

...-208 acres; 168 im-
ed Oak, Chestnut and
ever-falling springs.
Large comfortable
utbuildings, barns, &c.,
fence on the outside,
4 miles from Simcoe,
terms easy.

...-200 acres; 34 clear
loam. Well fenced,
4 miles. Price, \$2,500;

...-80 acres; 76 im-
ng creek. Light loam.
9 miles from Simcoe

...-200 acres. Sandy
two-story brick house;
2 1/2 miles from Simcoe,
Delhi. Good gravel

...-100 acres; 60
e and Pine. Mixed soil.
Orchard Churches
Price, \$1,600.

...-200 acres; timber
d; light loam. Price,

...-116 acres, about 60
elm. Clay loam. Well
og barn. \$50 an acre;

...-100 acres, 60
ome pine, ash and cedar,
Mixed soil. Good large
house and sheds (good.)
2 miles. Price \$3,000;

...-25 acres, all
loam; creek. Close to
Two miles from Inger-

...-20 acres, all
n. Good orchard, grate-
house and frame out-
nt. Price \$1500; terms

...-200 acres, 150 im-
; clay loam. Frame
Railway station, churches

...-90 acres, 50 im-
ech, maple and elm; a
loam. Log house, well
Churches and schools

...-About 90 acres; 75
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...-About 130 acres and
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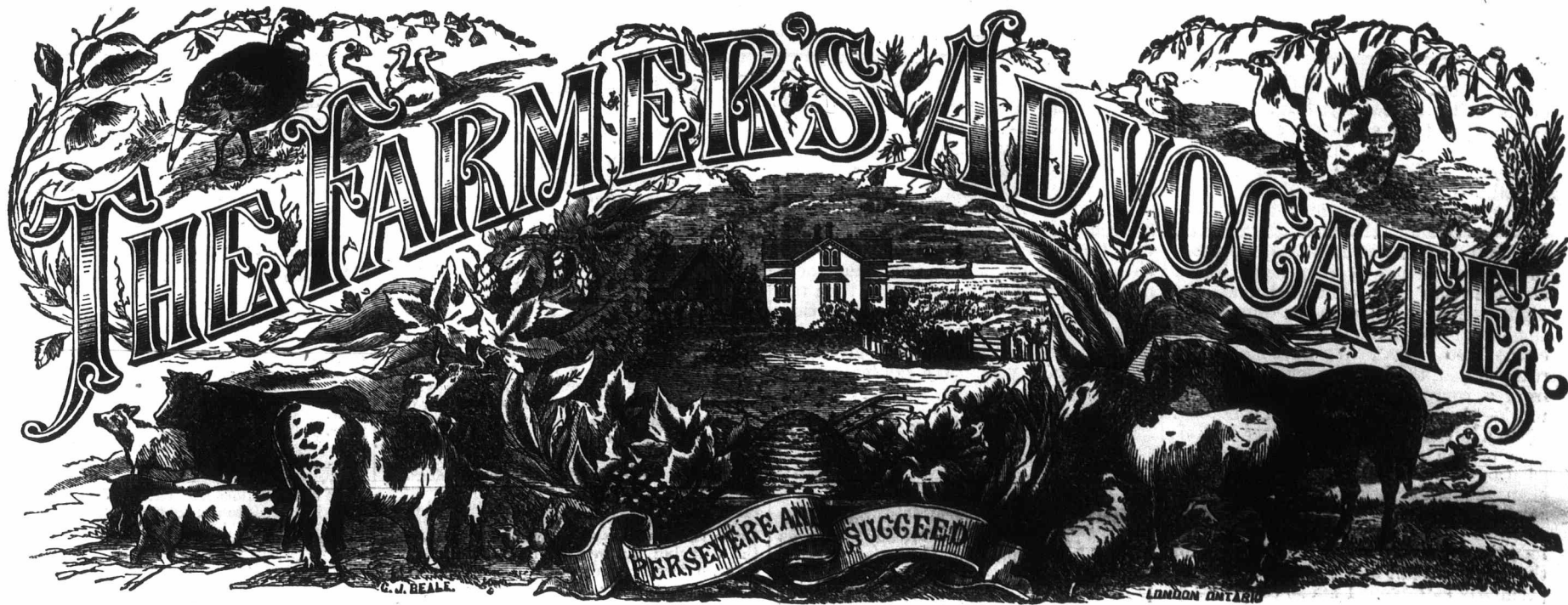
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VOL. X. { WILLIAM WELD, Editor & Proprietor. }

LONDON, ONT., OCTOBER, 1874.

{ \$1 Per Annum, Postage Prepaid. } NO. 10
{ Office—Dundas-St., Opp. City Hotel. }

October on the Farm.

What of October? Any work for the farmer and his laborers? Any pleasures for him to enjoy this month? We need hardly say to those conversant with country life, that this month brings work sufficient for all hands, and that it also is a season of real pleasure. There are crops to be harvested now; the farmer must look that the fruits of his labor during the earlier months of the year are secured before the first storms of winter. The potatoes must now be dug and safely stored, and it is necessary to have the work done in fine weather, if at all possible. Potatoes dug and stored in the cellar and pit when the weather is dry will be better for use and will keep better, with less danger of rotting. The October weather of Canada is, fortunately for us, almost always favorable for this important work, and hence we have less rotted potatoes than there are in more humid climates. Another advantage of digging potatoes when the ground is dry is that it can be done in less time and at less expense. The machines known as potato diggers do the work very expeditiously, but they have not yet come into general use, but some patterns are well liked by those who have procured them. Many plough out their potatoes. Where planted to a considerable extent this may be found necessary, but it is said that a considerable portion of the crop is bruised and otherwise damaged, and that many are left in the ground.

Turnips will continue growing during the month—indeed it has been observed that they grow more during the few weeks of cold weather than in the warmer months, hence they are let grow on till November.

"Keep the plough jogging and you will not want feed for your horses," is an old time proverb of the farmers, and it is still a good advice. Fall ploughing has many advantages. The land that is turned up rough and deep in the fall will be found mellow and in every respect improved in the Spring. Winter is the great cultivator and fertilizer for those who are prepared for his coming.

This month is by foresters considered the best for cutting timber, either for firewood or other purposes. The firewood is said to be better, giving more heat and burning longer, and wood for carpenters uses being more durable.

Every repair to cattle sheds, stables and farm premises generally, should now be done. Convenient and warm houses for stock in winter amply repay the farmer in their good condition and economy in their food; and let not their condition now fall away. Cattle should be in good thriv-

ing order when housed for winter. Bare as the pasture may have been, a provident farmer will have other feed to supply the deficiency. There should be green food to mow and feed to them in the yard and stalls.

The Garden and Farm are alike objects of the farmer's care. Farming is but gardening on a larger scale, and our aim should be to have the cultivation of our fields approach that of the garden as near as in our power. Both should be kept free from weeds, well manured, and have in every respect a thorough cultivation. Fruit is to be collected this month, and this should be done carefully, hand-picked and not shaken on the ground. See that in pulling the fruit no injury is done to the trees by breaking branches, thereby lessening the next year's crop. Fruit—apples especially—are becoming a staple product of the country. We may safely say that the apples of Canada cannot be excelled, and we are glad to learn that the demand for fruit trees is continually increasing. There is a demand for all we can raise, and there is no fear that they will become a drug in the market.

Trench as much of your garden as you can. You will find your reward in the case of working it in the Spring, and still more in increased productiveness. We speak from an experience of many years.

Fruit and shade trees may now be planted in well prepared ground, though many appear to think it better to defer planting in this climate till Spring.

In the Flower Garden there is some work for October. Tender bulbs are to be taken out of the ground, and hardy bulbs planted for early flowering. In a word, work judiciously and properly done at this season, will be the saving of much spring labor, and your garden will be the better of it.

Scott Wheat.

We have now disseminated this season a greater number of lots of this wheat than any year previously. It is now four years since we first procured it, we gave you all the information we could about it. The wheat was imported from the States. It was at that time mixed with a few grains of a bearded variety. This slight mixture has not yet been picked out of it by any one that we are aware of. Some of the admirers of the Diehl wheat consider we have said too much in favor of the Scott wheat, and not sufficient about the Diehl. The facts are, there are as large crops of Diehl raised as of the Scott, on good porous or well drained soils, particularly in light soils, on the other hand there has been more Diehl wheat ploughed under from winter killing than any other va-

riety during the past year. The Diehl also rusted worse than the Scott has ever been known to. Again, on nine-tenth of the clay soils the Scott has out yielded the Diehl. Still farther, we sent out hundreds of lots last year, and in no case have we heard of a complaint in regard to it, except from a few that might, or ought, to have known better. The greatest complaint that we have heard is that the Scott wheat shells badly. For our part that is what we consider a good quality. Our farmers here carry too many light-headed loads into their barns that have not shelled in carrying or at any other time. A shelling crop denotes a good one. We know that some of the wheat sent out is not quite as clear or pure as we would wish, but there has not been any injurious weeds in it—we have been careful on that score. We did not raise quarter enough to supply the demand. We believe that all will be pleased with the hardiness of this variety.

Fences or No Fences.

Since our visit to France we have frequently thought of that country, with its dense population, cheap labor and plenty of money, and farms unfenced. The question arises—Is it an improvement over fencing or not? It is claimed that more food for man and beast can be raised without having fences.

