By so doing you get the good price for the fine fruit of the early kind, and when its berries get small the other kind is ripening, and its large berries keep up the sample of your fruit. Another thing of importance is to have your strawberries either very early or very late. The most important feature in the successful cultivation of strawberries is mulching. Any clean straight straw will answer, and should be laid lengthwise with plants when the berries are forming, having the ground free of weeds before applying. Spent hops from breweries make a capital mulch.

The raspberry crop was greatly injured by the severity of last winter, still growers should not be discouraged, but redouble their efforts in its cultivation. This fruit requires to be growing in ground well drained, so that the canes for bearing the next season's crop may become well ripened. Pinching the tops assist their ripening very materially. Young plants of the Mammoth Cluster (the best black-cap), and other varieties of this class of raspberries, may be propagated this month by bending the tips of the canes and covering with a few inches of soil. The old fruit canes should be cut out to allow the young ones more room to grow.

Budding may still be practiced, and will be successful as long as the bark of the stock peels easily. Pear and apple stocks can be budded, safely up till September.

Every fruit-grower should make it a point to have a good fruit-room for storing fruit before marketing. Have it well ventilated. It should be kept thoroughly clean and sweet, as any bad odor soon impregnates and destroys the flavor of the fruit, besides hastening decay.

The latter part of August and beginning of September will be found a good time to transplant evergreens. They will succeed as well as if planted in Spring, merely requiring a little more care in shading and watering the roots.

Amongst the flowers much will require doing in the way of hoeing and raking. An occasional going over and pinching some of the tallest shoots back of geraniums and other plants will greatly improve the appearance of the beds. Ribbon beds are useless unless all the plants are kept at a uniform height in accordance with their habits, and in the order they are planted. Walks should be hoed and raked once a week. Many plants may now be propagated from cuttings for blooming indoors during winter months; place the cuttings in boxes of damp sand, and set in a shady place. Seeds of cinneraria, calceolaria, primulus, hocks, and other plants wanted for blooming during winter and spring months, should now be sown. Good directions will be found in any respectable seedsman's catalogue how to treat them; any lady following them carefully need not want for beautiful flowers during the dreary winter months.

Layers of shrubs or grapes made last month should receive an occasional watering if weather is dry.

Speaking of grapes, it will be well to go over the vines and pinch back any unnecessary growth and any weak shoots, thinning out the growth so as to help the fruit to ripen.

Rose Management.

A very successful rose grower sends to a friend the following account of his style of managing the rose. The friend says his plants are one mass of bloom from November till late spring. His method is as follows:—

"You ask me how I manage my roses to have them bloom in early spring. I prefer two-year-old plants, but use good strong one-year-old ones, if compelled to do so. I plant my roses out in the garden in the spring and do not allow them to bloom during the summer. About the last week of August or the first of September I take them up with all the soil that will hang to them, pot them and place them in a very shady place for about two weeks, out of doors, watering and sprinkling all the time. I now expose them to the sun, until the foliage falls off. All of this time they will be making new roots and the tops will be at rest. When the leaves have fallen, prune them. Cut back the young growth a little and then out the centre. Place them in the greenhouse about the 1st of October. If you use a flue in your house I would place the plants in the middle of the house, but if they are on benches over the pipes, put two inches or more of sand or tan under the pots. Do not attempt to force them too much, but give all the air possible in the day time. Great care should be taken not to sour the soil; syringe often. Soil is very important. If it be possible, get a lot of sods from the cow pasture, three or four inches thick, put them in a heap and add to them as one to four of cow and horse manure; turn this compost over three or four times during the summer, breaking up the sod each time. I never screen my soil for roses, nor do I use drainage in the bottom of my pots, but simply the old fibrous roots that I find in the soil at the time of potting. Turn out all of your roses as early in the spring as possible, prune off the long roots and follow directions as above given, and I will insure you abundance of flowers from November until March. I prefer to have my roses too dry rather than too wet."—[Gardener's Monthly.

A Wash to Kill Insects.

To each peck of lime add one lb. of flowers of sulphur; slack the lime and sulphur mixed, with boiling water sufficient to make a thin wash.

Apply this wash to the floors, perches and walls of hen houses, to grape vine stems, posts and slats, to the trunks of fruit trees, and wherever insects harbor to lay eggs or feed.

With a garden syringe the wash can be thrown on bushes, and in the tops of trees. By allowing the lime to settle at the bottom a clear liquid of limewater and sulphur can be drawn off, with which to syringe bushes or fruit infested with insects or with any fungoid disease, such as mildew or rot. This clear liquid is what may be called a form of sulphide of lime, which is a powerful destroyer of the lower grades of insect and vegetable life.

It is a good wash to destroy the cotton aphides which is beginning to spread quite rapidly over the white pines, and from thence to pear and other fruit trees. It is an enemy that ought to be promptly destroyed. Some persons keep the cotton aphides down by scrubbing the trees with a brush and soap suds.

The Verbena.

No low-growing flower can at all compete with the verbena for producing a continuous show of bloom throughout the season, provided it is properly grown; yet it is seldom seen in perfection. Formerly there was no question about it; all one had to do was to strike the cuttings, set out the young plants in any kind of soil, and a beautiful show of flowers would reward him. Not so now, as the rust, etc., will inevitably spoil all unless the greatest care is exercised. Never allow a verbena to "stand still;" keep it constantly growing. Use only healthy shoots for propagation, and so soon as rooted, pot off at once in light, fibrous loam. They do not relish a strong heat, but succeed best in a cool atmosphere. An English authority recommends watering exclusively with tobacco water, which, he affirms, will destroy all manner of insects as well as rust. Place the plants always near the glass, and as soon as they show signs of being pot-bound, shift them into a size larger. Select for your beds a new, turfy loam; they will not grow thriftily nor bloom satisfactorily in old garden soil; water during a dry time, and if your varieties are well selected your bed will be a constant feast.—[N. Y. Tribune.

Lime and Ashes for the Currant Worm.

When the pest first made its appearance in this neighborhood, about twenty years ago, I tried various remedies. Liquids were none of them completely successful, owing to the incompleteness of their application. The insect, being on the underside of the leaf, would too frequently escape his baptism with the fluid; hence your advice that "the powder" (white hellebore) "may be just as effectually syringed or sprinkled by mixing it with water," etc., does not correspond with experience. After being unsuccessful with various other remedies, I applied quick lime fresh from the kiln, and as soon as slaked threw right and left into the bushes, liberally, with a trowel; this has been a complete, cheap and ready remedy with me ever since. A second application, after a week or two, is usually needed. With this remedy I preserved my bushes and had good crops of fruit, for years, while my neighbors lost first their currants, and then their bushes. A slight dusting, over the bushes, is ineffectual; many of the worms on the under side of the leaves will escape it; but by throwing the lime into the bushes, as I have indicated, it rises up among them, so that none of them can escape being enveloped and destroyed.—[H. H. W., N. Y. . . . I recommend strong wood ashes applied when the bushes are wet; need not be afraid of putting on too many. It will not only destroy the worm but improve the productiveness of the bush. One application is usually sufficient if applied when the worms are young. That is the only remedy I have ever used that has always been successful. Apply as many ashes as will stay on the leaves.—[H. C. H., N. Y. Tribune.

Black Knot on Plum-trees.

This disease is well known to be contagious. It is not caused by insects, but is found to be the work of a fungus called *Sphaeria morbosa*, which is propagated by spores or seeds and spreads in the young wood by its thread-like roots. These cause warty excrescences several inches long on the sides of the branches, and are greenish and soft during the early part of summer, which attracts the curculio to deposit its eggs therein, especially when stone fruit is scarce. Other larvæ have also at times been found in these green knots, and this gave rise to the opinion heretofore held that insects were the cause of the mischief. It is found, however, that the disease originates under the bark, where insects can have no access. The spores of this fungus are said to ripen on the diseased trees during winter. Should the black knot be observed at any time, even in the bearing season, the knife should be at once applied and the knot burned.

Grafting the Cherry.

Mr. S. D. Larkin, of Delaware county, Pa., who has had much experience and remarkable success in grafting cherries, gives the following directions for performing the operation: Cut and not split nor tear the limb open. For a limb of over an inch in diameter set a cion on each side; cover all wounds with a wax that will not run in hot sunshine and will last for years, or till the wounds are healed. Don't do a limb here and there through the tree, but do them all, and don't fail in any, and then your tree is made and not wasted. Leave all the small twigs you can for shade till the grafts grow, and if any limb lies naked to the sun's direct rays, protect it with a paper or cloth stuck on with a little bit here and there of the wax that never flinches; and put on a ligature in place of the bark cut, on top of the wax, made of four parts resin, one part beeswax, one part pure linseed oil, for cold weather, or half a part oil for warm weather.

FOR ROCKWORK.—"Imagine a stately panicle of nodding bell-shaped pale primrose-colored flowers, each two to three inches in diameter, thrust up from amidst a tuft of bold pinnately-lobed leaves thinly clothed with light, reddish-brown or golden hues, and you have the *Meconopsis neofaulensis*." Its hardiness, after such a winter as the past, says the Gardener's Chronicle, is unquestionable. It would probably be impatient of stagnant moisture at the root. It is a native of the Himalaya, at a height some 10,000 feet above the level of the ocean.

Salt is an excellent manure for strawberry-plants after the berries have been picked. If applied before that time it causes such a growth of foliage as to prevent the berries from ripening.

GLEANINGS.

The potato crop in California has never been so large as this year, some sales being quoted at 25 cents per sack.

The Canadian Government has employed thirteen farmers to instruct the Indians on the North Saskatchewan Reservations in agriculture.

Quince cuttings should be entirely buried in the fall and the soil thoroughly mixed among them. In early spring take them up and plant out.

Water just tainted with kerosene and sprinkled upon the plants is pronounced by the London Garden as a remedy for ants upon the flowers of pot-roses.

Vick says, in a late number of his Illustrated Monthly, that there is no harm in hellebore when used for the currant-worm. No accident or injury has ever been reported.

The Maine Beet Sugar Co. will put in this year additional machinery, so as to be prepared to work 100 tons of beets per day, during the next manufacturing season.

Japan lilies are becoming great favorites owing to their large size and colors. They are hardy and need no protection in winter. They thrive best in partially-shaded situations, sheltered by shrubbery and other plants.

EVERGREEN HEDGES.—Meehan says evergreen hedges should never be grown square with level top, but to be successful and lasting the proper form is with a broad base and the sides sloping convexly to a point.

Cineraria and Calceolaria seeds may be sown in July, and even in August or September, and should be lightly covered and the surface of the soil kept damp, the seeds being so light and fine.

An exchange says it is a very curious fact that no insect is ever seen upon or known to destroy the common elder-bush of this country. If the leaves are sprinkled among other plants, insects give the place a wide berth.

France, Belgium and Cuba are said to be the only countries that produce a surplus of sugar for exportation above home needs. In the two countries first named it is beet sugar entirely, in the last named cane sugar.

The average yield of wheat per acre is 5½ bushels in Russia, 12 in the United States, 12½ in Austria, 13 to 15 in Canada, 16½ in France, and 29½ in Great Britain. In the United States the average yield might easily be doubled, but the cheapness of the land, the use of machinery, and the cost of fertilizers, makes it cheaper to cultivate larger areas rather than to work for large averages.

Plant raspberries in the fall 5 feet by 3, and blackberries 6 feet by 3. Apply half-rotted sawdust at the time of setting the plants; this makes an excellent mulch for clays and loams. If the canes are bent over and covered, or pegged down close to the ground, they will winter more surely. Some cover the tips and about two-thirds of the canes only.

A Maine farmer says: Were I to plant an orchard and had two locations, one in a valley surrounded by hills except on the south side, and the other a high elevation exposed to high winds, I would choose the latter in preference to the former. The great object is to keep back the blooming as long as possible, and this can be done best in northern exposures without shelter.

M. B. Bateham advises to wash grapevines with a weak solution of carbolic soap, as helping to counteract the work of the steel-blue beetle on the buds, and also as having a tendency to kill off the seeds or sprouts of mildew which exist on the bark and buds of the vines during the winter season.

WEEDS IN WALKS.—A sprinkling with a weak solution of carbolic acid with ten to fifty times its quantity of water, according to its strength, and applied with a brush or broom or fine watering-pot, will kill the grass or weeds which spring up on pavement or garden walks, and otherwise not harm anything.

THE SPARROW'S UTILITY.—Thirty-five years ago a countryman left here for Australia, taking with him all our popular hardy fruits and vegetables; but the produce was yearly destroyed until the English sparrow was introduced, after which there was plenty of fruit. Waterton calculated that a single pair of sparrows destroyed as many grubs in one day as would have eaten up half an acre of young corn in a week.—[Cor. London Times.



NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. 3. Do not expect anonymous communications to be noticed. 4. Mark letters "Printers' Manuscript," leave open, and postage will be only 1c. per ½ ounce.

Farming for Profit.