In regard to economy of labor in cultivating the land, fences add to the cost. In regard to the appearance of a country in a picturesque point of view, France will not compare favorably with the neat kept hedges in England, but comparing the unfenced land of France with our unsightly snake fences, France, we think, has the advantage. Our fences are fine nursery beds for Canada thistles and other weeds. The expense of keeping up fences on many of our farms amounts to a good rent, and as our timber becomes scarcer it must increase; the expense of raising live hedges on many farms would be more than their present value.

It is our impression that the abolition of fences would tend to advance rather than retrograde from the present system. Soiling of stock would come more into practice; lands intended for permanent pasture would be fences, as in France; portable hurdles or wire fences would be used to fold stock on small pieces of ground, as required by adopting the soiling system. It is astonishing on what a small piece of ground stock can be kept, as compared with pasturing.

In the cultivation of trees, whether for firewood, shelter, wind brakes, fruit or building, it is our impression that more would be planted if stock was confined

than if allowed to run. This is a subject that each farmer should consider, and not confine his ideas to just his own farm or locality, but to the country generally. It is our impression that the time is not far distant when fencing will be optional, not compulsory.

Manure.

Manure, cultivation and seed all require the most careful consideration of the tiller of the soil. The quality of the seed to be sown, and whether thin or moderately thick sowing is most productive, are very important questions for him who looks to the produce of his fields for remuneration for his expenditure of money and labor. Nor is the mode of tillage of less importance than the seed; in vain is the best seed selected if the ground be not properly prepared.

The importance of the subject we now take up is shown by the attention paid to it by all agricultural writers, and by the labor and expense the farmer bestows in its acquisition and care. We have this season made a trial of manures of several kinds, and will briefly give our readers the result of our trials. We have not measured the plots of ground or weighed the products, but we observed carefully the growth of the crops produced by the several kinds of manure. We made a trial of cow manure, of cow manure and muck composted, of night soil, of wood ashes, of wood ashes with superphosphates applied afterwards to the drills, and of the offal of the tanneries, all applied to potatoes.

The largest yield has been from the muck and manure compost. The potatoes were very large with scarcely a small one, and a great many to each stalk. The cow manure used without any composting did not produce so heavy a crop, though from it too the yield was good. Wood ashes also produced well, and the potatoes were of a superior quality. With this manure the same result we have always had. The tannery manure we applied liberally, and the yield from it about equal to that from the cow manure, but I expect a more lasting benefit to the soil. It consists of waste hair, salt, lime and fat. The potato to which I applied the superphosphate received great benefit from it. They were the latest planted and promise well, and I soon perceived the improvement it produced and this improved appearance has continued all through. With the result of the night soil I was somewhat disappointed; it did not come up to the expectations I had been led formerly to form from it. I used it sparingly, though more heavily than directed by those who had more knowledge of it as a fertilizer than I

had. There can be no doubt, however, of its being a good fertilizer, though of the quantity to be applied to a given area of land there is a great diversity of opinion. "The night soil or sewage of thirty-five persons is said to be the maximum satisfactory amount to be applied to one acre," though it is applied on Mr. Hope's farm, at Romford, England, in the proportion of 85 persons to an acre. It has been estimated that the night soil of England in the course of a single year is equivalent to 5,000,000 tons of the best guano. We have had, as already stated, the largest yield of potatoes from a compost of cow droppings and muck—the muck being in soil contained much additional vegetable matter. Neither of the component parts would be good by itself, but both being mixed in a heap, the fermentation and decomposition so necessary made the whole one mass of muck in the very best state to afford the food requisite for vegetable life, and for the great drought of the season they were peculiarly suitable. I am so convinced of the value of such composts that I have a large heap now in preparation. For currant bushes I have found that such compost adds greatly to the quality and size of the berries. I intend continuing my experiments with manure the ensuing season, and hope to be able to inform the readers of the *ADVOCATE* if another trial confirms the lessons of the past.—S.

Trip to Europe.

ISLINGTON HORSE EXHIBITION.

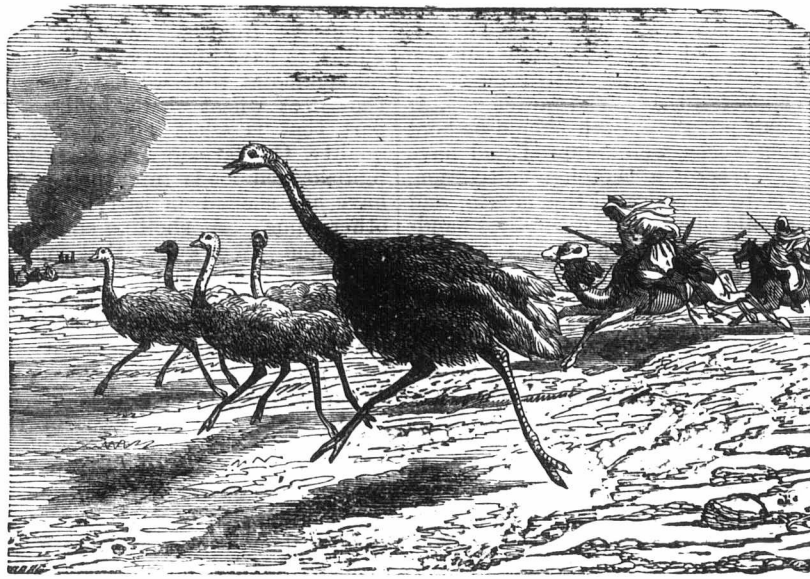
We went to see this exhibition one morning. The approach to the exhibition ring is lined with carriages, harness and saddles principally. There were other things also shown, such as churns, washing machines, &c., &c. The ring is large, in good order, and under cover. Reserved seats are over the heads of pedestrians, commanding a fine view of the ring. Numerous horses were on exhibition in the ring, nearly all of them being for sale. Female riders were showing off some of them to their best advantage, and showing themselves as well—perhaps they were both for sale. Hurdles having goss or furze woven in them are erected for the hurdle races. The horses on exhibition at this place are principally for carriage horses, riding, hunters, cobs, blood and Shetland ponies. The prices asked were very high compared with the price horse flesh used to command in England. We asked the price of a good hunter. Three hundred guineas was the reply—rather over \$1,500. A span of small fancy ponies—little tiny things—£70, or \$350. Prices ranged from these figures downwards. Good horses sold for \$300. We went for the purpose of seeing stallions, but there were very few there. The one that took our attention most was called Fireaway; he was a low set, heavy bodied, brownish sorrel; he had good limbs and wide chest; he would stand under 16 hands high; his crowning point was his speed as a trotter; he got the 1st prize. We did not wait to see him in the ring, as he would not be out until the afternoon. The price asked for him was 1,000 guineas, or over \$5,000. He was not near as handsome as Anglo-Saxon. We were not prepared to purchase stock, nor did we go with that intent, but we thought, even on that score, that the cost of carriage and other casualties, that the profits on importing him here would be very doubtful, as but few would be found willing to patronise him at such a price as his services should command. The only superiority this horse has over Anglo-Saxon is that he is a little faster for turf men and betting purposes, and for dashing a short distance this animal we presume stands first class. The fast men will sacrifice everything for speed, but for appearance, style, color, hardness of constitution and real utility, Anglo-Saxon now stands his victor.

We saw a pair of patent sheep shears in one of the stalls at this exhibition.

A sheep might be seen with a man in attendance, the latter having a novel kind of shears for sale. The shears are made like two fine saws, something like the sections of a mowing machine, about 2½ inches wide. It was claimed that an inexperienced hand could use them, and that he could not cut or injure the sheep with them. We examined the shears and tried them on a sheep, and found them much harder to work and slower than the common shears. We do not consider that they are worth anything, but some might, from the list of testimonials given, attempt to gull you. We say leave them alone.

STEAM SHEARING MACHINE.

When in the County of Sussex a shearing machine was reported to us by practical men to be doing good work. We were invited to go to the farm of an old friend and see it in operation, but our time was limited. The machine is from Australia. We feel we must go to England again ere long, as much work is to be done there to make your paper more instructive. It was necessary for us to return to look after the paper, and give our reports of the crops we were having tested, of which you have heard something, and will hear more at the proper season. The fall wheat you also desire to know about.



The Ostrich and Her Family in Flight with the Bedouins in Hot Pursuit.

Of the most interesting denizens of the the parched peninsula of Arabia, not the least interesting is the ostrich, of which we give a picture above. Being of great size, her short wings are insufficient to bear her as do other birds, but her long legs enable her to run over the ground with great rapidity, and her wings, though short, aid her in the flight, on the same principle, but with much greater force, as a man calls in the aid of his arms in running or a smart walk. She needs all the aid they can give her, for her pursuers are mounted on Arab coursers of the swiftest horses that speed over the desert, and the camel, "the ship of the desert," while the spear seems as if it would soon terminate her life. The Arab horse, which our illustration shows, is well worthy of a place in any work, and is the favorite of his owner, the semi-barbarous son of Ishmael, by whom he is treated with all the kindness of a dear child, and he repays the kindness with no less affection. From the Arab horse have descended the swiftest horses that have borne away the prizes in Old England, and some of the best in the continents of Europe and America.

To British Capitalists.

THE AMERICAN EXPRESS COMPANY.

Numerous British capitalists have invested capital in Canadian railways, and a just complaint is made by them that a proper interest is not returned. The cause of this complaint is not because there is no work for the railroads, nor because the tariff is too low, for the railroads have had more work than they could possibly do, and the tariff, as regards the price paid by Canadians, has been high enough to give a high rate of interest. The cause of the deficiency, we believe, is mainly due to improper management of the controlling persons. They may have had a friend they wished to make wealthy. Some of them perhaps have been anxious to add a little more to their own hoard than they have earned fairly, by employing their abilities more to their own interest than to the interest of the company that has paid them their salaries to look after its interests, to whom their abilities had been hired. We fear that dishonorable acts have been the cause of the great complaints of the British capitalists. In one small matter, viz., the carrying business in its most profitable sense, has been taken out of the hands of the railway companies and placed in the hands of the express company. The question might be taken into consideration, who are the stockholders of this express company? What pecuniary interest have the friends of the managers or directors of the railroads had in this company? Why should not the British capitalist have the great profits of the carrying trade? Why have all small parcels, and sometimes large ones, been detained so long on the road

more reasonable rates, or have a curtailment of their business. If the railway companies will look into this matter, they can return better dividends to the stockholders. Better dividends implies more money for Canada at lower rates of interest, which again implies more improvements and a greater general prosperity. Down with injurious monopolies!

The Weather and Crops.

We have had one of the most severe droughts during the past three months that we have ever known in Canada. Fortunately the early sown crops, winter wheat and hay, were not injured to any extent by it, but the late crops, in many sections, have suffered to an alarming extent. The pasture lands have been in a dried, parched, dead looking state for a long time. Cattle in many places are now very poor. Nearly every one has been under the necessity of feeding more or less of their winter store. Creeks and wells have become dry. Many farmers have only watered their stock three or four times a week, having to drive in some instances ten miles to do that. The root crops must be light—in many places a total failure. Hops have not got their growth, and consequently must be a light crop. The fall wheat—much has been sown in land as hot and dry as a heap of ashes. In some places moisture sufficient to cause some of the wheat to germinate may have been found, but the continuation of the drought, with the thermometer at 98° in the shade, must shrivel the germ, consequently much of the wheat will be very uneven when rain comes and causes the other to grow. We hope it may come before this reaches you, but we write these remarks early, as we wish to see the exhibitions. The thermometer yesterday was 110° degrees in the sun in our warehouse window. We should not be at all surprised if considerable of the wheat sown would be so much injured as to necessitate reseeding in the spring. Some farm-ers have abandoned the hope of raising any fall wheat, and will not now sow. Lean stock cattle will be cheap. Make beef of what you can, begin to feed grain early. One bushel fed this month will put on as much fat as two, three, four or five, would do, or even ten, in cold weather. This will depend on the treatment of the animal.

Recent Stock Importations.

C. Moser, of Tuckersmith, one Clyde-dale stallion.
Mr. Lawree, Scarborough, one Clyde mare, one Clyde stallion, one Ayrshire cow, and one Ayrshire calf.
Mr. Lepere, two Clyde horses.
A. Allan, of Montreal, three Ayrshire cows.
Mr. McEhren, of Montreal, two fillies—one yearling one and a two years old.
James Dolriell, Galt, one Clyde stallion.
Jas. Franks, Harrietsville, a two year old Clyde mare.
Beattie & Co., 150 sheep, 7 stallions and Ayrshires.

We have not the correct number of Durhams, Cotswolds, Leicesters, horses and hogs imported by the several breeders this season, but they are more numerous than usual. Nutter & Beattie, we hear, are importing largely. Craig, Snell and others have also brought a lot of fresh blood into our country. Our exhibitions will be improved by their appearance.

The Agricultural Emporium.

Nearly all of you have had the opportunity of reading the charter of this institution. You all have had an opportunity to take one share. We presume the time is not far distant when the stock will be worth a premium, and some of you will then regret that you had not taken a share at an earlier date. You still have an opportunity, and we would recommend and advise one subscriber at each P. O. to apply for one. They can only cost you \$20. You may gain hundreds in a year by the advantages that may be derived from it. Remember, time past never returns.

CHEESE FACTORIES IN CANADA.

Cheese factories in Canada are said to be on the increase. There is no reason why many districts in the Provinces should not compete successfully with the dairy districts of the United States. There is no danger of glutting the market. The *Western Rural* has always taken the ground, and does yet, that increased production always produces increased consumption, if the commodity only be one of general value to the community.

A. G. DEADMAN

Dear Sir,—

I wish to make explanation in leading facts of given in one of pecially as it m and condemnat most disgraceful verdict, irrespe rules laid down sociation, by on the Rev. R. Bu of the Fruit tively swearing four highly resp in their respect reproach, and v their bonds, th same class and other sections of were opponents peting with me taken place. I those who hear that he swore known were m merited the com when we remen vindicator and also, that he is tinctive name h both the Frui Provincial Agri dent of the first of the other.

That no exhib confidence in men as this Re ruling power is an authority no of the Society their guidance, will and pleasur cancel an award award it to any hibitor in the sa Now, Mr. Ed involved in this tr mittee appointed plaint in their r cel or withhol judges, if the e has complied fai Association? 2n the power, after case there have doing so), give a hibitor who had prize in that sec and on these gr for \$8, being awarded for the apples.

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They then tot their defence, k tain such an exc duce the writter (which the rules which will expl ting aside the fi This they could panned all pap matter. They test or show th On these grou dict, open to a duce this prote

Correspondence.

A. G. DEADMAN VERSUS PROVINCIAL AGRICULTURAL ASSOCIATION.

Dear Sir,— I wish to make a few remarks in further explanation in regard to the above suit, the leading facts of which are so truthfully given in one of your late issues—more especially as it merited the severest censure and condemnation from you, in that the most disgraceful means were used to gain a verdict, irrespective of, and contrary to the rules laid down in the by-laws of the Association, by one member of the Association, the Rev. R. Burnett—who is also President of the Fruit Growers' Association—positively swearing to facts that were proven by four highly respectable farmers (men known in their respective neighborhoods to be above reproach, and whose words are as good as their bonds, three of whom exhibited in the same class and section as I did, as well as in other sections of the fruit department, and were opponents to myself by closely competing with me for the prize) to have never taken place. It was the general opinion of those who heard the evidence at the trial that he swore to facts that he must have known were perfectly untrue, and well merited the contempt of every one present, when we remember that he ought to be the vindicator and exponent of truth and honor; also, that he is unworthy to claim the distinctive name he bears, and is a disgrace to both the Fruit Growers' Association and Provincial Agricultural Association, President of the first and member of the Council of the other.

That no exhibitor or member can have confidence in any institution where such men as this Rev. "gentleman" have the ruling power is evident—who, by assuming an authority not given him by the by-laws of the Society (see Rule 44) laid down for their guidance, can, by his own arbitrary will and pleasure, without any just reason, cancel an award given by the judges, and award it to any friend who may be an exhibitor in the same section. Now, Mr. Editor, the great principles involved in this trial were, 1st, can the committee appointed to investigate any complaint in their respective departments, cancel or withhold an award given by the judges, if the exhibitor obtaining such prize has complied faithfully with the rules of the Association? 2nd, can they, or have they the power, after withholding an award (in case there have been found good reasons for doing so), give such prize to any other exhibitor who had not previously received any prize in that section. I decidedly say no; and on these grounds I sued the Association for \$8, being the amount of my prize awarded for the 2nd best 20 varieties of apples.

Knowing that my fruit was correctly named, and that I had complied with the conditions relating to exhibitors, I could see no valid reason why they should take it away from me. At first, on applying to Toronto for my prize money, I was informed by Mr. Thomson, the Secretary, that my award was cancelled by order of the committee in that department, and confirmed by the Council. I then wrote to enquire on what grounds, or how had I transgressed the rules that it should be taken away from me. After two more letters I began to find out the reason: That on the complaint, he thinks, of one G. J. Miller, that my fruit was incorrectly named; but when the first trial came on, I was prepared to prove by six witnesses, three being exhibitors in the same section, and who are the leading fruit growers in this part of the Dominion, and who have been brought up to the business from childhood, that the names were correct and that my fruit was worthy of the second prize.

They then totally abandoned this plea as their defence, knowing they could not sustain such an excuse. We said, then, "produce the written protest that was put in (which the rules of the Association require), which will explain the reason for your setting aside the first award of the judges."—This they could not do, although I had subpoenaed all papers and books relating to the matter. They could not produce this protest or show that there had been one. On these grounds I obtained my first verdict, open to a new trial if they could produce this protest.

Now let us see what followed. They consulted their lawyer, who, I presume, thought he was a Hercules, and made application for a new trial, setting forth one reason that they could produce such evidence as would clearly show that a written protest had been sent in. The new trial was granted, and now, Mr. Editor, mark the evidence given in support of this new plea. The morning of trial came on, with this great luminary, I believe a Mr. Smart, a lawyer from Hamilton, from whose brilliant rhetoric such a flood of light would appear that the darkness hitherto surrounding the case would soon vanish. Then there was the Secretary, Mr. Thomson, with books and papers sufficient, to all appearance, to try a Tichborne case; and lastly, accompanying this worthy pair, was the essence of truth and purity, the Rev. R. Burnett, President of the Fruit Growers' Association and member of the P. A. A., who came up the second time with the arrogant and presumptuous supposition that the holy character of his profession, and the high position he held ("I am President of the Fruit Growers' Association and member of the P. A. A.") would have such an overwhelming influence with the court that any evidence he might give could not possibly be questioned, and that the testimony of seven honest farmers and fruit growers would sink into insignificance; but did the jury think so? Did this Rev. gent. come out of that court as clear in conscience as when he entered it? Did the evidence prove, although he distinctly swore to the fact, that a written protest was put in? No! When cross-examined, what did he say? He "could not tell what was the nature of the contents of the protest, and knew not what the complaint was." This worthy pretended he acted on the charges contained in such letter.