SIR,—Experience shows us that the best and surest way to make money from farming is by selling the products of the farms in fattened meat, yet more is required than fat meat. Neither the farmer nor any other man can live by that exclusively. He must have wheat, and for this purpose he must make manure to renovate the worn-out land and restore its fertility, and this can be best obtained by raising turnips for stall-feeding. As manure depends for its efficacy on the rich feed of the cattle, turnip-feeding is the necessity of the farm. Every one knows that raw or green manure does not possess the requisite constituents for a rich fertilizer without fermentation, and to obtain this it is necessary to turn the manure heap as soon as the frost leaves. Our farmers are now turning their attention to raising their potato crops on sod in order to save the manure for the turnip crops. The most obstructive difficulty in turnip-raising is the fly, and this can be greatly remedied by sowing guano or superphosphate, well pulverized, along with the seed, which stimulates its germination and growth, so that the plant is soon too strong for the attacks of its enemy. Turnip-sowing is quite a new art in agriculture. It was not till about the year of the battle of Waterloo that Calcy first sowed turnip seed in drills on the banks of the Tweed, on the border of Scotland. It was said at the time that he was too fast. P. F. Sussex Vale, N. B., July 19, 1879.

Coal Tar for Squashes.

SIR,—I have a promising crop of winter squash that I prize very highly, but the squash bug and borer are making sad havoc with them. Will you be kind enough to aid me by giving in your next issue some remedy. A. E., Blenheim, Ont.

[There are several preparations that will prevent and also kill the borer, the deadliest of all enemies to the squash plant, such as strong saltpetre and alkaline water, but they must be renewed often, as showers wash the salts into the ground. The most effectual remedy that we have had anything to do with is coal tar, a pint to four gallons of water, warmed in the sun to make the tar dissolve freely. In the application, hollow out the dirt for the space of two or three inches around the base of the stalk, and with a wisp of straw tied to a stick to form a brush, apply the tar water freely along the stalk for several inches, taking pains to stir the tar well into the water, so as to form a thin film of tar about the stalks. When the plants have all been treated, the dirt can be replaced as if nothing had happened, leaving a very unpleasant bed for the reception of the fly to deposit her eggs for her next generation. The tar will not injure the plants in the least, and one application answers for the season, saving much time and money.]

SIR,—Is there no effectual means of preserving our iron implements, such as plows and harrows, from being eaten away by rust? If you know of any, be kind enough to give the needed remedy in the ADVOCATE. A. B., Parkdale, Ont.

[The Journal of Chemistry gives the following remedy: Take any quantity of good lard, and to about every pound add of common resin an amount about equal to half the size of an egg (a little more or less of either article is of no consequence). Melt them slowly together, stirring as they cool. Apply this with a cloth or otherwise, just enough to give a thin coating to the metal surface to be protected. It can be wiped off nearly clean from surfaces where it will be undesirable, as in the case of knives and forks. The resin prevents rancidity, and the mixture prevents the ready access of air and moisture.]

Paint for Farm Buildings.

An old subscriber, Wardsville P. O., sends for the benefit of our other subscribers the following recipe for paint for farm buildings:

The following is a very cheap and excellent paint for farm buildings, forming a hard surface, and as its hardness increases by time, it is far more durable than paint.

Take freshly burned unslaked lime and reduce it to powder. To one peck or one bushel of this add the same quantity of fine white sand, or fine coal ashes, and twice as much fresh wood ashes, all these being sifted through a fine sieve. They should then be thoroughly mixed together while dry. Afterward mix them with as much common linseed oil as will make the whole thin enough to work freely with a painter's brush.

This will make a paint of light gray stone color, nearly white.

To make it fawn or drab, add yellow ochre and Indian red; if drab is desired add burnt umber, Indian red and a little black; if dark stone color, add lampblack; or if brown stone, then add Spanish brown. All these colors should of course be first mixed in oil and then added.

This paint is very much cheaper than common oil paint. It is equally well suited to wood, brick or stone.

It is better to apply it in two coats, the first thin, the second thick.

Petroleum as a Wood Preserver.

SIR,—Can you inform me of the value of petroleum for preserving wood-work, such as fences, barns and gates. YOUNG FARMER, Wyoming, Ont.

[W. J. F., of New York, in a communication to the Tribune, writes as follows: "It is strange that the value of petroleum as a preservative of wood is so little understood or realized. It is well known that in time it will leak out of the best wooden barrel, and that it will penetrate where water would not, and also that where it has penetrated water cannot come. It is not a paint, and it is useless to mix it with any pigment whatever, as it cannot be made to dry and harden on the surface. Four years ago I applied it as a priming to the siding of our house, which was badly weather-beaten, with paint flaking off, as is so often seen. I put on all that the siding would absorb, then left it to the action of the air and the hot sun for about six weeks. I then covered it with two coats of white lead and linseed oil, and it has stood beautifully. I also applied it to a line of rough picket-fence, afterward covering with mineral paint, as easily as if the boards had been planed. The wood-work of all my farm tools is kept full of it, and in drawing manure, when the liquids find their way into every crevice and joint of a wagon, I find it pays to be beforehand with a pint or two of petroleum. Finding my machine oil gone last summer in the hurry of harvest, I thought of the pail of petroleum, and pouring off the top, found at the bottom just what was wanted. In numberless ways has its value been proved to me, and a barrel of light petroleum is one of the things that I should not know how to do without."]

SIR,—By this mail I send you a small box containing some entomological specimens. Please let me know the names, scientific and English, in the next issue of the ADVOCATE, and oblige. C. J., Presquille P. O.

[Of the two specimens received one is the Cecropia Moth, an insect not at all injurious to agriculturists or horticulturists; and the other is the Canadian Buprestida, one of a family of which representatives are found in Europe and Asia as well as America. It is in the larva state that this insect is most injurious, when burrowing in the soft sapwood beneath the bark. When in great numbers, as is frequently the case, they kill many young trees by completely girdling them. Many remedies have been proposed for the protection of trees from their ravages, but the surest mode is handpicking. Steps should also be taken to prevent them from depositing their eggs upon the bark of trees. In order to protect the trees against these insects common soap is about the best remedy that can be applied, and no insects will lay their eggs upon trees treated with it. To use it, boil up as much as required to the consistency of a thick wash, and then with a broom brush over the trunks of the trees. This should be done three or four times during the summer.]

Bees and Grapes.

SIR,—I notice in the June number of the ADVOCATE that you ask for information regarding bees, as to whether they are injurious to grapes. The question as to whether the honey bee is an enemy to fruit of any kind, is no longer a debatable one in England, or in the vine-growing sections of Germany or France; nor in Italy, that land of flowers, where fruit and bees obtain perfection in close contiguity. We might point to California, whose apiaries astonish the world with their enormous productions, while her orchards and vineyards are laden with fruits in richness and delicacy the most favored part of the world cannot excel, as nearer evidence of the benefit and not the injury bees do fruit. Michigan, next to California in her honey-producing resources, as well as in the abundance and perfection of her fruit, has also only words of encouragement to the apiarist and none of censure to the bee. In all my experience as an apiarist, I have never found bees injuring fruit of any kind. I have seen them gathering the juice from grapes that had been injured, but they were doing no injury to the fruit; they will never molest sound fruit. C. F. D., Nile, Ont.

SIR,—As present appearances indicate a showery season, I would strongly recommend any farmer who may have a lot of last year's straw on hand, to utilize it by mixing with the hay, especially if it is clover hay. Place a layer of straw on the floor of the bay, then a layer of hay, salted at the rate of from one to two gallons of salt to the ton of hay; and so on till the bay is filled or till the hay is all brought in. The advantage of this way of curing hay is that it saves time, as the clover needs much less drying, the dry straw absorbing the moisture of the hay; and when it is wanted to be fed to stock, it should be cut down with a hay-knife and mixed together on the barn floor. By this means the straw is as good as the hay, and the cattle thrive as well as if they had hay alone. It would be still better, if the bay is a large one, if an empty barrel or two were set on end on the floor, and as the hay and straw are filled up about them, draw up the barrels until the hay is all in, when they should be taken out. This would leave a kind of flue for the escape of warm air, and prevent the hay from overheating. It will not do to mix straw with hay if intended for market, although even then the barrels might be used.

I think if any farmer who has no shade provided for his cows could see my cows standing quietly under the shade of some trees near the house to be milked, on these warm mornings with the thermometer up in the 70's, he would, if he had any real regard for his animals, soon provide some kind of a shade for them. If he has no driving shed, they might be driven into the stable to be milked. Of course I take it for granted that his cows have plenty of grass, without being reduced to the necessity of picking up a living on the road allowances, as is sometimes the case with many grubbing farmers, who prefer to lend their money at 10 to 25 per cent. interest rather than expend it in improving their farms, keeping better stock and providing better accommodation for them.

The fall wheat on the Indian Peninsula is heading out well. The heads are plump and well filled, especially the Clawson wheat, which is about a week in advance of the Treadwell, and if the weather continues dry and warm will be ready for the reaper in a week or ten days. It is often recommended to cut wheat eight days before it is ripe, as it saves shelling out, and the wheat gives less bran and more flour than if it is allowed to become fully ripe; but such flour is deficient in gluten, and will not rise so well in baking.

Spring wheat was sown late in some places, and is consequently rather backward. In other places where it was sown earlier it headed out about the 1st inst., and is now in bloom; and if the weather continues favorable for a week or two longer, will also fill out well, although, taken as a whole, I doubt whether it will prove an average crop.

Barley looks well; so do oats and peas, although the straw is rather short. Still with hay a full average, the cattle are not, on the whole, likely to suffer from want of forage next winter. There are generally some shiftless farmers who are careless about their fodder, and either from necessity or miscalculation of the quantity they have on hand, sell too much hay in the early part of the winter, and have to buy again in the spring. In some cases trying to winter too much stock may have something to do with it. July 17th, 1879. SARAWAK.

The Royal Agricultural Society of England.

[FROM OUR OWN CORRESPONDENT.]

London, England, July 7, 1879.

SIR,—The Royal Agricultural Society, this year under the presidency of the Prince of Wales, is now holding its international Show in the suburbs of the world's metropolis—the most spacious area ever occupied by such an agricultural display being covered by vast lengths of temporary buildings, from sound, well-built stabling to canvas-roofed sheds, far exceeding in total capacity anything hitherto witnessed at an exhibition of the kind. The Show grounds embrace 100 acres of level pasture land at Kilburn, in the northern part of London. The site is packed with steam engines and machinery, collections of home and foreign produce, live stock, implements, etc., and so numerous and bewildering are the exhibits that your correspondent shrinks from the task of giving your many readers the faintest idea of their attractiveness; in fact, space would not permit of it. A passing glance, as it were, must suffice. Turning either to the right or the left after passing through the main entrance, you pass a long succession of stalls of seeds, foods, manures, models, and other objects of interest and importance in agriculture or horticulture, and you find both on the right and left sides of the Show grounds hitherto unexampled arrays of agricultural machinery in motion. The seeds and models occupy 2,220 ft. lineal of shedding, and the ten sheds of machinery in motion measure 4,683 ft. in total length. Over a mile in length is crowded with steam engines driving more or less powerful machinery—every article claiming some improvement over that in common use. The ordinary stands of machinery and implements are arranged in lines at right angles to the main avenue, transverse avenues separating 14 long rows of sheds on the right, while as many avenues on the opposite side divide a similar number of rows of about the same length. These rows of shedding cover a total length of 16,000 ft., and some idea of the magnitude of the Show may be gathered from the fact that simply to walk along one side of each of the sheds (which are all packed with articles in as close order as may be consistent with their adequate display), would take a visitor a journey of 22,903 ft., or 4½ miles. The live stock occupy a total length of over six miles of shedding. Altogether there is said to be over twelve miles of sheds. The entries of cattle number 1,007—more than ever known at the Royal. There are 841 pens of sheep, and 211 of pigs. Horses, I am told, have not always been a strong feature in the Royal show-yard, but this year there are no fewer than 815 horses, ponies, mules and asses; the largest previous show of horse-flesh having been 424 entries at Birmingham in 1876. The total entries of live stock amount to 2,874—an average of 1,317 for the last seven years. The horses, cattle, sheep and pigs were truly magnificent in every respect, and the source of much wonder and admiration to your correspondent. The Queen had 15 entries in live stock, mostly Shorthorn cattle, but Her Majesty was beaten by the splendid contributions of her subjects. The Prince of Wales (who, by the way, takes a lively interest in all that appertains to agriculture) came forward with 20 entries, and in the matter of prize-taking was more successful than his noble mother. He took first prize for Clydesdale fillies, and a first and high commendation in the heifer class of polled Galloways.

A London journal says: "When the prize list is overhauled it is rather a matter of astonishment to find persons distinguished by birth and almost boundless means—devoted as much of their leisure and attention to wealth is to that truly aristocratic pursuit, the improvement of the land; as well as of all races of animals feeding thereon—should not more frequently succeed in beating competitors who have far less capital to work with and who must content themselves with farming at a profit to the exclusion of any such patrician ideas as honor and glory."

An interesting feature of the exhibition is a loan collection of ancient and modern English and foreign farm implements. Here may be seen the ugly, clumsy, worm-eaten wooden plow of days gone by alongside of the neat iron one of to-day. The col-

lection of old plows from all parts of the world once seen can never be forgotten. Every description of old farm machinery is there to excite one's curiosity. The display of modern implements is very fine, but nearly all that came under my observation I have seen in Canada. An American firm have a large number of reapers, mowers, chaff cutters, etc., on the ground.

The Americans also make their customary "big spread" in other parts of the grounds—particularly in the international dairy and bee-keepers' departments.