This was great evidence of a protest having been put in. Hear what Mr. Thompson said, a gentleman who, I believe, would not sacrifice truth and honor to gain a paltry suit, or try to establish a fact that did not exist. He said on oath that he had no recollection of seeing any protest, or reading one, or handing any to Mr. Burnett. This agrees with his letter to me, wherein he says: "I think the complaint was made to the committee." If there had been such a protest, how was it he had not this one amongst his other protests, which numbered twelve or more? He was the party to whom the protest would have to be handed in, according to law. How was it they did not produce the man who wrote the protest and gave it to the Secretary?

I think this Rev'd swore that Thomson handed him the paper. Further, look at this reverend gentleman's evidence. He swore that he destroyed and tore up all the prize tickets on Thursday, in each section, when he and two others composing the committee had made any alteration, and threw them under the table. Did he do so in the case of Mr. Wm. Buttery, of Strathroy, whose prize was withheld, who took away his ticket? Did he do so in the case of Mr. W. Armstrong, of Westminster, who took his away too, and his prize was withheld? Did he in my case, when I proved it was attached to my fruit during the whole show and was there when the fruit was taken away on Friday afternoon, another witness has since come forward to say she saw it there, too, on Friday. Think you that any reliance can be placed upon the testimony of such a witness?

Again, he swore that your evidence of what he said at the meeting of the Board at Toronto, was untrue; that when you brought my case before the Council as to the reasons for withholding my prize, the Rev. gentleman stated or made out it was an apple called the Pear Apple among my fruit that was incorrect. Now, I had no such apple, and I was prepared to prove at the first trial that it was not the Pear apple, by producing the apple itself, which is a late Winter Sweeting, labelled amongst my fruit as Well's Sweeting. But on being closely examined, he admitted having spoken of this apple—this being the bottom of the whole trouble; but instead of coming forward and admitting that he had made a great error in judgment in the hasty manner in which he formed his opinion, and well knowing that I could easily upset this pretense, they hazarded the chance of obtaining a verdict on a point of law—as to their right upon a protest to alter any award

made by the judges, even supposing my fruit was correctly named.

He further admitted that a Mr. Miller had spoken to him about the way the judges had decided, and in reply he had expressed an opinion that they had not exercised much judgment in making their awards. Now, it was the general opinion of all that this was the only ground on which the award was altered, and that this was that great written protest that was put in, and that these great men were prepared to prove, no matter how questionable the means used, so long as their decision could be sustained.

I trust I have vindicated a principle, that no officer can violate or break the rules of the Association with impunity, and that every exhibitor should have fair play in every department, no matter from what section of the country he comes, and that no partiality should be shown, so that the Niagara district might keep up its old reputation as producing the best fruit, whereas the western part of Ontario is fast outstripping it in the excellence of its fruit and the intelligence of its fruit growers.

I hope and trust we have some honest farmers, who, as directors in this Association, will make a motion and condemn the proceedings of those connected with this suit, which is calculated to bring the Association into bad repute, to engender a feeling of distrust amongst the farming community, who can have no confidence that any prizes that may be fairly and impartially awarded them by the judges will be paid by the Association; otherwise they will find out too late that the farmers are not to be gulled by the great and tempting offer of \$12,000 in prizes to be given away, if they know and feel it is not carried out in good faith, when properly and fairly earned—and when they see that the working and carrying out of its rules are violated, and some of its leading men wanting in all that makes a man the likeness of his Maker—when we see the main object is to pocket out of the handsome surplus remaining after paying all expenses, large emoluments to themselves, squandering, as in this case, about \$100 to defeat the honest payment of an \$8 prize, fairly and honorably won.

Well may we exclaim, as many exhibitors of the late show told them at the trial,—"It's the last dollar you will ever get out of me," and who left the hall perfectly disgusted with their meanness. I should like to ask either of the gentlemen whether they would have brought a lawyer from Hamilton, and hired an expensive carriage and pair from London, besides paying the railway fare from Toronto, if the money had to come out of their pockets. I guess not. Its the farmers' money and the farmers have to foot the bill.

I must now, Mr. Editor, thank you for the interest shown in my behalf, and for allowing me space in your valuable journal to expose the doings of men high in power but low in principle. Hoping your publication may prosper and that you will ever lend a helping hand to expose knavery, dishonesty and fraud, and that the farmers of the Dominion may always have a helping friend in the FARMER'S ADVOCATE.

I remain, your well-wisher, A. G. DEADMAN. Delaware, Ont., August, 1874.

FRUIT.

Allow me to submit for your notice a few specimens of two kinds of apples, neither of which, if we may judge from the few trees seen growing of them, are appreciated as they deserve. I have heard one of them—the "Hawthorn Dean"—spoken of as the poor man's apple; the other—"Duchess of Oldenburg"—is equally as well entitled to the appellation, I think.

The trees from which the accompanying fruit was picked are 6 and 7 years old respectively, planted 3 and 4 years ago, and this is the second season both of them have borne fruit. The Hawthorn Dean is of Scotch origin, medium to large in size, pale yellow, with red blush on sunny side when ripe; a constant, and not only abundant, but very early bearer, while the dwarf habit of the tree admits of its being planted in small gardens without inconvenience.

The "Duchess of Oldenburg" is a large, roundish, rather long apple, beautifully marked and striped with red on a yellow

ground, very tender in texture of fruit and full of juice, making it a favorite with the cook. The tree is as hardy as the Siberian crab, which of itself is a great recommendation. Both varieties are fall apples, fit to use in August, and ripening the end of September and October. A. P.

August 25th, 1874.

[The specimens sent us by Mr. Pontey, of St. James' Park Nurseries, are of a good growth and perfectly sound; they are now good cooking apples—August 25th. We have no doubt but they will make a fair eating apple in a few weeks. The trees these apples were grown on branch out two feet from the ground. The hardiness, early bearing qualities and utility of the apple for small gardens and for northern latitudes appear to be such as to recommend them highly to all parts of the country where there is any difficulty found in raising the more tender varieties. The sun, in some localities, destroys the apple trees by striking on the trunks of the growing trees. To obviate this, the low stemmed trees should be planted, so that the leaves on the lower branches will protect the stem. In the western portion of Canada this precaution is not so necessary as in the eastern and more northern parts of our country. We hear of many trees, and even whole orchards being nearly destroyed. It is our impression, and the impression of many fruit men, that the low stemmed trees are the safest and best to plant in such localities.—Ed.]

FRICTION OF MACHINERY.

Dear Sir,— Will you allow space for a few words in the interest of farmers who, in purchasing reapers and mowers, are careful in the extreme about cost and a good one? There are some points which may be said to be placed before their eyes which they cannot see. On these points a little light will do good to all parties concerned.

Durability and Less Repairs.

Every machinist knows there is greater wear when the pits are not good and true, there being consequently more strains and friction, which are the worst things to have about a reaper or machine of any kind. "Too much play in the parts of a machine is a bad thing; a machine that runs easy, with little play, is the machine. Good workmen make good work, and wages that are paid in a shop is a good point to judge from as to the kind of work put in.

Material is a point that farmers cannot judge, so that the manufacturers who say they buy at the cheapest market don't buy the best. All know that best brands bring best prices. The present prices of reapers will allow of the very best make and material. Every machinist knows that separate pieces of iron running together is like a candle lit at both ends—soon worn out, and the great friction is a continuous and accumulating expense. To lessen this trouble Babbit metal of every quality that is cheap is used in reapers, costing from 20 to 9 cts. per pound, while railway companies find it cheaper to use Babbit metal that costs them 35 cts. and more per pound.

Pitman boxes are made of every description of collected brass, without judgment in many cases, and yet there is no part of a reaper that needs more attention than this; it should be of the strongest kinds, that allow of the greatest durability, and to mix metals of the best and proper quality is the business of a brass founder, and a skillful man at that. Tom, Dick and Harry are not able to do this work properly, but Tom, Dick and Harry are doing the work mostly, to the great detriment of the farmer.

Some parties advertise their reapers as having Pitman boxes of the best gun metal, while few good brass founders would think of making good Pitman boxes of gun metal, it being the most suitable for steam fittings; but he can compound a metal twice as durable under strain and friction as gun metal. Manufacturers are like the brewer who could not make good beer—he was too near the pump; he used the cheapest material.

The heaviest machine is not always the strongest; the material may be very inferior. The best will prove the cheapest to all parties.

Yours truly, J. LAW. London, Ont., July 27th, 1874.

have a curtailment of railway companies they can return bet- stockholders. Better money for Canada at which again implies a greater general injurious monopolies!

and Crops.

most severe droughts months that we have at and hay, were not it, but the late crops, offered to an alarming and have been in a place are now very has been under the or less of their win- watered their stock, having to drive in do that. The root many places a total got their growth, and light crop. The fall sown in land as hot es. In some places use some of the wheat been found, but the night, with the ther- shade, must shrivel much of the wheat then rain comes and r. We hope it may s you, but we write e wish to see the ex- meter yesterday was n our warehouse win- be at all surprised if eat sown would be so itate reseeded in the have abandoned the wheat, and will not stock cattle will be what you can, be- One bushel fed this ch fat as two, three, or ev n ten, in cold pond on the treatment

Importations.

Smith, one Clyde- ro, one Clyde mare, Ayrshire cow, and yde horses.

real, three Ayrshire

Montreal, two fillies d two years old.

, one Clyde stallion. tetsville, a two year

sheep, 7 stallions and

correct number of Leicesters, horses the several breeders are more numerous & Beattie, we hear, Craig, Snell and might a lot of fresh y. Our exhibitions their appearance.

Emporium.

had the opportunity or of this institution. opportunity to take one he time is not far dis- l be worth a pr mium, en regret that you had n earlier date. You ty, and we would re- me subscriber at each They can only cost ain hundreds in a year may be derived from it, ever returns.

ES IN CANADA.

Canada are said to be here is no reason why Provinces should not with the dairy districts There is no danger of

The Western Rural ground, and does yet, tion always produces n, if the commodity al value to the com-

This organization in numbers, and more as all those that have are fully satisfied of the advantages that will result from the time of issuing our paper of the National Farmer of the Michigan Farmer this city with the exception of the Canadian members of the Canadian Order. The Dominion meeting in Toronto last week. We anticipate that time, and general interest will be made for the Canadian Order.

Subordinate Gr

our last issue:—

GREY DIVI

Division Grango

Aug. 10, 1874.

The officers:—M. G.

Lecturer; J. C. V.

Gifford, Secretary

sure; Sister Leader

Pomona; Sister Bow

ner, Gifford and L.

Executive committee

39.—RICH

Robt. Thompson,

Cotton, Secretary,

40.—MOU

Robert Green, M.

John Green, Secret

41.—WEL

Robert S. Garner

Jonathan S. Page,

42.—PEN

Thomas Phillips

Wm. Hill, Secretar

The name of G

STAR.

The name of Gra

and into the udder by simply allowing the cow to drink impure water. Similar facts have been noticed at cheese factories, where the milk of a few cows drinking impure water has tainted the day's make of cheese.

COMFORT OF THE COWS.—Study to render the cows as comfortable as possible; this includes many things, prominent among which are regular hours for feeding and milking; have a warm, well ventilated stable; a liberal amount of bedding for them to lie upon; and last, but not least, perfectly kind treatment. On no condition should kicking, whipping, or loud scolding be indulged in—this last being sufficient, Mr. Harris Lewis says, to cause the falling off for several days of twenty-five per cent. of the amount of milk usually given by the cow.

STABLES.—It is a lamentable fact that so little attention is paid to the condition of the building in which we keep our cows. Ventilation is something that is frequently entirely overlooked, not so much, I hope, from the inattention and negligence of the owner as from his ignorance of its necessity. Warm, ill-ventilated stable will save food, but at the expense of the health of the cow and the butter. Better the cold, open barn, than the close, poorly ventilated stable; but there is no need of either. A little study and application will generally enable us to remedy both.

CARE OF CATTLE.

Cattle need special attention now, as pastures get reduced, and feed becoming scarce, they grow thin, and cease to yield milk abundantly. They should be kept in well watered, shady pastures, when allowed to run out, or in cool well ventilated stables, with plenty of well water at their service. In either case, the value of sown fodder crops will become apparent, none of which is better than corn, sown in drills and frequently horse-hoed. Many farmers are now following this method of supplying summer food, but thousands have never tried it, even on a small scale. Do not neglect thorough brushing, combing and rubbing, down of all horses, and such cattle as are stabled constantly. Labor thus invested will pay a handsome return in time. Salt should be placed in large lumps where the animals can lick it at their pleasure; notwithstanding all the theories against its use, practice has found it to be of inestimable value to live stock.

CATTLE DISEASE IN CONNECTICUT.

The spinal meningitis is reported to have broken out among cattle owned by Elmer Fairchild, a cattle dealer and farmer of Newton, Conn. Out of eleven large four year old steers, brought from Michigan, seven were seized with the disease a number of days ago. Mr. Fairchild, being unacquainted with the nature of the disease, thought the cattle had been poisoned. Two days afterward one of those affected died, and the following day another died, and a third was seized with convulsions. A post-mortem examination revealed the disease to be as above stated. The kidneys were also found highly inflamed. The farmers of this section were alarmed for the safety of their own cattle, and the case having been brought to the notice of Mr. Gould, the Connecticut cattle commissioner, he sent word that he would soon come and make an investigation for the benefit of the cattle-raising interest, and report.

SHEEP AND TAPE WORM.

The Melbourne, Australia, Leader, in relation to hydatids in sheep, and the transformation from thence into tape worms, says:—The annual loss of young sheep through becoming "cranky" is considerable, yet on many, if not all of the sheep stations, the disease is actually propagated unwittingly. When a cranky sheep is put out of its misery its head is divided and thrown to the station dogs in an uncooked state. Thus the hydatid in the sheep's brain becomes a tape worm in a dog, and in a very short period millions of tape-worm eggs pass from the dog, and are drifted about by the wind and are carried by water. For weeks and months they retain their vitality, unaffected by heat or cold, rain or drought. Sheep, in picking up their food or drinking water out of shallow pools or crab holes swallow one or more of these eggs, which in due course gets into the blood circulation and thus to the brain, to form a hydatid and make another sheep cranky. Thus the sheep and dog react upon one another.

that is, pork that will not fry away too much, and is of a No. 1 keeping quality. This among all breeds for all are kept here. We are fattening a pig for our own use of mixed breed of Chester white and Berkshire, and we feed him old corn ground, and give him water to. We expect the first quality of pork, and we shall not be disappointed. We have practiced this for years and seen practiced, and with unvarying success. The pork is always solid; cooks well in all forms; is sweet and toothsome, and more wholesome than the rank bacon. We have no difficulty in keeping our pork. Cor. Country Gentleman.

DRY EARTH FOR BEDDING.

R. Giddings, of Illinois, saves the manure and adds to the comfort of his stock by using dry earth in the stable during dry weather, with pulverized clay and scrapings, or common soil. With this he covers the floor of each stall three inches deep, and then places the litter for the animal, bedding on it; by this means all the urine will be absorbed, and its wealth of nitrogen saved, and such is the absorbing power of dried earth, one three inch flooring will not be so thoroughly saturated in a long time as to require replacing. He says his experiment required but one bin of pulverized earth to absorb the urine of ten or twelve cattle during the stabling season, and that two men with a team filled the bin in one day. One ton of the saturated earth is worth more than the same weight of even fresh saved dung. The aggregate amount of plant food thus saved from the stalls is fully double, and in much better condition for use.

SHEEP KILLED BY DOGS.

On Wednesday, 15th July, Mr. N. McLennan, 9th concession, Drummond, had eleven sheep killed and nine wounded by dogs, and that too in broad day-light. It is not many weeks since another farmer in the same neighborhood had his stock diminished in the same way. This is one of the results that has naturally followed the action of the County Council, a few years ago, in doing away with the dog tax in this county. The tax being removed, the number of dogs has since steadily increased, until many farmers keep two or three of these noisy, and in many cases useless and destructive, animals around the premises. A good watch dog, or a dog for the churn, is now-a-days almost a necessity for some farmers, but there are so many useless and superfluous canines held in ownership, both in town and country, that they become in a measure a public burden, for they have to live and find subsistence as well as the best dogs in the land.

No wonder, then, that our sheep folds are now and then devastated, and that our highly prized Leicesters, Cotswolds, &c., become a prey to these pestiferous curs. By all means let the tax be re-imposed, and a diminution, if possible, made in the staff of dogs kept in the county. Few have any idea of the number of sheep killed in a year by dogs. Comparatively few cases in point find their way into the newspapers, and therefore outside their own confined locality these ravages are never known.

Farmers should be extremely careful about the large dogs kept about the premises, and the moment they discover them to have acquired a habit of sheep killing, they should be at once cut off as culprits of the land, even if they do happen to be good watch or churn dogs.—Ottawa Citizen.

TREATMENT AND CARE OF COWS.

WATER.—At least have a supply of pure water in the yard for winter—better if it could be in the stable and the cows not obliged to go out of doors except in pleasant weather for exercise. Many farmers lose more dollars yearly than it would cost to dig a well in the yard, by driving their cattle, during the inclement weather of winter, to some ice-bound brook or frog pond to slake their thirst. The cows come back to a good feed of hay and considerable time to restore the natural warmth of the animal; and this amount of food is lost. The importance of pure water has been proved by Prof. Law, in some extensive investigations, where the effects of filthy and stagnant water could be traced through the entire system of the cow, through the milk and butter; and he is of the opinion that diseases of the human family might frequently be traced to the use of impure milk. In the instance referred to, the organisms found in the stagnant water were found diffused through the blood and milk of the cow, and produced a diseased, feverish condition of the system. This investigation, made by a careful observer, proves conclusively that the germs of disease, and of a milk-spoiling ferment, can be introduced into the blood

it only six inches above the surface of the ground, and lay a floor at the bottom of your lower joists; then fill in level to the top with tan bark or dry saw dust. Then lay your floor; make two ventilators through the floor, 8 x 8 inches, with a slide over each to close; use 10 inch studding; board and batten on the outside, and line up with inch stuff on the inside; fill up between the boards, now, with dry saw dust or tan bark, put on your upper joists and ceiling underneath with inch stuff; make an upward ventilator through ceiling, 10 x 10 inches, with trap to open and close at pleasure; then lay on ten inches more tan bark on the ceiling. Put on a good shingle roof, have all the outside lumber dressed and painted nicely, and, for all the cost, dress the inside lining as well. Make a good door to open to the inside, the upper half to be filled with glass; also have a door to open to the outside, and get made a straw tick just the size of your door, and fill it with straw ten inches thick. This is to fill up between the two doors.