In spite, however, of glib tongues and flaring stars and stripes, I venture to say that Canada was more prominently placed before the public than the U. S. I shall never forget the squeezing and trampling I encountered in trying to reach one particular tent in the department for dairy produce. In this tent there were two monster Canadian cheeses, each weighing three-quarters of a ton, and the crowd that continually thronged there was something wonderful to behold. One man was incessantly employed taking orders for Canadian cheese. These monstrous specimens of dairy produce were made at the factory of Mr. George Morton, near Kingston, Ont., for Mr. Tubal Webb, of this city. Both cheeses were rich in quality, very fine in flavor, and perfect in condition. They were cut by electricity in ninety seconds—a feat that would take a man two or three hours to perform. Mr. Morton (above referred to) was also an extensive exhibitor in more portable samples of Canadian cheese, and his display was not only creditable to him, but to Canada at large. The Canadian cheese has been favorably commented on by all the leading journals of London.

The department for dairy produce also contains the first lot of Cyprus cheese ever introduced into this country. Each cheese is moulded into the size and shape of a pine apple, and is to be eaten grated.

There are two stalls on the grounds which attract a great deal of attention, and which from their novelty I cannot forbear referring to. At one a felt lined box hatches chickens and ducklings, which at once run about and seem to enjoy their newly-found life very much. At the other stall there is a contrivance for "fattening poultry by machinery." Every farmer, perhaps, has heard of the old barbarous custom of forcing balls of paste down the throats of turkeys to fatten them up for Christmas; but I am not sure that it was any more cruel than this new machine. It consists of a number of small pens revolving on a spindle. In each compartment a fowl is chained by the legs in solitary confinement. The attendant seizes hold of one of the birds by the neck, forces open its bill by a movement of the fingers, and then inserts down the throat a metal nozzle, through which a ration of a kind of gruel is forced by the pressure of the foot upon a lever connected with a reservoir. Fowls by this process, it is claimed, fatten in twenty days, fed thrice a day; ducks in fourteen days, fed four times daily. From 400 to 500 birds can be fed in an hour. The gruel is composed of barley meal, ground maize, milk and water. The French father both these stalls.

The exhibition is considered a grand success so far as the variety and number of exhibits are concerned, but up to the present it has been somewhat of a failure as regards attendance. This is owing entirely to the weather, the rain last week having been very heavy. In consequence the authorities have decided to prolong the Show until Thursday next. Since Thursday night last we have had splendid weather, and 40,000 and 50,000 people are now daily visiting the grounds.

DEVONIA.

Phylloxera or Grape-vine Flea.

SIR,—Some very promising grapes coming into full bearing in my garden are in a fair way of being destroyed by little insects that are eating the bark of the roots. Can you tell me any remedy?
GARDENER, Kingsville, Ont.

[The insect injuring your vines is the vine flea (Phylloxera). They have laid waste whole vineyards in France, and are causing some damage and great alarm in the United States. In France they have come to the conclusion that the destruction of the Phylloxera is an impossibility, but recommend the employment of alkalies as fertilizers to stimulate the vine and enable it to grow in spite of the insect. It may have been imported with the young vines from the States in your case. Hardy vines, luxuriant growers, are considered pretty safe from its attacks.]

Black-Leg.

SIR,—You would confer a great favor on an old subscriber and on others of your readers if you would give in your widely circulated paper some remedy for the black-leg in young horned stock.

STOCK-FEEDER, Shelbourne, P. Q.

[This disease is a very acute one and generally proves fatal, wherefore treatment will be of no avail unless resorted to in the very beginning of the disease. In fat and plethoric animals it is proper to bleed; but if this is not done in the beginning of the disease, it only tends to hasten death. Frequently showering the body with cold water is beneficial. The following physic may be given in one dose: One pound of Epsom salts, ten ounces of solution of aloes (made by dissolving an ounce each of Barbadoes aloes and common soda in eight ounces of boiling water), one ounce of spirits of turpentine, and half a gallon of thin, warm gruel. Shake this well together before drenching. Thereafter give, every two hours, half a drachm each of nitric acid and muriatic acid, mixed together with a pint of cold water. The animal may have all the pure cold water it will drink. A seton should be inserted in the dewlap. In fact, as a preventive measure, when this disease appears among a herd of cattle, it will be of great service to put a seton in the dewlap of all the young stock up to two years of age, and to give each one from two drachms to half an ounce of saltpetre, once daily, during the week. It will also be proper to remove the animals to a pasture some distance from the one on which the disease occurred.]

Lucerne.

SIR,—I read with interest your brief remarks about Lucerne, and wish to know something more of this plant. It is not much grown, so far as I can hear, on this continent.

X. Y., Prescott, Ont.

[Lucerne is a crop which was very fashionable 30 or 40 years ago, but of which we see but little now days. Some of the patches that were sowed with Lucerne in 1840-50 still produce excellent crops of forage, but in such cases the soil is deep and rich. None other should ever be selected for growing Lucerne. When the roots can run down some feet there is no plant which will produce more or better cow food. Probably the reason why so many undertook the culture of Lucerne and gave it up was the fact that they sowed the seed on shallow soil. In a congenial location Lucerne will yield half a dozen crops in one season. Cows are very fond of it, and it is pretty safe to trust to a cow's judgment as to the value of her food. It takes two or three years for Lucerne to get well rooted, so as to produce full crops, and this, probably, is another reason why its cultivation in this country is so unpopular. Americans want things to grow, like Jonah's gourd, in one night. We look to see orchard grass the popular soiling food of America.—Am. Ex.]

A subscriber says the most effectual means of fighting the potato bug is the following: Let every farmer plant a small plot of potatoes late in the season. To these small plots all the late broods will gather. These late broods supply the army that causes so much annoyance the following year. On these small late plots they can be easily exterminated, whereas without them they would go in to winter quarters and be ready for early work next year.

SIR,—I see a great deal of spring wheat that is not worth harvesting; and I see summer-fallows (as they are called) good for little else than to encourage weeds and Canada thistles to bloom on them. This is a sad state of things for the farmer who works the whole year round, and who expects to pay all living and other expenses by the fruits of his labor, and have "something to spare!" Now, sir, my advice to all such farmers is: Reduce the size of your farms one-half or more; ten acres well worked and attended to will secure you larger returns than 50 or even 100 acres merely skimmed over—the way a majority of the farms in this country are worked at the present time. Or, if you cannot dispose of your surplus acres, turn over a new leaf at once. Seed down 20 acres of your 100, work the remainder, tilling the 20 acres less and having 20 acres more pasture. You will then have better sheep and cattle, with less labor, and will raise more produce. Cultivate less and clean your farms, raise the best cattle, give your best personal attention to everything, and in ten years you will be a thousand dollars in pocket while the farm will be doubled in value.

LOBO FARMER.



The Family Circle.

"Home, Sweet Home."

MY FIRST AND LAST LOVE.

(Concluded from July No.)

"Well, yes," said Dot, looking demurely reflective. "She is peculiar, but attractive, and in your heart I believe you think so too, Charlie."

"I never could admire tall, peculiar women," confessed I, looking down with involuntary admiration at the fairy before me.

"Did you never admire a tall woman?" asked Charlie, quizzically.

"What a fool I was! Wasn't Dorothy tall—and hadn't I admired her?"

"It was a relief when Miss Fairthorn said—"

"Let us go to the drawing-room now, or we shall be scolded. Please give me your arm, Mr. Lester—I am tired of Charlie."

"Now, Dot," said Charlie, placing himself in front of her, and speaking with great emphasis: "Mr. Lester is my particular friend, and I will not let him fall into your clutches without warning. I know what miserable slaves you have made of those poor wretches who have been so unfortunate as to win your approval for an evening! Be content with knowing that in me you see one of those poor beings! In me you see the incarnation of misery! In me you see one whom your wiles have rendered more imbecile than nature made him—whose nerves have been shaken and whose constitution has been shattered ever since he first looked upon your fair but false face!"

As we entered, dinner was announced, and I took advantage of the confusion to keep in the background till the room was almost empty. Then aunt Eliza, seeing me, pounced upon me with a "Here you are at last, Mr. Lester! Please take in Miss Moore!" which I did, happy to have escaped aunt Mab's falling to my lot.

Miss Moore did her best to entice me into sharing her enthusiasm on the inexhaustible subjects of croquet and curates; but, finding that I did not play the one, and was indifferent to the other, she abandoned all further efforts at "conversation."

I now amused myself by looking round at the different guests, to try to find out which was aunt Mab; but my whole attention was soon absorbed by Miss Fairthorn, who sat opposite me. She was deep in a lively argument with George Stanford, who sat between her and Dorothy.

"Do you consider Miss Fairthorn pretty?" asked Miss Moore.

"I dare say many people admire her," answered I, hypocritically.

"I don't," said Miss Moore, emphatically. "I never believe in those innocent, artless creatures with baby-blue eyes! I admire Dorothy Spencer much more—don't you?"

I was about to make a slighting remark as to Dorothy's beauty—having heard that the sure way to please one woman is to speak disparagingly of another prettier than herself—but these words were arrested on my lips when I turned to look at Dorothy. I had never seen her look so beautiful. Her eyes shone with a soft light that love and happy love alone can kindle. I marked the joyous frankness of her manner, the happy blush upon her cheeks, the affectionate glances she cast at the many face of her lover, and I felt no pang of envy, for now I loved her only as a dear friend and Charlie's sister.

Her calm, graceful courtesy to all, her forgetfulness of self in her desire to make others pleased and happy, formed a striking contrast to the roguish waywardness and self-willed petulance of the fairy. One was noble, calm, beautiful—the other was simply bewitching!

Dinner over, we were not long in following the ladies. Miss Fairthorn was seated, keeping guard over an empty chair at her side, which was cunningly hidden by her gauzy dress. As her eyes rested on me, she swept her dress from the chair, and, with an almost imperceptible movement of her fan, invited me to occupy it. How I got across the room I don't remember, but I managed to reach the envied seat, feeling very hot and confused, but strangely elated. I was soon disenchanted by her saying, in soft, cooling tones—

"So good of you to come, Mr. Lester! I promised to reserve a chair for Charlie, and have had great difficulty in doing so; but you will keep it for him now—won't you?—and make yourself agreeable to me in the meantime;" and, settling herself comfortably in her chair, she turned to me as if expecting me to begin to amuse her at once.

"I am much flattered that Miss Fairthorn should condescend to make use of me," said I, with bitter emphasis.

"You don't seem to appreciate Miss Fairthorn's condescension," rejoined she, with a gay laugh and a glance so full of mirth that my ill-humour vanished.

Her blue eyes seemed positively to dance and sparkle in the candle-light—her rippling chestnut hair was bright as burnished gold. I gave myself up to the charm of being near her, and listened with astonishment to the brief sketches she gave me of some of the guests; for she displayed a bright wit and keen perception totally at variance with her careless manner and girlish appearance.

"I can't for the life of me make out which is aunt Mab," said I; "do point her out to me. I am wavering between that tall woman, gaunt and grim enough to be aunt Eliza's sister, who is talking to Mr. Spencer, and that fat one over by the piano, who, now I come to look at her more attentively, bears a decided likeness to that dangerous gusher, aunt Sarah."

"No, no," returned my companion, laughing and blushing; "aunt Mab is neither tall nor fat. I don't see her just now. But here comes Charlie. What a time you have been, truant!" she pouted, as Charlie came up. "I sha'n't let Mr. Lester give up his seat to you."

"They want you to sing, Dot," said Charlie, imploringly; "aunt Eliza has sent me for you. Do come—there's a trick!"

A brick indeed! What a lover!

Dot rose, and Charlie led her off in triumph to the piano, nodding to me as he went, and saying, "Now, my boy, you're going to have a treat!"

I don't know what she sang. Her sweet low voice rang out pure and full; its sympathetic notes made my heart thrill with something akin to pain. When she ceased there was a buzz of admiration, and she was surrounded by a crowd of moths all eager to singe their wings in the light of her eyes.

"Lucky fellow, Charlie Spencer," said a drawing voice close by me; and turning with a start, I saw that the chair she had just left was occupied by a young fop, one of the dandies of the neighbourhood.

"Why?" asked I, dreamily.

"Why?" repeated he, raising his eye brows superciliously.

"Why, to have such a charming creature for an aunt, to be sure!"

"What could the egregious fool mean?"

"Which aunt do you think so charming?" asked I, sarcastically.

"That's a queer question," said he, staring. "You must be difficult to please, indeed, if you don't admire Mabel Fairthorn."

Mabel Fairthorn! Good heavens! A thought too improbable to dwell upon flashed across me, and, rising abruptly, I caught hold of Charlie, who was passing, and, drawing him on one side, gasped out—

"Charlie, isn't Miss Fairthorn your future wife?"

"A man may not marry his—aunt," answered he, solemnly; and, breaking from me, he fled from the room.

I was completely bewildered. If Miss Fairthorn was really Charlie's aunt—and I could not bring myself to believe it—how could her name be Fairthorn? I decided to solve the mystery, and looked round for Dorothy; but, seeing Mr. Spencer taking his ease in a dimly-lighted recess, I joined him, and accosted him with—

"My dear sir, I cannot get any one to introduce me to your other sister. May I ask you to do so?"

"I thought I saw you talking to her a little while ago; but I'll call her over here. She is a dreadful flirt—wicked little Mab!"

Following the direction of his eyes, I saw Miss Fairthorn engaged in a sprightly conversation with half-a-dozen men; but, on Mr. Spencer beckoning her, she left them without a word of apology, and seated herself by him, her hand placed affectionately on his shoulder.