Now, get your repository built and everything ready; then let me know and I will tell you next how to pack up your bees ready to put into winter quarters.

A. C. ATWOOD.

STOCK & DAIRY

PATENT ARTIFICIAL CHEESE.

The Utica Herald remarks as follows upon the manufacture of a new kind of cheese, for which a patent was recently granted:—

"The insertion of the prepared solid fat of the body to take the place of the fat taken from the milk is not alone employed to make an imitation of butter. It is reported as fat and buttermilk are employed to make an artificial butter, so fat and skim-milk are used to make artificial cheese. The arms involved are similar in either case, although the methods of manipulation are, of course, varied. It is reported that a factory is in operation in Brooklyn, where the whole margin expressed from the intestine fat of cattle is intimately mixed with skim-milk, and the rennet then poured in, producing a curd rich in oil, which can be cured and sold for cheese. Here we have a process for putting back into skim-milk an animal oil in the place of cream, which has been practiced nearer Utica than Brooklyn. It is an ingenious device for adulteration, and nothing more or less. No matter if the oil derived from the tallow be chemically pure, still the mingling of it with milk to take the place of cream is adulteration, and though it may not be a change of composition which produces an unwholesome material, it is a change which occasions a loss of value. Thus the schemes for artificial butter and cheese are fraudulent at the outset, and even when we suppose that none but the purest oils and fats are used. If the compounds come into any wide consumption, there will be materials used variously disguised, which are wholly unfit for entrance into the system. Then will the evils at the enterprise which now seems only mildly objectionable, be recognized and deprecated."

QUALITY IN PORK.

We all know what a difference there is in pork. Breed has something to do in this matter, but not so much as many suppose. It is the kind of feed that makes kind in pork. Use milk or whey largely, and your pork is sure to be soft, flabby and will fry away at least half. What is left is not relishable. Hence our dairy pork is our poorest pork, varying according to the amount of gain that is fed. So still fed pork is in bad repute. Miscellaneous feed makes ordinary pork, often quite ordinary. Slop will do no good; there seems to be too much water.

The grains are what is wanted to make good sweet pork—pork that is solid and will fry well. Rank pork is unendurable, and yet there is much of it, and some people like it, like the pork from large, strong hogs.

A dirty, offensive sty is an element no doubt in producing strong or even fetid pork. Have clean quarters, a clean animal, good ventilation and feed grain. For drink give cold, not in any way foul water. Corn for feed is the best, and old corn at that. Do not house too close nor feed too sharp; look to the convenience of the hog; and fat him so that he is in good condition, not over fat, with possible disease parts about him in consequence, the pork being affected by it.

Old corn submitted to heat will yield most pork, but it is doubtful whether the quality is as good as when fed raw. So probably with all the grains.

We have had chances to note clear distinctions in the quality of pork. Where the dairy is excluded and the grains are fed, there is good solid pork; and, unless the hog is old and large, we find it to be sweet. We find it difficult to get good pork among the dairymen,

PORK RAISING.

SIR,—When I got some seeds from you last spring, I promised to write you and tell you how I succeeded in fattening pigs on grain alone, as regards profit and loss. I was very particular in my account with them. The stock consisted of a litter of ten white Chester pigs, which came on the 2nd of September and were killed when 8 months old. These pigs were warmly housed, cleanly kept and highly fed, and when 8 months old they only weighed on an average of 175 lbs. each, and it has been a question in my mind if I did not feed them too highly and get them too fat to start upon. I am inclined to think that if the food had been lighter for the first four months, and the same for the last four, that they might have been as heavy, the expense less, and the profits greater.

I should be glad to hear from any one on this point; as it was, I fed them on cooked Indian meal, the corn of which cost 67 cents per bushel, and I sold the pork for \$10 per cwt., realizing \$50 profit, considering the manure to pay for the trouble. Usually corn is higher and pork lower. I shall be happy to hear from any one who has a better way of pork making.

Now, Mr. Editor, I would like to ask you if I can sow clover seed this fall and get a full crop for early feeding (soiling) next year, and whether Lucerne will do well in Canada for soiling purposes. Please send me down a small parcel of Trifolium, which I may sow this fall. For late feeding—August, September and October—I do not think I shall find any thing much better than the Southern corn, though I believe that sweet corn is taking the lead in some good dairy regions; the leaves are much larger, and about the same weight growing upon an acre, but I do want something I can commence to feed by the 1st of July, at least. If you or any of your correspondents will assist me by telling what this something is, you will assist one who does not wish to be behind the times. Yours truly,

J. R. BRIDGES.

[We send you a little Trifolium to try. The Lucerne appears as if it will answer for an early cut orchard grass; it will make an early feed. Rye also will be deserving a trial for the purpose you mention. Perhaps some of our readers will answer your questions. Clover sown this fall will not be fit to turn into early next spring; in fact, clover sown in the fall after this date is liable to be killed by the frost.—Ed. F. A.]

CROP REPORT.

SIR,—The drouth has been most injurious in this part of the country, much of the soil being light. The wheat is not much more than half the crop it was last year; oats are too short to bind in many places; some pick the peas by hand because they are too short to cut or pull with the scythe; potatoes are very small, and other vegetables and roots are a complete failure. Fruit does not do well here in the best of seasons; what little there might have been is withered and dried so as to be useless. The crab apple appears to stand the best, and is the safest fruit to grow in this vicinity. Fires have done much damage to farms and fences in these parts.

D. L.

Ottawa, September 15th, 1874.

OCTOBER MANAGEMENT OF BEES.

The October work in the apiary is light compared with June and July. Still it is important, and cannot be neglected without loss. With the bees the harvest is over and the summer is ended; what is not done now will go undone unless they get help. Weigh every hive; if it is found that any can spare stores, exchange cards with some hive that is needful; after that is done, if any are found still light, feed them now while the weather is warm with a molasses made from No. 2½ coffee sugar, on a plate, with a few sticks laid across; place the plate on the honey board, under the top cover. Feed at night to prevent robbing. The bees will carry the molasses down and place it in the cells, and cap it over the same as if it were honey that they had gathered from the flowers. Do not fail to feed night after night before the weather gets cold, until you get the hive up to weight.

Plan of a Wintering Repository.

Bee-keepers who have not a proper place to winter in, would do well to look about them in time and consider what they are going to do with their hives next winter. A good, dry cellar is good, if the bees are packed away properly, but cellars, as a rule, are too damp. A dark, quiet room in a warm house will do, but do not put them where there is too much noise or light, or where they will feel the influence of fire. The safest way is to build a repository at once, and have it right. A place 12 x 14 outside and 7 feet high, will hold 100 hives; use 2 x 10 inch stuff for studding and joists. Set the sills on good ocellar posts, raise

Patrons of Husbandry.

The Grangers.

This organization is gradually increasing in numbers, and must continue to do so, as all those that have joined that body are fully satisfied of its utility and the advantages that will accrue. About the time of issuing our last journal, the Master of the National Grange and the Master of the Michigan State Grange came to this city with the expectation of enrolling Canadians in a state grange; but the members of the Canadian Grangers having established the Dominion Grange, did not feel inclined to come under the American control. The American brethren were not quite satisfied in regard to Canadian independence in this matter. The officers of the Dominion Grange invited the American officers to a lunch, and matters were as far arranged as they can be at present, for fraternal relations between the National Grange and the Dominion Grange.

The Dominion Grange will hold its meeting in Toronto during the Exhibition week. We anticipate a lively discussion at that time, and general arrangements will be made for the extension of the Canadian Order.

Subordinate Granges established since our last issue:—

GREY DIVISION GRANGE.

Division Grange No. 2 was organized Aug. 10, 1874. The following is a list of the officers:—M. Gardner, Master; J. Petch, Lecturer; J. C. Whitelaw, Steward; A. Gifford, Secretary; Wm. Laycock, Treasurer; Sister Leader, Ceres; Sister Gifford, Pomona; Sister Bowes, Flora. Bros. Gardner, Gifford and Leader were appointed an executive committee.

39.—RICHMOND GRANGE.

Robt. Thompson, Master, Napanee; Lydia Coton, Secretary, Napanee.

40.—MOULTON GRANGE.

Robert Green, Master, Attercliffe P. O.; John Green, Secretary, Attercliffe, P. O.

41.—WELLAND GRANGE.

Robert S. Garner, Master, Welland P. O.; Jonathan S. Page, Secretary, Welland P. O.

42.—PENNIVILLE GRANGE.

Thomas Phillips, Master, Bond Head; Wm. Hill, Secretary, Bond Head.

The name of Grange No. 26 is WESTERN STAR.

The name of Grange No. 31 is BRANT.

Land Agency.

We would call the attention of the public to the advertisement of G. B. Harris & Co., of this city. Many of our subscribers are desirous of either purchasing or disposing of land. Messrs. Harris & Co. have an extensive correspondence both in Europe and Canada, and persons might save themselves much trouble in procuring lands, and might dispose of those they are willing to sell to better advantage by corresponding with them, as much time and money is expended by purchasers in hunting up lands to suit, and many farms would be sold if they were only known to purchasers. Whether you wish to buy or sell, give it publicity, and the desired result will be obtained. All business men find it necessary to let their wants be known. This agency does the advertising and corresponding, and receives no pay therefor unless the sales are actually made.