"Mab, this is Mr. Lester—Charlie's intimate friend."

To my astonishment the little hypocrite bowed as if she had never seen me before, and I looked as grave as a judge. I stammered some unintelligible words, which she did not notice; and then she began to rally Mr. Spencer, and accuse him of trying to have a nap in the corner. At last he was called away by aunt Sarah, and I tried to make my escape in order to collect my scattered senses; but Miss Fairthorn rose, and, taking my arm, with a most captivating look asked me to take her into the conservatory. I obeyed in silence; it was unoccupied save by Dorothy and her lover, who were stargazing in a sheltered nook. With a laugh, Miss Fairthorn drew me to the part farthest from them, and, pressing my arm gently, she said, in a coaxing voice which there was no resisting—

"Will you forgive us for the trick we have played upon you, Mr. Lester? It was all Charlie's doing"—this I didn't believe—"and I hope," she added, archly, "you don't find me so terrible as you expected."

"I have nothing to forgive; but I find you much more terrible than I had imagined," returned I, with a boldness I should never have believed myself capable of.

"Now you are going to punish me," she said, looking up smiling into my face; but, her eyes meeting mine, she blushed deeply, and proposed rather hurriedly to return to the drawing-room.

This did not suit me at all, and, to detain her, I was obliged to secure the hand that was fluttering on my arm. It fluttered still more in my close grasp, and an expression of mingled astonishment and confusion crossed her blushing face. Yes, no doubt she was surprised that a "clothopper" should so far forget himself; but I didn't care—I was reckless.

"Will you tell me," asked I, "how is it that your name is Fairthorn?"

"I am only Mr. Spencer's half-sister," she replied. "My mother married Mr. Spencer's father when she was very young, and after his death became Mrs. Fairthorn. I was the only child, and both my parents died soon after my birth. But," added she, in a softened tone and with glistening eyes, "I have been happy in the love of my half-sister, though one is so gaunt and grim, and the other is so dangerously gushing"—here it is my turn to blush—"and I love Mr. Spencer, who spoils me. As to Charlie and Dorothy, they are more like my my brother and sister than my nephew and niece. But tell me," she went on, in a lighter tone, "how you discovered who I really was?"

We talked merrily for what must have been an unconscionable time, for, on our re-entering the drawing-room, most of the people had gone, and the rest were going. Presently we all exchanged friendly good nights, and I quite forgot the resolution I had formed of leaving Cranbourne.

I was miserably unsettled during the next few days. My mood depended upon a word, a look from the most provokingly capricious little creature, aunt Mab. I know I am describing myself as a vacillating idiot, but I am positive that I had never really felt anything more than warm admiration and friendship for Dorothy. Now, however, there was no mistaking the fever that possessed me.

In another week I left for home, promising to return in August for Dorothy's wedding. I went away happy, for Mabel's manner had been kind and almost caressing to me during the last day or two; and, in answer to my whispered hope that she would be glad to see me again, she had given so soft a glance of encouragement, so gentle a pressure of her hand, that, emboldened and enraptured, I had actually dared to kiss her trembling lips.

I am no longer gloomy and discontented; for who could be either with such a bright, soft, cheery, loving companion as Mabel—no longer Mabel Fairthorn, but Mabel Lester—my Mabel—"MY FIRST AND LAST LOVE?"

THE END

Mother's Boys.

Yes, I know there are stains on my carpet—
The traces of small muddy boots;
And I see your fair tapestry glowing
All spotless with blossoms and fruits!

And I know that my walls are disfigured
With prints of small fingers and hands;
And I see that your own household whiteness
All fresh in its purity stands.

And I know that my parlor is littered
With many old treasures and toys;
While your own is in daintiest order,
Unharm'd by the presence of boys!

Yes, I know there are four little bedsides
Where I must stand watchful each night;
While you may go out in your carriage,
And flash in your dresses so bright!

Now I think I'm a neat little woman!
I like my house orderly, too;
And I'm fond of all dainty belongings;
Yet I would not change places with you!

No!—keep your fair home, with its order,
Its freedom from trouble and noise;
And keep your own fanciful leisure;
But give me my four splendid boys!

—New York Observer.

Parental Folly.

To compel a child to eat an article of food for which he has no appetite, nay, may have a positive disgust at the very thought of swallowing the hated mouthful. Parents do this from the very best of motives, thinking that it would add to their children's health or comfort in after life to have learned to eat the article in question. It is just as great an outrage to compel a man to eat a piece of fried snake as to compel a child to eat a piece of fat meat when his stomach revolts against it; the inhumanity of it is greater, because the child, unresisting and helpless, is made to comply by the one he loves best in the world.

The instincts of childhood should be held, in a measure, sacred to them; and it may be safe to say what nature craves the body has use for; what nature abhors the same body has no use for. Every man is at liberty to ride any hobby to death he chooses; if he wants to ride it to his undoing, he may have the right to do it, with some restrictions; but to "have a theory," and kill his child in the attempt to carry it out, to make it practical, is not to be applauded.

If a man wishes to teach his child to relish any article of food which he does not like now, a safe method of bringing it about is to take a long walk or ride, far from any human habitation, and after the child has been some time complaining of being hungry, present the article in question to him, and let him taste it if he will, and in a little while taste it again; in this way he may be taught to love it in a very short time. The conclusion of the whole matter is this: To compel the swallowing of a mouthful of food against the appetite or inclination for it, is certainly a wicked waste of that much; it gives no healthful nourishment to the body, is a violence to nature, a shock to the system, and invites loathsome, painful, and even fatal maladies.

EFFECTS OF PRIDE.—An ancient, rich, and distinguished individual used to say, "I owe my wealth and elevation to the neglect with which I used to be treated by the proud. It was a real benefit, though not so intended. It awakened a zeal which did its duty, and was crowned with success. I determined, if it was owing to my poverty, I would accumulate property, if extreme vigilance, industry, prudence, and self-denial would do it, which will not always. I determined, if it was owing to my manners, I would be more circumspect. I was anxious, also, to show those who had so treated me that I was undeserving such coldness. I was also warmed by a desire that the proud should see me on a level with, or elevated above, themselves. And I was resolved, above all things, never to lose the consolation of being conscious of not deserving the hauteur which they displayed over me."

"I am happy, Ned, to hear that you have succeeded to a large landed property." "And I am sorry, Tom, to tell you that it is groundless."

Minnie May's Department.

MY DEAR NIECES,—Two weeks ago I went to spend the day with a friend who lives in a quiet little town, and owns a very nice house with a large garden and orchard. I took some fancy-work with me, and after disposing of a tempting lunch Mrs. C— and I established ourselves in the cozy little parlor—I with my Java canvas and wool, she with her mending-basket.

"I never have time to do any fancy-work; when one has to darn for a husband and two children, there is not much time for fancy-work," said my friend.

"You have an overflowing basket of odds-and-ends. Let me help you," I responded.

Of course she protested, but I was firmly resolved to have my own way. The first thing I took up was a pair of socks, the heels in tatters, the rest not the least worn. My friend, Mrs. C—, was like many a young wife, who neglected darning at the proper time, and was most certainly never taught economy. I suggested to her my plan of saving so much darning, which is to line the heels of men's socks. You must line smoothly and deep. I know if you once try it you will never forsake a plan which will save so much time and labor. Save all the irredeemable socks to cut up into linings for the heels for the new ones. In knowing how to economize in a household, a family can live comfortably upon the salary that another would be wretched and starving with;—such is the importance of little duties done in season. When your sheets grow thin sew the sides together, and then cut down the middle and hem the sides. Of course this makes a seam in the centre of a sheet, but it will last a year or two longer by doing so. If a tablecloth is worn thin put a neat little patch on the wrong side, then darn neatly on the right side with fine cotton. When a cloth is past service for the table, napkins for the children or tray covers can be made from the best portions. For dish-towels buy crash by the yard; the material is much stronger than that which comes in the ready made towels. I know some house-keepers who never hem their kitchen towels or dish-cloths, and they wonder why they wear out so fast. If hemmed, they will last as long again. For dusters, use old shirt linings: when well washed sew them together into broad cloths. You will find these linings make the softest, nicest dusters you can use, and are useless for any other purpose.

MINNIE MAY.

Answers to Correspondents.

S. T. A.—"I have just received a light gray woollen suit which I find has several grease spots (machine oil, I think) on the front of the dress. Can you instruct me how to remove the spots?"—Apply French chalk in the powder with a flannel cloth to both sides of the material where soiled, and rub it well in. Then apply as much more chalk as will thickly cover the spot and lay the garment away for a few days. On brushing the powder out the grease will all have disappeared if these instructions are properly carried out. Should any trace remain make another application. Wheat flour or ordinary toilet powder, applied similarly, will in most cases prove effective.

MABEL D.—"To make nice jelly for patients who are fed on very simple diet?" Wash half a cup of whole rice and soak it two hours in a little warm water; add three pints of cold water and a little salt; simmer over a fire for half an hour, then boil until it is a smooth paste and the water is reduced one-half; strain through double tarlatan or similar material, and sweeten. If the patient for whom this is prepared has no fever the rice can be boiled in one-third milk and two-thirds water.

UNION.—A father cannot prevent his daughter, who is twenty-one, from marrying, even though her intended husband be under age.

G. E.—Remember the old adage, "Faint heart never won fair lady." Perhaps the young lady treated you coldly because she thought more of you than she was willing you should suspect on a first introduction. We have read of girls acting just in this way. So do not give up in despair at a first repulse.

MISS FANNY.—The registration of a letter does not insure its delivery, and in case of loss does not benefit the sender. It makes it possible to trace the letter from hand to hand and greatly lessens the chances of non-delivery, as it is generally an easy matter to find out who is to blame for its loss.

LUCINDA.—The marks of small-pox cannot be removed.

FRANK.—The origin of playing cards is not known.

Contributed Recipes.

GLENN COTTAGE CAKE.

Two cups of sugar, one of butter, four of flour; one-half cup of sweet milk; one-half cup of cream; the whites of five eggs; one teaspoonful of soda, and two of cream of tartar.

WHITE WEDDING CAKE.

One lb. flour; one of pulverized loaf sugar; three fourths of butter; two nutmegs; whites of ten eggs; ext. of lemon.

CHEESE PIE.

To make cheese pie, use four eggs; two cupfuls of sugar; one cupful of sweet cream; two thirds cupful of butter; one spoonful of flour; nutmeg to taste.

Another—One cup of sugar; one cup of butter; four eggs; one cup of sweet cream; half-cup of butter; one spoonful of flour; extract of lemon to taste.

BACHELOR'S CORN CAKE.

To a pint of sifted corn meal add a teaspoonful of salt; two teaspoonfuls of butter; quarter cup of cream; two eggs well beaten; add milk until it is thin batter; beat it well and bake in deep tins with a quick heat, and it rises like a sponge cake. The above is an excellent recipe.

POTATO SALAD.

Slice two or three large size cold potatoes; mash fine the yolks of two hard boiled eggs; mix with them pepper, salt, vinegar and oil to you taste; dip into this preparation the potatoes; chop fine a few leaves of lettuce; lay the potatoes on them and pour over them the sauce.

HOW TO MAKE AN OMELET.

Twelve eggs, well beaten; one cup of sweet cream, and a little salt; butter your dish, pour in this mixture, set over a slow fire, and stir occasionally until done.

Another—Six eggs, well beaten; with one teaspoonful of flour; one teacupful of milk; one teaspoonful of salt; beat this well; put the milk with the eggs just before you put it in to fry; you must have some butter, just enough to fry it; run a knife under the edge as it is beginning to fry.

Another—Take one teaspoonful of sugar and one tablespoonful of cream, to every two eggs; mix thoroughly and cook; serve with jelly.

CHARLOTTE J. BARCLAY.

PICKLED ONIONS.

Select small onions, remove with a knife all of the outer skin so that each will be white and clean; drop into brine strong enough to float an egg and let remain there six hours. Bring strong vinegar to a boil; add bits of horse-radish and cinnamon bark; with a few cloves and two or three red peppers, and pour hot over the onions, previously drained from the brine.

LEMON BEER.

Put in a keg one gallon of water, one sliced lemon, one teaspoonful ginger, one pint syrup, one-half pint yeast. In 24 hours it will be ready for use. If you bottle, corks must be tied down.

TO CLEAR CISTERN WATER.

To clear cistern water, add two ounces of powdered alum and two ounces of borax to a 20-barrel cistern of rain water that is blackened or oily, and in a few hours the sediment will settle, and the water be clarified and fit for washing, and even for cooking purposes.

REMOVING MAGGOTS.

It is stated that spirits of turpentine will effectually remove maggots when brought in contact

with them, and any trace of its presence will repel visits of the maggot fly. Corrosive sublimate is, by many, considered equally efficacious. It can be dissolved in water or alcohol.

FIT FOR A KING.

Put a pint and a half of milk on to boil in a thoroughly clean sauce-pan; sweeten, and flavor it with some orange-flower water, or any other essence. Beat up the whites of eight eggs until they are quite firm and crisp like snow. Put a tablespoonful at a time into the boiling milk, turning them a few seconds. Arrange in a pyramid on a deep dish. Let the milk get cool, and then make a custard with the yolks, and pour round. The whites should be beaten in a cold place.

GROUND TEA.

A French chemist asserts that if tea be ground like coffee, immediately before hot water is poured upon it, it will yield nearly double the amount of its exhilarating qualities.

WATERPROOF PAPER.

A good waterproof paper for covering jars used in preserving, etc., may be made by brushing over the paper with boiled linseed oil and suspending it over a line until dry.

STOVE POLISH.

The best black ink mixed with the whites of eggs makes a good stove polish.

Provincial Prize List Puzzle.

TO BE HELD IN OTTAWA SEPTEMBER, 1879.

Canada Co's Prize.....	\$60—G. D.
Prize.....	\$50—P. F.
Gold Medal.....	B. F.
Gold Medal.....	C. F.
Gold Medal.....	S. A.
Gold Medal.....	G. C.
Gold Medal.....	C. D.
Silver Medal.....	S. F.
Silver Medal.....	L. P.
Bronze Medal.....	P. F.
Bronze Medal.....	C. W.



H. F.

Show this list to any of your friends that are interested in the Provincial Exhibition. They may help you to decipher it.

The answer to this may be published, perhaps after the Exhibition, perhaps before.

Doing up Men's Linen.

A husband complained that his shirt bosom and collars were badly done up, and the case was referred to a knowing shirt-maker, and his answer was well worthy the attention of house-keepers:

"Yes," said the man, "the fault is with your laundress. While doing up your collars she stretches them the wrong way. Damp linen is very pliable, and a good pull will alter a fourteen-inch into a fifteen-inch collar in the twinkling of an eye. She ought to stretch them crosswise, and not lengthwise. Then in straightening out your shirt bosom she makes another mistake of the same sort. They also ought to be pulled crosswise instead of lengthwise, particularly in the neighborhood of the neck. A lengthwise pull will draw the front of the neckband somewhat under your chin, where it was never meant to go, and of course it spoils the set of your collar. With the front of your neckband an inch too high, and your collar an inch too long, you have a most undesirable combination."

The necessary changes were made in the methods of the laundry, and all was right with shirts and collars.

THINK.—Thought engenders thought. Place one idea upon paper—another will follow it, and still another, until you have written a page. You cannot fathom your mind: There is a well of thought there which has no bottom. The more you draw from it, the more clear and fruitful it will be. If you neglect to think yourself, and use other people's thoughts—giving them utterance only—you will never know what you are capable of. At first, your ideas may come out in lumps, homely and shapeless—but no matter, time and perseverance will arrange and polish them. Learn to think, and you will learn to write—the more you think, the better you will express your ideas.

Silence.

How eloquent is silence! Acquiescence, contradiction, difference, disdain, embarrassment, and awe, may all be expressed by saying nothing. It may be necessary to illustrate this apparent paradox by a few examples. Do you seek an assurance of your lady-love's affection? The fair one confirms her lover's fond hopes by a compliant and assenting silence. Should you hear an assertion, which you may deem false, made by some one of whose veracity politeness may withhold you from openly declaring your doubt, you denote a difference of opinion by remaining silent. Are you receiving a reprimand from a superior? You mark your respect by an attentive silence. Are you compelled to listen to the frivolous conversation of a fop? You signify your opinion of him by treating his loquacity with contemptuous silence. Are you in the course of any negotiation about to enter on a discussion painful to your own feelings, and to those who are concerned in it? The subject is almost invariably prefaced by an awkward silence. Silence has also its utility and advantages. And first, what an invaluable portion of domestic strife might have been prevented, how often might the quarrel which by mutual aggravation, has, perhaps, terminated in bloodshed, have been checked at its commencement by a judicious silence! These persons only who have experienced them are aware of the beneficial effects of that forbearance, which to the exasperating threat, the malicious sneer, or the unjustly imputed culpability, shall never answer a word. Secondly, there are not wanting instances where the reputation, fortune, the happiness, nay, the life of a fellow creature, might be preserved by a charitable silence.

Something Worth Knowing.

People in general suppose by extracting and insulating what they conceive to be the nutritious principle or principles of any alimentary substance, they are able with greater certainty and effect to nourish the body of the sick and delicate. Thus we continually hear of strong beef-tea, pure arrow-root jelly, and the like, prepared with great care for such persons. But it will surprise many, to hear that a dog, fed on the strong beef-tea alone, rapidly emaciates, and dies within a short period; and that precisely the same consequences would ensue on confining the strongest man to the same food. It is also a fact that a dog fed on fine white bread (usually considered by far the most nutritive kind of bread) and water, both at discretion, does not live beyond the fiftieth day; and a rabbit or guinea pig, fed on best wheat alone, dies, with all the symptoms of starvation, commonly within a fortnight, and sometimes much sooner. The same effects follow if they are fed on oats or barley singly. An ass fed with rice boiled in water does not survive above a fortnight. The reason of all this is, that diversity of food, and a certain bulk, are essential to nutrition. It follows that strong soup, beef-tea, arrow-root, and animal jellies, and such articles of food, should at all times be taken with some alimentary substance, and particularly with bread.

INQUISITIVENESS.—The man who wants to know about things. We have all seen him. Have all "been there," as they say in the beautiful West. A dear son of New England having plied a newcomer in the mining region of Nevada with every conceivable question as to why he visited the gold region, his hopes, means, prospects, etc., finally asked him if he had a family.

"Yes, sir," was the reply. "I have a wife and six children, and I never saw one of them."

Then there was a brief silence, after which the bore commenced: "Was you ever blind, sir?"

"No, sir."

"Did you marry a widow?"

"No, sir."

Another pause.

"Did I understand you to say that you had a wife and six children living in New York, and had never seen one of them?"

"Fact."

"How can that be?"

"Why," was the brief reply, "one of them was born after I left!"

"How dare you say that I never open my mouth without putting my foot in it?"—"I hope you will forgive me, for when I said that, I had never seen the size of your foot."

Mothers and Children.

It is singular, but it is no less a fact, that in reference to juvenile folly, frequent instances of mistaken management proceed from the laudable anxiety of the mother to encourage the tender sympathies of children towards each other. We have seen her bestowing praise and admiration on those who had made little sacrifices to please their younger brothers and sisters, or who bestowed caresses and signs of affection on them; and we have seen the sacrifices repeated, and the caresses bestowed for the very purpose of exciting attention and admiration. And thus the very feelings it was the intention to call forth and strengthen have been smothered and nipped in the bud, by a rising emotion of selfishness and vanity. Alas! that simplicity, integrity, and perfect uprightness of character should thus early be endangered.

With proper management, the affection and care of the elder children towards the younger will be a matter of course. The exercise of this affection will bring with it its own reward, and repay them for any little sacrifice of their own self-indulgence it required of them. We must suppose, however, in this case, that all cause of irritation of feeling has been carefully avoided. The judicious nurse will always render the baby an object of interest, and not of jealousy. The little ones may almost fancy they are helping to dress, to rock it, to protect it. The sympathetic and tender feelings of children cannot be too early or too carefully excited and cultivated, but must, on no occasion, be the object of notice or admiration.

A child may be very early trained to be obedient; but this training must begin in the earliest infancy. Accustom your child to understand, and to adhere to, a certain number of prohibitions. You have it always in your power to enforce obedience, by removing the child from within reach of the forbidden object. But this is not what we mean; as soon as you can, endeavour to render obedience to such prohibitions in some measure voluntary. Beware of compromising your authority by giving, at an early age, positive injunctions which you have not the means of enforcing; and, before you arouse a spirit of self-will and independence, by battles and contentions, in order to gain your point, create a certain habit of willing obedience, by exacting attention to those prohibitions, which will prepare the child for compliance, afterwards, with positive orders. You thus inure a child, in a certain degree, to practice a little salutary self-denial, and to impose a restraint on its own wishes in compliance with your order.

The habit once formed is found easy of practice, and the child, with, as it were, natural ease, carries out the precept as a part of its every-day life, unhesitatingly, and with a willingness which makes the doing a pleasure and the act a graceful concession.

Medicinal Effects of Onions.

A mother writes:—"Twice a week invariably—and it was generally when we had cold meat minced—I gave the children a dinner which was hailed with delight and looked forward to; this was a dish of boiled onions. The little things knew not that they were taking the best of medicine for expelling what most children suffer from—worms. Mine were kept free by this remedy alone. Not only boiled onions for dinner, but chives also they were encouraged to eat with their bread and butter, and for this purpose they had tufts of chives in their gardens. It was a medical man who taught me to eat boiled onions as a specific for a cold in the chest. He did not know at the time, till I told him, that they were good for anything else." A case is now under our own observation in which a rheumatic patient, an extreme sufferer, finds great relief from eating onions freely, either cooked or raw. He asserts that it is by no means a fancy, and he says so after having persistently tried Turkish baths, galvanism, and nearly all the potions and plasters that are advertised as certain alleviatives or cures.—[Hants Advertiser.]

A fat French lady despairingly says:—"I am so fat that I pray for a disappointment to make me thin. No sooner does the disappointment come than the mere expectation of growing thinner gives me such joy that I become fatter than ever."

"Julius, was you ever in business?" "Of course I was." "What business?" "A sugar planter." "When was that, my colored friend?" "Der day I buried dat old sweetheart of mine."

Pumice Stone.

Pumice Stone, a slag or cinder of some fossil reduced to the state we find it in, by heat, is a lax and spongy matter, full of little pores and cavities, of a pale whitish gray color; found near volcanic (or burning) mountains. It is not generally known, but really is, one of the most useful appurtenances of the washstand. Printers consider it next in importance to soap, and used in connection with it, it will remove the ink and other stains from the hands magically. It possesses a scouring surface for many purposes unequalled by any substance with which we are acquainted. In a pulverized state it is one of the very best for scouring grate bars, copper, brass, tin or wooden ware, where a finer polish is required than would be left by the use of common scouring sand. Many persons have a dread of cutting their nails or paring down corns on their feet with a knife; to all such nervous persons we can recommend this substance for rasping or filing down the nails to their proper lengths. For reducing corns there is nothing like it; in rubbing it over the hard and horny corn, it cuts off all that is objectional. The soft and fleshy parts that surround the corn yields to the pressure, while the corn is being reduced by the filing process. No person whose business requires him to stain his hands, and no practical farmer who works without mittens, and who desires to sit at his meals or read the papers with clean hands, will dispense with this useful article when once used. It can be obtained at almost any paint or drug store.—Ex.

THE REASONS WHY.—Somebody—a crusty old bachelor, of course—inquires why, when Eve was manufactured from a spare rib, a servant was not made at the same time to wait on her? Somebody else—a woman, we imagine—replies in the following strain: Because Adam never came whining to Eve with a ragged stocking to be darned, collar-button to be sewed on, or a glove to mend, "right away—quick now!" Because he never read the newspapers until the sun got down behind the palm-trees, and stretching himself yawned out: "Is not supper most ready, my dear?" Not he. He made the fire and hung the cattle over it himself, and—we will venture to say—pulled the radishes, peeled the potatoes, and did everything else he ought to do. He milked the cows, fed the chickens, and attended to the pigs himself, and he never brought home half-a-dozen friends to dinner when Eve had not fresh pomegranates. He never stayed out till 11 o'clock at a political meeting hurrahing for an out-and-out candidate, and then scolded because poor Eve was sitting up and crying inside the gates. He never played billiards, rolled ten-pins, and drove fast horses, nor choked Eve with cigar-smoke. He never loafed around corner groceries while Eve was rocking little Cain's cradle at home. In short, he did not think Eve was especially created for the purpose of waiting on him, and he had no idea that it would disgrace him to lighten Eve's cares a little. That is the reason why Eve did not need a hired girl, and from it may be inferred the reason why her fair descendants do.

SPIRITS OF TURPENTINE.—This is one of the most valuable articles in a family, and when it has obtained a foothold in a house it is really a necessity and could not well be dispensed with. Its medicinal qualities are very numerous; for burns it is a quick application, and gives immediate relief; for blisters on the hands it is of priceless value, searing down the skin and preventing soreness; it is useful for corns on the toes, good for rheumatism and sore-throat, and is the quickest remedy for convulsions and fits. It is also a sure preventive against moths; by dropping just a trifle in the bottom of drawers, trunks and cupboards, it will render the garments secure from injury during the summer. It will keep ants and bugs from closets and storerooms by putting a few drops in the corners and upon the shelves; it is sure destruction to bedbugs, and will effectually drive them away from their haunts, if thoroughly applied to the joints of the bedstead in the spring cleaning-time; and it injures neither furniture nor clothing; its pungent odor is retained a long time, and no family ever ought to be entirely out of a supply at any time of the year.

"If I am not at home from the party to-night at ten o'clock," said a husband to his better half, don't wait for me."—"That I won't," replied the lady, significantly; "I won't wait, but I'll come for you." The gentleman returned at ten o'clock precisely.

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES,—We frequently receive letters from old folks saying that they would be glad to try their heads at answering the puzzles, and regretting that they are debarred from the pleasure on account of their age. They are mistaken. This department is open to old and young, and will be glad to welcome even those in their second childhood if they can find either pleasure or profit in it. Every person who wishes to see how bright their wits may be will here find a fair field and no favor.

UNCLE TOM.

PUZZLES.

71—GARDEN PUZZLE.

1. A dairy utensil and a long breath.
2. A tree and a light Rhenish wine.
3. A color.
4. A contemptuous name for a servant and a Latin conjunction.
5. A sweet singer of the feathered tribe and an instrument disliked by horses.
6. A number and a part of the face.
7. A vegetable, to be in debt, and near to.
8. Large collections of birds or animals.
9. A harbor, a tree, and a kind of varnish.