Scott Wheat.

When this wheat was first imported into Canada it had a few grains of bearded wheat with it. We know of no one who has taken the pains to pick them out, and thus the grain shows a little mixture when growing. We did not grow quarter enough to supply our orders this year, but supplied the best we could procure. There were a few grains of chess and even cockle in some lots, but we were careful to select from farms that had no bad seeds on them.

A New York baker advertises biscuits so exquisite that persons "sigh as their flavor dies away upon their breath."

Guelph Exhibition.

We paid a visit to this Exhibition on Wednesday. The attendance was not as large as it was last year, and the entries were not as numerous, but, on the whole, the Exhibition was a good one. The best display of draught horses that has been made in Canada was to be seen; also the best display of poultry.

Very few sales took place of any kind of stock. There are too many of these large Exhibitions in the western portion of Canada to allow breeders time to attend them all. Four large exhibitions, each taking a week to attend them, are rather more than the large breeders are willing to attend to, and the small breeders cannot afford the time or money to attend all.

Trifolium.

Each purchaser of the Scott Wheat had a small quantity of Trifolium or French clover put in a package in one of their bags. This is for you to test; sow a little in the fall and trample or roll the land where it is sown.—It may be of value to you.

We also sent each purchaser a little of the Seneca or Clawson wheat; this is also for you to try. Good reports are sent about it, but we think it will not be found as hardy as the Scott Wheat. It deserves a trial.

Agricultural Items.

THE POTATO.

The crop is in danger, although neither fungus nor beetle have assailed it anywhere. The tubers have ripened prematurely, and generally speaking, the crop is light, but good. Now, the danger it is in is this—that it is ready to start into a second growth in the event of rain occurring quickly and copiously. What is called "supertuberating," or the growth of new tubers above the old ones, is a destructive process, for the old tubers that give birth to their fecula, and become flinty and tasteless in consequence. To prevent supertuberating, the crop must be lifted and clamped in the coolest and driest place that can be found for it, and it will be safe for any reasonable length of time.

To wait until it is dead ripe is not necessary. If done growing and begun to ripen, it is perfectly safe and prudent to lift, for the momentary exposure to the atmosphere, and separation from the succulent haulm will hasten the ripening, and render the crop less disposed to grow than if allowed to ripen perfectly in the ground.—*The Gardener's Magazine, England.*

STORING CABBAGE FOR WINTER.

Mr. A. H. Mills, Middlebury, Vt., writes to the New York Farmers' Club on this subject, as follows:—"Of the various methods recommended for storing cabbages, I have found none to equal the following:—Cut the cabbage off above the ground, leaving the roots behind; take them to the cellar and stand them up on the stumps on the cellar bottom, where they will keep cool without freezing. It is well enough to make a small hole an inch or two in depth to receive the stumps, especially if your cellar is a dry one; and, if very dry, moisten the ground a little. Treated in this way they will keep green and fresh all winter without growing, for the reason that they have no roots to draw nourishment from the earth. Some small fibres will start out from the stumps, but they will only serve to keep the cabbages green and fresh."—*Union.*

PROPAGATION AND CULTURE OF EVERGREENS.

As a general rule, it is far better for inexperienced persons to buy plants than to attempt growing them from seed. The constant watching and care required until woody fibre is formed, will seldom be given except by those who make a business of it.

The soil of seed beds should be composed largely of sand and well rotted leaf-mould or soil from the forest. It should be deeply spaded, and well pulverized; it is desirable to have this done in autumn, that the seed may be sown as soon as the surface of the ground thaws in spring, or even before, if sand is laid by for covering to the depth of twice the diameter of the seed. Four feet is a convenient width of seed beds. The seed is sown broadcast at the rate of two-thirds of a pound to the rod in length of bed, for seeds of the size of Norway Spruce, Scotch Pine, and one and one-third of a pound of European Larch—the latter requiring the same treatment as Evergreens.

Partial shade must be given. If only a small amount be sown, it is as convenient to have it one foot above the ground. Where there are several beds, it is best to elevate the shade high enough to permit standing erect beneath it. Brush or corn stalks may be used for the shade. If the weather be dry, occasional waterings must be given.—*Farmer (Eng.)*

SHORT-HORNS IN ENGLAND.

The demand among English farmers for short-horn bulls is greater this year than last. At the English sales there have been 74 more sold than last year, and at an average advance on last year's prices of \$10 each. Last year the total amount invested in young bulls at the sales was \$40,000; this year, \$55,000. This answers the question as to the country getting overstocked with short-horns, as some in our country have unwisely supposed it would. Short-horns are very much more numerous in England and adjacent islands than any other breed of cattle. What we call natives here are hardly seen there, their cattle being bred up by thoroughbred crosses. Though there are herds of thoroughbreds in nearly every neighborhood, still the increase is wanted, and there are but few English, Scotch or Irish farmers who are not well posted in all the advantages to be gained by keeping improved farm stock. They are particularly exacting as to the points of sheep and pigs, and are every year becoming more so as to cattle.—*Western Farm Journal.*

THE CROPS IN IRELAND.

Wheat everywhere will be a good crop, and early sown barley will also be abundant, but late sown barley is light. Oats are reported to be an average crop in some districts, although short in the straw, but in other parts this description of cereal will scarcely come up to the usual average. The lightest crops will be found where the seed is sown late, where the land is either poor or in bad heart. Reports from the County of Down state that the flax crop has improved beyond expectation, but in some parts of the North it is a short crop. The hay crop, in general, has been light; but it has been observed that where suitable top-dressings were applied at the proper season, the yield is, on the whole satisfactory. Owing to the fine weather during the hay harvest, the quality is good. Potatoes are reported to be promising in all parts of the country, and the quality of the early kinds are first rate.—*Farmers' Gazette.*

TURN YOUR ILL LUCK TO ADVANTAGE.

Many farmers have been unable to sow and plant the amount of land they intended, the past spring, and consequently are much discouraged, that they have such small crops growing. It is perhaps inconvenient to wait, but this seeming ill luck may be turned to advantage. The ground you could not work in the spring may now be worked at your leisure, and it is the testimony of every one who has tried it, that no outlay of the farm pays better than summer tilling; and the more the ground is stirred the better provided it is in proper condition to work. In the spring the press of work usually forbids the expending of time to get it just right for stocking down for the mowing machine; but now you may prepare a piece to your liking. Then there are other advantages: the chances for a catch are ten to one in favor of seeding in the fall; and if you have manure to spread on, you are sure of good and lasting results; whereas that which was applied in spring has already lost its elements of grass food. So much of the work is out of the way for next spring and in for the most necessary, least exhausted and best paying crop of the East. There are various opinions as to the best time for fall-seeding. Some say August, others say September and October; others again say about the time the ground shuts, or the first snow. This latter we consider the safest time. A still further reason presents itself in favor of this course, namely: it requires less than half the usual amount of seed—if evenly sown. If you sow the usual amount of good seed it all comes, but will do nothing until the larger part has died out.—*Ex.*

WHEAT CULTURE.

A distinct proof is given that common salt has the power of liberating ammonia from soils that have been highly manured from rotten dung, Peruvian guano, and other am-

monical manures, which in sandy soils especially, exist in feeble combinations, that really undergo decomposition when brought in contact with solution of salt. In the case before us, a portion of chloride of sodium (salt) acted upon these feeble ammonical combinations, producing on the one hand soda, which became fixed in the soil, and on the other chloride of ammonia, which passed into solution.

This analytical result throws light on the function of salt in agriculture. It is well known that salt is most beneficially applied to light land after a good dressing with barn-yard manure, alone or in conjunction with Peruvian guano, and that its application under these circumstances is particularly useful to wheat crops in general. Practical experiments on a large scale have shown, indeed, that by salt alone a large increase of grain was produced off land in good heart—that is, had been previously well manured. In this case the application of salt evidently has the effect of liberating ammonia, and rendering it available for the immediate use of our crops, which we know from experience are much benefited by it. On land out of condition salt must not be expected to produce such favorable effects, and as this manure no doubt is sometimes put upon land exhausted by previous cropping, in which, therefore, it does not find ammonical compounds upon which it can act, one reason becomes evident why salt is inefficient as a manure in some cases, while in others its beneficial results are unmistakable.

Peruvian guano and salt is a favorite dressing with many farmers, and justly so. It has been supposed by agricultural writers that the benefit resulting from this mixture are due to the property of salt to fix ammonia. I have shown, however, elsewhere, that Peruvian guano does not contain any appreciable quantity of free ammonia. While theory has erred in ascribing to salt a power that it does not possess, the practice of mixing guano with salt is one that can be confidently recommended. So far from fixing ammonia, salt rather tends to liberate and disseminate through the soil the ammonia contained in the Peruvian guano applied to the land, which becomes fixed by the soil.—*Prof. Voelcker in Royal Agricultural Gazette.*

THE ONION MAGGOT.

The maggot is the onion grower's worst foe, and those who endeavor to crush the power of an enemy before it becomes troublesome, are wiser than those who endeavor to put a stop to its progress, after it has become formidable. It is generally admitted that the maggot is the onion fly in its larval state, or in its first state after leaving the egg. It is in this state of its existence, and no other, that it can be styled an insect injurious to vegetation; and if we can destroy the eggs, or prevent their being deposited in the onion fields, we are at once rid of the enemy.