72—MISCELLANEOUS ENIGMA.

I am composed of 36 letters.
 My 2, 34, 7, 24 is a verb.
 My 9, 27, 13, 26 is a bird.
 My 23, 6, 10, 35 is an animal.
 My 21, 28, 16, 18, 52 is a fowl.
 My 3, 19, 14 is a number.
 My 8, 12, 20 is a girl's name.
 My 15, 1, 22, 36 is an article of dress.
 My 5, 25, 31 is not ancient.
 My 11, 33 is a preposition.
 My 30, 29, 4 is a distorted mouth.
 My 17 is a vowel.
 My whole is a true saying.

H.W.G.

73—SQUARE WORDS.

1. To grow light, a measure of land, a legal instrument, space between one thing and another.
2. A metal, to wander, across.

74—ENIGMA.

My first is in room, but not in house;
 My second is in Greek, but not in Latin;
 My third is in dark, but not in light;
 My fourth is in trout, but not in pike;
 My fifth is in dock, but not in wharf;
 My sixth is in clod, but not in turf;
 My seventh is in think, but not in thought;
 My whole is the name of a place in Algoma.

75—SYNCOPEATIONS.

Syncopate to seize and leave to pant.
 Syncopate a color, and leave merry.
 Syncopate to stop, and leave to utter.
 Syncopate a vapor, and leave to join together.

M. S. McLARCEY.

SIX-LETTER SQUARE WORDS.

To linger; an eighth; slanting type; first cousin to genius; to prove; and exalts (transposed).

S. MARIE JACOBS.

77—SUBSTITUTE PUZZLES.

1. I had no ——— to cut a bunch of ——— in the garden.
2. His house stands on a beautiful ———, but his ——— is very bad.
3. The squire ——— have given a ——— towards such an object.
4. While I am writing puzzles in ———, the ground is covered with ———.
5. It is not ——— that you should ——— in such a strain.
6. I gave the boys ——— pears, and they ——— them.

GEORGE J. BELL.

78—CHARADES.

A little bird in winter will *first* before your door,
 But when the trees are budding forth he'll visit you no more;
 My *second* looks so clear and bright when you attend it well,
 And gratefully may help you then my famous name to tell.

II
 My first is very useful when you do not like the weather;
 My second is the link that binds my first and third together;
 My third is something like my first, though often used for scamps;
 My whole contains both first and third, and often follows camps.

J. P. O'HANLON.

79—CHARADE.

My first is slang for a gentleman; my second is a fish;
 My whole's polite or elegant; and what more can you wish?

THOMAS MARSDEN.



80—PICTORIAL REBUS.

Answers to July Puzzles.

63. Brandenburg. 64. Panorama. 65. Opinion.
 66. Sparrow. 67. No, yea, n. 68. Tooth-ache.
 69. Beard, bread, read, dear, dare, ear.
 70. Faint heart never won fair lady.

Names of Those Who Sent Correct Answers to July Puzzles.

Amelia V M Tegart, Rosie Palmer, Julie Seaton, Frank W Foster, Maud Wilson, H Young, Fred Turner, Andy Cameron, Hattie Fox, Clover Walker, Floy Crowell, Jennie Ward, Emily Potts, Theo Mitchell, Mabel Gordon, Willie Grey, Bessie Brown, Mary Hall, Jas Nichols, Chas F Chase, Mary Glass, Lizzie Cornell, Lucy West, James Dutton, Ella Cottingham, Thomas Ellis, Annie Graham, Jos Thompson, M N J, Fanny Arnott, Alice Clark, Henry Willis, Wm Russell, Bessy McFarlane, Elias Garden, John Rutherford, Sarah Vining, M P Weekes, Joel Stowe, F J Inch, Fred Mercer, Edwin Cooper, Minnie Gould, Annie Jones, Lucy Johnston, Royal Gratton, Peter S. McLaren.

Honorable mention is made of Minnie Gould, she having answered the greatest number of puzzles correctly.

HUMOROUS.

An old pioneer, who was something of a fatalist, lived in a region infested by Indians. He always took his gun with him, and once, finding that some of his family had taken it out, he would not go without it. His friends rallied him, saying that there was no danger of the Indians, as he would not die till his time came, anyhow. "Yes," said he; "but suppose I was to meet an Indian, and his time was come, it wouldn't do not to have my gun."

A certain lady had a custom of saying to a favorite little dog, to make him follow her, "Come along, sir!" A would-be-witty gentleman stepped up to her one day, and accosted her with, "Is it me, madam, you called?" "Oh, no, sir," said the lady, with great composure; "it was another puppy I spoke to."

A lady who was suffering under a slight indisposition told her husband that it was with the greatest difficulty she could breathe, and the effort distressed her exceedingly. "I wouldn't try, my dear!" he soothingly responded.

"My dear," said a husband, in startled tones, after waking his wife in the middle of the night, "I have swallowed a dose of strychnine!" "Well, then, do for goodness sake lie still, or it may come up!"

THE FALL OF A FRIEND.—An Irishman having been told that the price of bread had fallen, exclaimed, "That is the first time I ever rejoiced at the fall of my best friend."

Boy with donkey—"Go for a ride, sir?" Jones.—"Nice figger I'd look on a donkey!" Boy.—"Yes, sir; cut out for a donkey, I should say, sir."

A Boy's Leisure Hours.

What a boy does with his leisure is most important; what he gets in school is mainly drill or exercise; it is a gymnasium to him; he must eat elsewhere. What he does with his spare hours determines his destiny. Suppose he reads history every day, or scientific books; in the course of a few years he becomes learned. It matters very little what he undertakes, Latin, Greek, Hebrew, Sanscrit, all disappear if he uses his spare time on them.

A coachman was often obliged to wait long hours while his mistress made calls. He determined to improve the time; he found a small volume containing the Eclogues of Virgil, but could not read it, and so purchased a Latin grammar. Day by day, he studied this, and finally mastered all its intricacies. His mistress came behind him one day as he stood by the horses waiting for her, and asked him what he was so intently reading. "Only a bit of Virgil, my lady." "What, do you read Latin?" "A little, my lady." She mentioned this to her husband, who insisted that David should have a teacher to instruct him. In a few years he became a learned man, and was a useful and loved minister of Scotland.

A boy was hired to open and shut the gates to let the teams out of an iron mine. He sat on a log all day by the side of the gate. Sometimes an hour would pass before the teams came, and this he employed so well that there was scarcely any fact in history that escaped his attention. He began with a little book on English history that he found in the road; having learned that thoroughly, he borrowed of a minister Goldsmith's History of Greece. This good man became greatly interested in him and loaned him books, and was often seen sitting by him on the log conversing with him about the people of ancient times.

A boy was employed in a lawyer's office, and had the daily paper to amuse himself with. He commenced to study French and at that little desk became a fluent reader and writer of the French language. He accomplished this by laying aside the newspaper and taking up something not so amusing but far more profitable.

OCCUPATION.—What a glorious thing it is for the human heart! Those who work hard seldom yield to fancied or real sorrow. When grief sits down, folds its hands, and mournfully feeds upon its own tears, weaving the dim shadows, that a little exertion might sweep away into a funeral pall, the strong spirit is then shorn of its might, and sorrow becomes our master. When troubles flow upon you, dark and heavy, toil not with the waves, wrestle not with the torrent, rather seek by occupation to divert the dark waters that threaten to overwhelm you into a thousand channels which the duties of life always present. Before you dream of it, those waters will fertilize the present, and give birth to fresh flowers that will become pure and holy in the sunshine which penetrates to the path of duty in spite of every obstacle. Grief, after all, is but a selfish feeling; and most selfish is the man who yields himself to the indulgence of any passion which brings no joy to his fellow-men.

A HINT TO GRUMBLERS.—"What a noisy world this is!" croaked an old frog, as he squatted on the margin of the pool. "Do you hear those geese, how they scream and hiss? What do they do it for?"—"Oh, just to amuse themselves," answered a little field mouse.—"Presently we shall have the owls hooting; what is that for?"—"It's the music they like the best," said the mouse.—"And those grasshoppers, they can't go home without grinding and chirping; why do they do that?"—"Oh, they're so happy they can't help it," said the mouse.—"You find excuses for all; I believe you don't understand music, so you like the hideous noises."—"Well, friend, to be honest with you," said the mouse, "I don't greatly admire any of them; but they are all sweet in my ears, compared with the constant croaking of a frog."

If you desire to enjoy life, avoid unpunctual persons. They impede business and poison pleasure. Make it your own rule not only to be punctual, but a little beforehand. Such a habit secures a composure which is essential to happiness.

Neither give so little of your society to a friend as to let him suspect you of neglect, nor so much as to surfeit him with your presence. A little fuel added to a fire will increase its intensity, but too much may extinguish it altogether.

Don't Leave the Farm, Boys.

Come, boys, I have something to tell you ;
Come near, I would whisper it low—
You are thinking of leaving the homestead,
Don't be in a hurry to go !
The city has many attractions,
But think of the vices and sins—
When once in the vortex of fashions
How soon the course downward begins.

You talk of the mines of Australia—
They're wealthy in gold, without doubt,
But ah ! there is gold on the farm, boys,
If only you'll shovel it out.
The mercantile trade is a hazard,
The goods are first high and then low,
Better risk the old farm a while longer—
Don't be in a hurry to go.

The great busy West has inducements,
And so has the busiest mart,
But wealth is not made in a day, boys,
Don't be in a hurry to start !

The bankers and brokers are wealthy,
They take in their thousands or so,
Ah ! think of the frauds and deceptions—
Don't be in a hurry to go !

The farm is the safest and surest,
The orchards are loaded to-day,
You're as free as the air of the mountains,
And monarch of all you survey.
Better stay on the farm a while longer,
Though the profits come in rather slow,
Remember you've nothing to risk, boys—
Don't be in a hurry to go !

Inherited Longevity.

Everyone has noticed that nearly all the members of some families die aged, while those of others are gone before what would be called the middle-age of the former. It is a common and correct remark that some are as old at 40 as others are at 60; the latter will in fact be more likely to live twenty years longer than the former. The years a person has lived is by no means the most important element for judging how many he may probably live; nor is the present health of much more consequence, since it is often the case that families are very vigorous and healthy while they live, yet are not long-lived; they inherit lively but short lives. Notice the Laplanders; observe the citizens of Zurich, Switzerland, very healthy but seldom reaching the age of 60; while members of one Italian family living in their midst since the sixteenth century reached the age of 80 or 90. The Welsh are the longest-lived people in Europe; the Scotch are longer-lived than the English, and the Irish shorter-lived—yet they are all healthy as a people. On the other hand, some who do not have robust health are noted to live long. It is said that they attain old age because they take such excellent care of themselves. Yet, though it is not denied that the care is useful, it will be found that they had at least one probably long-lived parent, and thus inherited longevity from one side, if not from both; for, though it is often the case that those die young who have long-lived ancestry, it is very seldom that any person lives to be more than a year or two older than any of his ancestors—parents, grandparents, etc.

KEEP THE HEAD CLEAN.—A distinguished physician, who has spent much time at quarantine, said that a person whose head was washed thoroughly every day rarely took contagious diseases; but where the hair was allowed to become dirty and matted, it was hardly possible to escape infection. Many persons find speedy relief for nervous headache by washing the hair thoroughly in weak soda-water. I have known severe cases almost wholly cured in ten minutes by this simple remedy. A friend finds it the greatest relief in cases of "rare cold," the cold symptoms entirely leaving the eyes and nose after one thorough washing of the hair. The hair should be thoroughly dried afterward, and avoid cold drafts of air for a little while.

"Please help a poor woman with sivin small children, all to—." Good-natured Old Gent (who knows her)—"Yes; but, I say, don't you think your family increases rather too rapidly? Last week it was only five." Biddy (not a bit abashed)—"Sure, and isn't it all the more reason why your honor should help me again?"—[Punch.

HOW SHE PLAYED THE PIANO.—It was a young woman, with as many white flounces around her as Saturn has rings, that did it. She gave the piano-stool a whirl or two, and fluffed down to it like a twirl of soapsuds in a hand-basin. Then she pushed up her cuffs as though she were going to fight for the champion's belt. Then she worked her wrists and hands—to limber them, I suppose—and spread out her fingers till they would pretty much cover the keyboard, from the growling end down to the little squeaky one. Then her two hands made a jump at the keys as if they were a couple of tigers coming down on a flock of black and white sheep, and the piano gave a great howl as if its tail had been trod on. Dead stop—so still you could hear your hair growing. Then another howl, as if the piano had two tails and you had trod on them both at once; then a grand clatter and scramble, and series of jumps up and down, backward and forward, one hand over the other, like a stampede of rats and mice more than anything I can call music.

TWO ROGUES.—A somewhat amusing incident is told of a woman whose husband, a wealthy man, died suddenly, without leaving any will. The widow, desirous of securing the whole of the property, concealed her husband's death, and persuaded a poor shoemaker to take his place while a will could be made. Accordingly he was closely muffled in bed, as if very sick, and a lawyer was called in to write the will. The shoemaker, in a feeble voice, bequeathed half of all the property to the widow. "What shall be done with the remainder?" asked the lawyer. "The remainder," replied he, "I give and bequeath to the poor little shoemaker across the street, who has always been a good neighbor and a deserving man"—thus securing a rich bequest for himself. The widow was thunderstruck with the man's audacious cunning, but did not dare to expose the fraud; and so two rogues shared the estate.

When the weather is wet
We must not fret;
When the weather is dry
We must not cry;
When the weather is cold
We must not scold;
When the weather is warm
We must not storm—
But be content together
Whatever the weather.

THE WIFE'S ECONOMY.—It is astonishing to see how well a family can live upon a small income when the wife and mother is handy, industrious, and economical. The husband may earn but six or eight dollars a week, yet they make a far better appearance than their neighbor who earns twelve dollars or more a week. This neighbor does his part well, but his wife is a good-for-nothing. She will upbraid her husband for not living as nicely as their neighbor, while the fault is entirely her own. The difference is that the one wife is a neat and capable woman, while the other is a whirlpool into which many silver cups might be thrown without the appearance of the waters being unchanged. For such a woman to talk of her love and devotion to her husband is but an insult to him.

A LUCKY DOMESTIC.—A contemporary relates an anecdote of an application received by a lady who had advertised for a parlor-maid. The person who applied, in answer to the advertisement, appeared to be quite satisfactory; but the lady wishing to say something kind at parting, remarked, "I am sorry to see by your black dress that you have been in trouble lately."—"Oh, no, mum, thank you, not at all," replied the young woman; "it's only for my late missus. I have been particular fortunate in service, mum. My last three missuses have all died while I was with them; so I got mourning given me every time." It is hardly necessary to say that the young woman was not engaged.

RATIOCINATION.—Country Doctor: Did you take that bottle of medicine to old Mrs. Gambridge's—because it was very import— Surgery Boy: Oh, yesser. And I'm pretty sure she took it, sir!—Country Doctor (after a pause): What do you mean by that, sir?—Surgery Boy: Well, I see the shutters up at the 'ouse as I passed this mornin', sir!—[Punch.

Horace Vernet, the artist, was one day sketching on the Lake of Geneva, when one of two young English ladies, who had also been drawing not far away, came up to him, and in an encouraging tone offered him some advice to his art. The courteous old painter listened respectfully, and when his instructress concluded thanked her very politely. Next day, on the Lausanne boat, the same young lady ran up to him, saying, "Oh sir! You are a Frenchman; you ought to know Horace Vernet, and they say he is on board this very boat; be good enough to point him out to me." "You would like to see him very much?" "Oh yes!" "Very well, mademoiselle, it was he who had the honor of receiving a lesson from you yesterday morning," responded the smiling Vernet. Probably that self-satisfied young woman never instructed another artist.

A farmer at Glenburn, Maine, purchased some supplies in Bangor, among which was a pint of whisky. To avoid breakage he placed the bottle in a box of rice, but found on reaching home that the bottle was broken and the rice saturated. He threw the rice behind the barn and a big turkey soon paid his respects to it. In due time the turkey became dead drunk, and was found in that condition by the farmer. The bird was still warm, and death evidently recent. The farmer would not eat him himself, but plucked him ready for market and left him in the stable. The next morning he found the bereft gobbler shivering naked on the roost, and looking on him with reproachful eyes.

A DUTCHMAN'S TEMPERANCE LECTURE.—"I sail tell how it vos. I drunk mine lager; den I put my hand on my head, and dere vos one pain. Den I put mine hand on mine body, and dere vos anoder pain. Den I puts mine hand on mine bocket, and dere vos notting. So I jine mid de demperance. Now dere is no pain in mine head, and de pain in mine pody vos all gone away. I put mine hand on mine bocket, and dere vas dwendy dollar. So I stay mid de demperance beeples."

That little girl must have touched a very tender place in her mother's heart when she said, after she had been punished, "Now, mamma, I wish you'd sing me a nice song." "And what shall I sing?" her mother queried. The child looked through her tears and replied, "Well, mamma, I think 'Rest for the Weary' would be appropriate."

"That's good butter," said Shrimp to his boarding mistress the other morning, as he transferred half there was on the plate to a hot biscuit. "Yes," said she, eyeing him sharply, "that butter cost thirty-five cents a pound." "Well," said he, scooping the remainder on to another biscuit, "its worth it."

"How long will it be before you get this work done?" said a lady to an apprentice who was painting her house. "Well, I don't know, marm," said he; "the boss has just gone to look for another job; if he gets it, I'll be done to-morrow, but if he don't, I'm afraid it'll take me all next week."

A prettily-dressed girl fell on a muddy street crossing the other day, and a gentleman hastened to her assistance. After cleaning off her clothes he asked her if he shouldn't escort her home. "No, thir," answered the dignified little damsel, "if you please we ain't been introduced."

"Mother sent me," said a little girl to a neighbor, "to ask you to come and take tea with her this evening." "Did she say at what time, my dear?" "No ma'am; she only said she would ask you, and then the thing would be off her mind—that was all she said."

Elder sister to little one, who appears to take great interest in Mr. Skibbens: "Come, little pet, it is time your eyes were shut in sleep." Little pet: "I think not. Mother told me to keep my eyes open when you aud Mr. Skibbens were together."

A gentleman noticing that his wife's bonnets grew smaller and smaller, and the bills larger and larger, calmly said, "I suppose this thing will go on until the milliner will send nothing but the bill."

A down-east lady has a husband who snores awfully. She keeps a clothes-pin under the pillow, and when he gets going strong she claps it on his nose and then sleeps in peace.

It is a fact fully understood by railway men that the lines having the most long tunnels on the route secure the bulk of the bridal-tour trade.

Good resolutions, like a squalling baby at church, always should be carried out.—[Keokuk Constitution.

Commercial.

Little Falls Cheese and Butter Market.

Reported for the FARMERS' ADVOCATE by PROF. X. A. WILLARD.

LITTLE FALLS, N. Y., July 26, 1879.

The cheese market on the first of the month opened weak, with a falling off from the previous week's prices of fully 1/4c, notwithstanding the fine quality of most of the offerings, which amounted in the aggregate to upward of 12,000 boxes. The top price was 5 3/4c, at which 2,600 boxes sold, and about 8,000 boxes went at a range of 5 1/4c to 5 5/8c, some 4,000 selling at 5 1/2c; 3,000 boxes were sent forward on commission.

On July 7th the market had a decidedly gloomy aspect, with slow sales and another decline of 1/4c. There was no fault to be found in the quality and make of the cheese, and the offerings were large, amounting to between 13,000 and 14,000 boxes, the bulk of which buyers pronounced strictly fine. Secondary and low grade cheese was almost unsaleable, buyers not desiring to risk handling it, except on commission. The top price was 5 1/4c for fancy factories, while considerable cheese of good quality was bought at 5c to 5 1/2c. Farm dairies, which were bought mostly to supply the home trade, went at 4 3/4c to 5 1/2c.

Although dairymen are feeling the pressure of low prices they are still making every effort to improve quality, and never before has there been such a general acknowledgement of the fact that to make poor cheese is simply ruinous.

Butter has kept up in price until this week, when rates dropped, for fair to good lots bringing only 12c to 13c, and the general impression is that prices had reach rock-bottom.

For the week ending July 19th, the market opened brisk, with an advance in prices over the previous week of fully 1/4c. The top price was 6 1/2c, while the bulk of sales went at 6 1/4c, and this was for prime cheese. Everything below extra, say from fair to good, ranged from 5c to 5 3/4c. The offerings were large, and nearly 13,000 boxes changed hands. The advance this week was rather a surprise, as the weather was excessively hot.

For the week ending July 26th, there was a decline from the previous week's rates of fully 1/4c all round, and sales were slow, buyers being cautious about handling anything but extra fine and fancy cheese. The offerings were large—14,000 boxes—and the top price for "fancy cheese" reached only 6c; good to fair lots of well made cheese went at 5 3/4c, and the range of prices for the day was from 5c to 6c, the latter being the leading rate. Farm dairying went at 4 1/2c to 5 1/2c, and butter at 12c to 13c.

The herds are now shrinking in their milk, as pastures have depreciated during the hot weather.

Dairymen feel quite confident of an advance next month, or at least before the September churn is ready.

We have recent advices from England. Our London correspondent says that American cheese is by far the cheapest in the market, and the extraordinary low prices defy competition, and buyers take freely under the impression that the lowest price has been reached. American extra fine is quoted at from 37s to 38s; fine, 35s to 36s; good, 32s to 34s, and common at 24s to 30s per cwt. English cheddar sells at 60s to 80s; Cheshire medium, 46s to 54s; Scotch, 40s to 56s, and Dutch Edams, 55s per cwt.

There has been an advance on Continental butter, and more is doing in Irish. Clonmels are quoted at from 90s to 104s; Corks, 84s; Leinster creams, 80s to 86s; Dorsets, 116s to 124s; Friesland, 90s to 100s; Danish 70s to 104s; American and Canadian, 60s to 70s; Creamery, 75s to 80s and old butter 28s to 32s per cwt.

London Markets.

London, July 28, 1879.

GRAIN.

Table with columns: Deihl Wheat, Treadwell, Clawson, Red, Spring, Barley, Peas, Oats, Corn. Includes prices per 100 lbs and per ton.

PRODUCE.

Table with columns: Apples, dried, pr bush; Apples, per bag; Chickens, pair; Ducks; Eggs, per doz; Butter, roll; do crock; Potatoes, bush; Cheese, lb; Beef, per qr; pr 100 lbs; Lard; Tallow; Hay, per ton; Straw; Dressed Hogs; Green wood, per cord; Dry do; Mutton, lb; Lambs, spring, per qr.

London Cheese Market.

The offerings at the cheese market on Saturday last were as follows:—Crediton, 400; Bryanston, 500; North Street, 120; Union Hill, 200; Mount Carmel, 110; West Magdala, 380; Iona and Erie, 275; White Oak, 130; Delaware, 150.—Total, 2265. The feeling of the market was decidedly weaker than [the previous week, the Liverpool cable advices showing a decline of one shilling, but sellers generally held for 5 1/4c, a quarter of a cent less being in some cases offered and refused. Sales were made as follows:—Bryanston, 500 on p. t.; Iona and Erie, 275, 5 1/4c; Delaware, 150, 5 1/2c; Rodney, 124, 5c—total, 1049 boxes.

English Markets.

Liverpool, July 26.

Quotations of fair average quality No. 2 Chicago spring wheat for shipment during present and following month, per sail to Queenstown for orders, per 480 lbs, American terms, 42s 6d. Quotations of fair average quality mixed American corn, for prompt shipment per sailing vessel to Queenstown for orders, per 480 lbs, American terms, 21s 6d to 22s. Liverpool—Wheat on the spot at opening, firm; corn, turn dearer. Liverpool—Mixed corn, per cental, 4s 5 1/2d; Canadian peas, 6s 1d.

Table with columns: Flour, Wheat, spring; Red Winter; White Winter; Club; Corn, per cental; Oats; Barley; Peas; Pork; Cheese. Includes prices in s, d, and c.

Montreal Markets.

Montreal, July 28.

Oats, per bag, 75c to 80c; Peas, per bushel, 80c to 85c; Flour, per cwt, \$2.50; Indian Meal, \$1.30; Moule, \$1.20; Grue or Shorts, 80c; Bran, 70.

VEGETABLES AND FRUIT.

Potatoes, early, per bag, 50c to 55c; Potatoes, old, per bag, 60c; Turnips, dozen bunches, 50c; Onions, dozen bunches, 20c to 31; Cabbages, dozen heads, 30c to 40c; Cauliflowers, dozen heads, 60c; Celery, dozen heads, 40c; Cucumbers, per dozen, 35c; Peas, California, per box, \$7; Peas, New York, \$3.50; Apples, per barrel, \$6; Strawberries, Quebec, per quart, 20c.

POULTRY.

Turkeys, each, 70c to 80c; Fowls, per pair, 60; Chickens, per pair, 20c to 40c.

BUTTER, EGGS, ETC.

Butter, in tubs, 11c; Butter, prints, 12c; Eggs, fresh, per dozen, 14c.

Toronto Markets.

Toronto, July 26.

Spring Wheat, 35c to \$1.03; Treadwell, \$1 to \$1.05; Deihl \$1 to \$1.07; Barley, 40c to 50c; Oats, 42c; Hogs, \$5 to \$5.25 per 100 lbs; Butter, per lb, 7c; Flour, \$2.25 to \$5.00.

New York Markets.

New York, July 28.

Wheat market without decided change. No. 2 Red, \$1.12 1/2; Rye, 6 1/4c to 6 5/8c; Corn, 43 1/2c to 45 1/2c; for Western Mixed Oats, 37c to 44c; Pork, 9c to 12c; Butter, per lb, 7c to 10 1/2c; Cheese, 4c to 6c.

Chicago Markets.

Chicago, July 26.

Wheat, '93 1-2 bid September; Corn, 36 1-2 to 36 3-8 bid September.

Detroit Markets.

Detroit, July 26.

Wheat, Extra, held at \$1.07 1-2; White, \$1.05 cash; New White, 10 1/2 1-2.

Annual Provincial and State Fairs.

Table listing various fairs across different states and provinces with their dates, such as American Institute, New York, Sept. 15, Dec. 1; American Pomological, Rochester, N.Y., Sept. 17, 19; Arkansas, Little Rock, Oct. 20, etc.

The first Provincial Exhibition of New Brunswick will be held in October, 1880. The only exhibitions in this Province in 1879 will be local shows by the Agricultural Societies.

In article on Manitoba, Senators should read M. P's.

Sub Air-Ducts for Dairy Houses.

A correspondent in Maine writes to know if the sub air-duct system recommended and patented by Mr Wilkinson, of Baltimore, has answered the expectations of those who have adopted it, and if so, how much such ducts ordinarily cost, how deep they should be laid, and of what material constructed?

We know nothing practically of Mr. Wilkinson's method of regulating the temperature of buildings by his system of sub air-ducts, but have seen several letters from parties who are more or less interested in their success. A number of dairies at the West have these underground ducts connected with them, and, so far as we know, the parties using them are well pleased. An attempt was made, we believe, to adopt the system at the dairy house on the Centennial grounds at Philadelphia, but, from some cause, with quite indifferent results. If we understand Mr. Wilkinson's theory and plans, he would choose a side hill for the site of his dairy house. On the upper side he would dig a deep trench several rods in length, and in the bottom lay two roofing tiles, with the upper edges together, while the lower ones rest against the sides of the trench. This makes a triangular duct, which is always below frost, and in which the air must maintain a temperature of nearly the same degree as the earth by which it is surrounded. Of course, the deeper the channel is laid, the cooler will be the air in summer, and the warmer in winter. We believe Mr. Wilkinson has found it sometimes necessary to lay his ducts fully nine feet beneath the surface and several hundred feet in length. The dairy room is built as nearly airtight as possible, and is connected by valves with both upper and lower ducts. The theory is that the air in the upper duct, when cooled, will, by its own gravity, flow down into the milk room, and, after having cooled that apartment, flow on through the lower duct, and out again into the open air, its place being constantly filled by fresh air flowing down from the upper duct which is open to the surface atmosphere. In the winter the air takes just the opposite course, thus carrying up into the milk room air which has been warmed by passing through unfrozen ground. It is claimed that it is practicable by this system to keep the temperature of a dairy-room very near to a temperature of sixty degrees both summer and winter, and that, when the ducts are once made, they will last for an indefinite period, and temper the milk at much less cost than by the use of ice in summer and fire in winter. It will be seen that the cost of such fixtures must depend very much upon the nature of the surrounding soil, whether sand, rock or hard pan.—[New England Farmer,

PREMIUMS AT FAIRS.—In a large number of cases it is not the money value of the premium that gratifies the recipient; it is the fact that a premium was given at all. Now that Fair schedules are being—or should be—considered and published, we would suggest to those having the matter in charge, that a number of societies offer as premiums a year's subscription to the FARMER'S ADVOCATE AND HOME MAGAZINE, and that those which have done this in a small way at first have found it so satisfactory that they have added to the number of premiums of this kind, and that this custom is increasing. Such premiums do vastly more to promote the objects of the society than mere money prizes. Aside from the fact that one can not fail to be greatly benefited by the teaching of the FARMER'S ADVOCATE AND HOME MAGAZINE, its regular coming once a month is a frequent reminder of the society and its fair, and thus the interest of the recipient of the prize in the fair at which it was given is kept alive the whole year. If the officers who have yet to arrange their premium lists will think of this matter, they will see that they can in no other way make the money at their disposal go so far, and at the same time do as much good, as to award a large share of it in the manner suggested.

FAIRS FOR 1879.—TIME AND PLACE WANTED.—Several announcements of fairs and premium lists have already come to hand, and we make our usual request to the secretaries or executive officers of the various societies, to inform us of the fair as soon as its date is determined. We would suggest to societies the importance of fixing upon the date early in the season and issuing the schedule of prizes. If this is left until within a few weeks of the fair, the work is often hurriedly done, and those who would compete for those premiums that require preparations in advance, are deprived of the opportunity of doing so.

NEW ADVERTISEMENTS.
\$20,000 in Prizes
THREE WEEKS
Agricultural and Industrial
EXHIBITION,
AT TORONTO.
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Cheap rates and excursions on all the Railway and Steamboat Lines.

Entries close first week in August. Prize List and Forms of Entry now ready.

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Has stood the test of upward of 40 years, and is acknowledged the safest and most effectual preventive of Smut in Wheat, Barley, Oats, &c., &c., the ravages of the slug, grub, and wireworm, and the incursions of rooks and vermin, as the testimonials, and high reputation of the gentlemen whose names they bear will testify. It will also promote the germination and growth of the seed wheat, and increase the produce of the crop equal to a change of seed.

A packet is sufficient for six bushels of seed, which can be dressed and fit to sow in a quarter of an hour.

Testimonials from the largest wheat growers in Great Britain, bearing testimony to its great power and efficacy, may be had on application.

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 ORIGINAL AND ONLY GENUINE
"Grain-Saver"
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THE Matchless Grain-saving, Time-saving and Money-saving Threshers of the day. Beyond all rivalry for Rapid Work, Perfect Cleaning, and for Saving Grain from Wastage.



STEAM-POWER Threshers a Specialty. Special sizes of Separators made expressly for steam-power.

THE Entire Threshing Expenses (and often much more) can be made by the extra Grain SAVED by these Machines.

GRAIN-RAISERS will not submit to the enormous wastage of GRAIN and the inferior work done by other machines, when once posted on the difference.

NOT only vastly superior for Wheat, Oats, Barley, Rye, and like grains, but the only successful Thresher in Flax, Timothy, Millet, Clover, and like seeds. Requires no "attachments" or "re-building" to change from grain to seeds.

IN thorough workmanship, elegant finish, perfection of parts, completeness of equipment, etc., our "Grain-Saver" outfits are incomparable.

MARVELOUS for simplicity of parts, using less than one-half the usual belts and gears. Makes clean work, with no litterings or scatterings.

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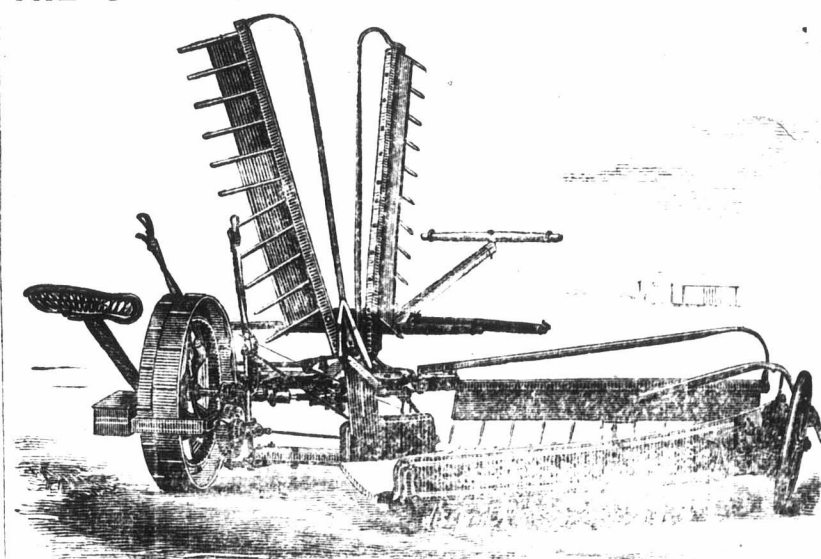
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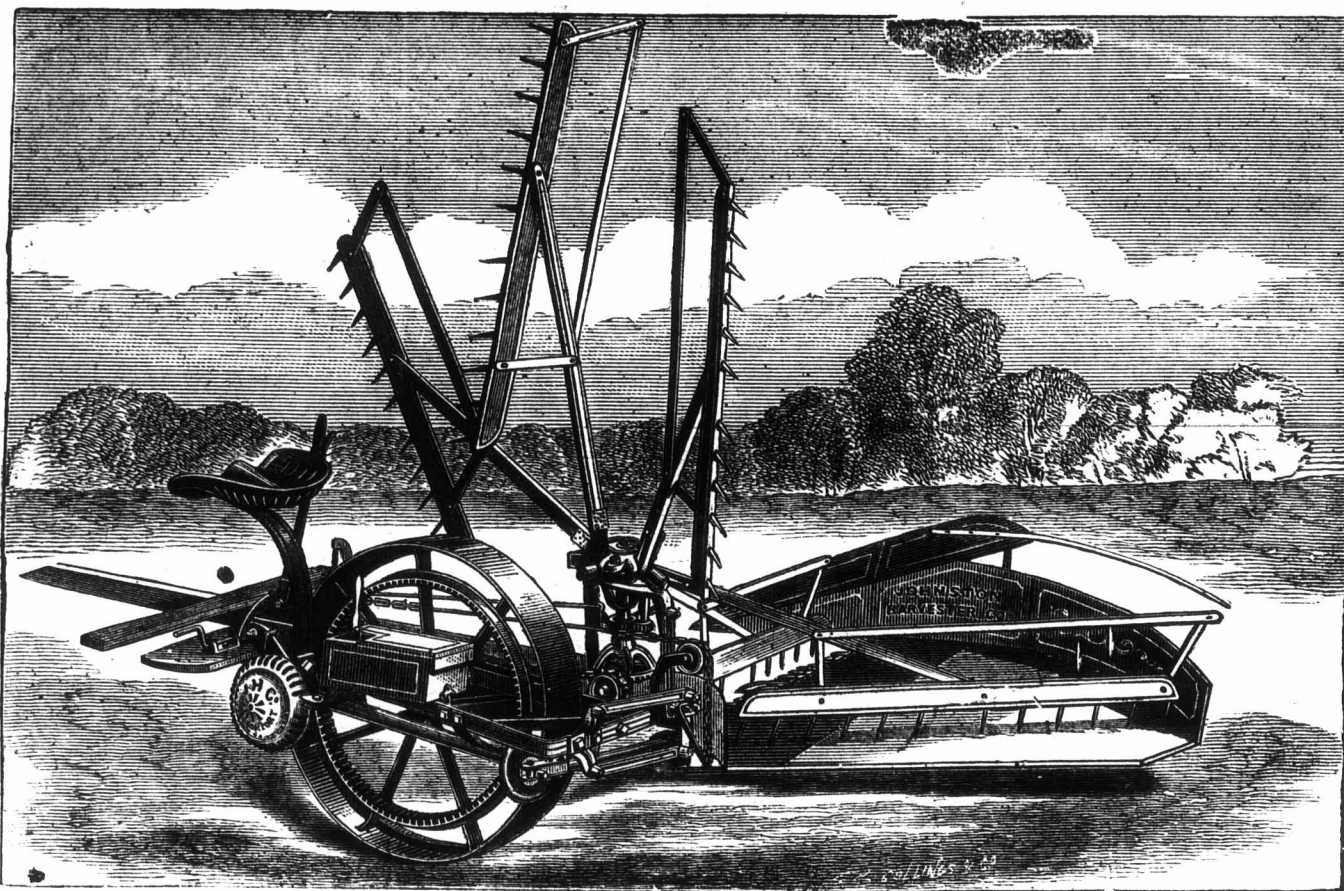
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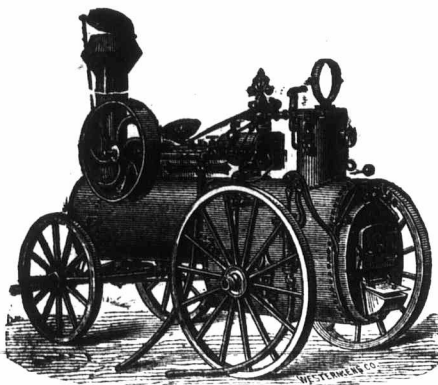
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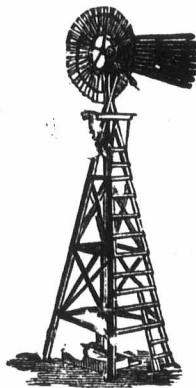
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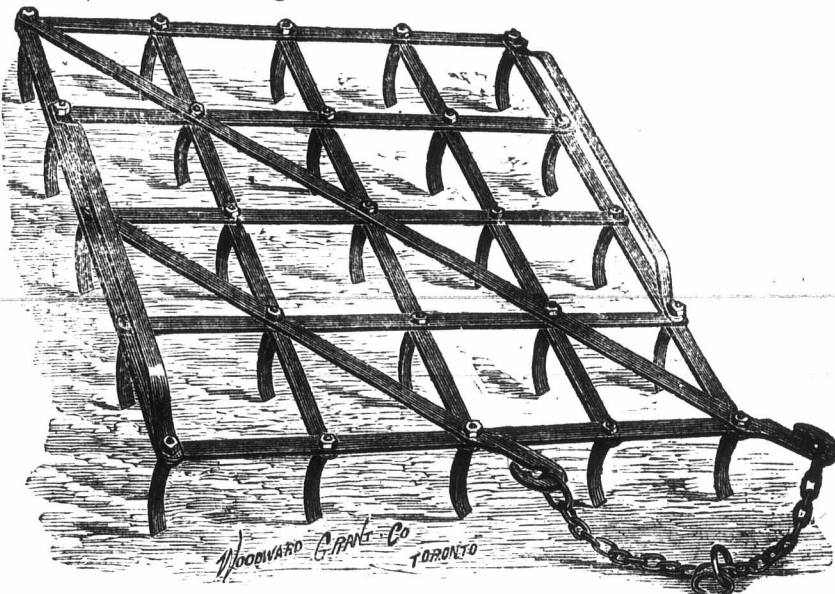
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