Having noticed some of the habits of the onion fly, I am inclined to the opinion that they select, as far as possible, partially decomposed onion tops in which to deposit their eggs. When onion tops and scullions are allowed to decay upon the surface of the ground, in process of time they become a natural breeding bed, and attract flies from the surrounding country in larger numbers than can be accommodated by those beds. They next attack the weaker plants, and sometimes those which are making a strong, luxuriant growth, to puncture and deposit their eggs in the stalk. If the weather is warm, these eggs hatch in a few days, and the maggots commence their depredations upon the crop.

It has been my own practice carefully to turn under all refuse matter upon the onion field, late in the autumn, dress liberally with well lined manure, leaving it upon the surface exposed to the ameliorating influence of the winter's frost, and the drenching rains of spring time. Sow early in thoroughly pulverized ground, and attend carefully to the after culture. With this treatment the crop usually gets an early start, makes a vigorous growth, and is able to withstand all attacks of the enemy or changes in the weather. I think damage by the maggot in this vicinity would not amount to five per cent. of the crop in the most unfavorable years.—*Ex.*

Oct., 1874

ly allowing the Similar facts factories, where drinking impure make of cheese. study to render possible; this in- at among which g and milking; or them to lie perfectly kind should, kicking ng be indulged t, Mr. Harris ring off for se- per cent. of given by the

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CONNECTICUT.

reported to have owned by Elmer d farmer of New- large four year Michigan, seven ase a number of ing unacquainted ease, thought the Two days after- and, the fol- and a third was A post-mortem disease to be as s were also found mers of this sec- safety of their own been brought to the Connecticut ent word that he an investigation -raising interest,

WORM.

a, Leader, in rela and the transforma- rmas, says:— sheep through be- able, yet on many, ons, the disease is tingly. When a its misery its head station dogs in an e hydatid in a dog, d millions of tape- g, and are drifted e carried by water. ey retain their vi- or cold, rain or up their food or in allow pools or crab of these eggs, which e blood circulation orm a hydatid and ther.

The Horse.

KNEE SPRUNG.

Nearly everybody knows what is meant by a horse being sprung in the knee. For the information of those who are curious to know how this condition is produced, I will explain one of its causes.

The bones of the foot and pasterns of the horse do not stand perpendicularly above each other, but slope backward, a considerable portion of the animal's weight resting on the tendons that pass down the back of the leg; and hence the greater the slope, the more strain the tendons have to bear. If we put a horse to stand with his head up hill, more exertion is needed to sustain himself than if standing on the level. The reason is that the bones of the foot and pastern are thereby placed more obliquely, and more of his weight is thrown upon the tendons and muscles, and thus a wearied horse, if left to himself, always feeds with his head down hill.

But we often add to the slope of the foot and pastern the same by adding to the length of the hoof or unnecessarily lowering the heels; as by placing the horse's head up hill, and with greater permanency of effects, as we leave him no power to relieve himself. Often the two conditions are conjoined, the toes are injuriously long, and the horse is confined nine-tenths of his time in a sloping stall. Here the muscular exertion of sustaining his weight soon becomes irksome. He shifts from one foot to the other, but finds it only a temporary relief. The muscles connected with the tendons that pass down the back part of the leg to the foot soon begin to relax, till the weight falls upon the ligamentous straps, behind and below the knee. Then the bones of the foot and pastern become still more sloping, and to sustain his body perpendicularly above his feet, and still more to relax the muscles, the knee bulges out in front to a line with the projecting toe. This at first occurs only now and then, when the horse is wearied or proper when roused up. By and by, however, it becomes a habit, and the causes being permanent and constant in their action, the effects soon become the same, and we have the horse for life sprung in the knee.

Many a valuable horse, tottering on the brink of this condition, has been saved and brought back to usefulness by having his feet put in proper shape and putting on them high-heeled shoes, and letting the horse run at grass or stand in a loose box, while others on whom the torture of long toes and sloping stalls was preserved, will have become permanently useless.—*Western Farm Jour.*

WORKING CATTLE AND HORSES.

The following editorial, taken from the *Western Rural*, may throw some light on the question of "Horses or oxen for farm work."

The question is often asked, why do not farmers use cattle more for farm work, since they are kept at so much less expense than horses? The reason is, they are not more cheaply fed considering the amount of labor performed, and they are too slow to allow their use to become universal, when labor is scarce and consequently high. The horse consumes his feed, grinding it thoroughly, and it immediately undergoes the process of digestion, while at work; not so the ox. The food is roughly masticated, passes into the first stomach, is there still further softened and masticated and passes into the third stomach; true digestion begins, and, when received in the fourth the true digestive stomach, the process is continued by mixture with the gastric fluid from its walls, and is converted into chyme; it then passes out and enters the first bowel, where it receives the secretion from the pancreas and the liver and then becomes chyle. Passing along the bowels, the nutriment is constantly absorbed by the numerous ducts and by them passed into the blood, by which it is distributed to keep up the wear and tear of the body, and build up new structures, where the labor is not so severe as to constantly exhaust the food which is supplied.

From this it will be seen that, although the horse consumes more time in taking his

food than the ox, when once taken the animal is ready to labor until this sustenance is assimilated and the force given by it consumed. With the ox it is different. He must have time to re-chew his food, or ruminate. A slow work, if not exhaustive, this may be and often is performed while at labor, if of such a kind as to afford resting spells, but if this labor be continued and heavy, as in ploughing, etc., the animal is prevented from ruminating until at rest. For this reason an ox should never be employed for more than five or six hours each day in exhaustive labor, leaving three hours for gathering its food, if grass, add an equal time for rumination; this, with its labor, and twelve hours rest, occupies the twenty-four hours of the day; for the ox, unlike the horse, cannot rest without lying down.

The horse, on the other hand, when at work, is fed on concentrated food, oats and corn, with what may be necessary for a divisor to his food. The animal will require from one-half to three-quarters of an hour to properly masticate each mess of grain, the hay being principally consumed during the night, and early in the morning before feeding time. If fed only on grass, or hay, he will perform no more work than the ox, for nearly the whole time is consumed in gathering food enough to support the animal economy. The stomach of the horse is small, and eating and digestion go on simultaneously. Therefore in all new countries, where grass is plenty and grain is scarce, oxen are generally used; but as soon as the farmer is able to procure grain enough to feed horses, or mule teams, oxen are quickly abandoned for horses, except for slow work, as hauling fodder, carting manure, and other labor of that kind, for which they are always available.

If, however, cattle are fed liberally with meal or other concentrated food, they will be found to do nearly as much work one day with another at ploughing, harrowing, and other slow work as horses, for in this case so much time is spent in rumination, and the food being prepared ready, so much time is not taken in eating. Indeed we have known cattle so feed for a considerable length of time, to perform fully as much work in cool weather at ploughing, etc., as horses, and then there is this additional advantage that when disabled for active work, they are fit for human food.

We think that, on the majority of farms, one yolk of cattle might be profitably employed to each two or three pair of horses, for there is a variety of work that they may perform to good advantage; but, if so kept, they should be liberally fed, for any animal forced to perform labor at the expense of flesh and muscle already laid on, does so at a loss to the owner.

BOTS IN HORSES.

The complete inefficiency of the various popular panaceas for bots in horses may be better understood when we come to know something of the nature of these persistent parasites. They are not worms, but larvae of a fly, and are possessed of remarkable powers of endurance under adversity. The most sinuating substances are but as milk and honey to them, and in an instance recorded, a colony of them attached to the stomach of a dead horse were in no way inconvenienced by an hour's exposure to a bath of spirits of turpentine. But when whale oil was poured upon them they let go their hold and died almost instantly. Now, whale oil being thus indicated as an effective dose, and being aperient in its action upon the horse, would seem to be the remedy that should be chosen before any other. At least it might be well to have some experiments made and the result carefully noticed and made note of.—*Practical Farmer.*

WATERING HORSES AFTER MEALS.

A full drink of water, immediately after being fed, should never be allowed to horses. When water is drunk by them, the bulk of it goes directly to the large intestines, and little of it is retained in the stomach. In passing through the stomach, however, the water carries considerable quantities of the contents to where it lodges in the intestines. If, then, the food of horses' stomachs is washed out before it is digested, no nourishment will be derived from the feed. In Edinburgh, some old horses were fed with split peas, and then supplied with water immediately before being killed. It was found

that the water had carried the peas from fifty to sixty feet into the intestines, where no digestion took place at all.

Mr. Cassie is quite correct in the views set forth regarding the injurious effects of large quantities of water swallowed immediately after eating. A small quantity of fluid swallowed along with, or immediately after dry food, beneficially softens it and assists in its subdivision and digestion. An inordinate supply of water, or of watery fluid, on the other hand proves injurious. It dilutes unduly the digestive secretions; it mechanically carries onward the imperfectly digested food, and thus interferes with the proper functions of the canal and excites indigestion and diarrhoea. These untoward effects are especially apt to occur where horses freely fed and too liberally watered, are shortly put to tolerably quick work. There is no more infallible method of producing colic, diarrhoea, and inflammation of the bowels. The horse is not peculiar in this effect; dogs, and even their masters, similarly suffer from copious draughts of water immediately after eating much solid food.—*N. Y. Herald.*

A writer in an exchange paper says truly:—"Many good horses devour large quantities of grain and hay, and still continue thin and poor. The food eaten is not properly assimilated. If the usual feed has been unground grain and hay, nothing but a change will affect a considerable alteration in the appearance of the animal. In case oil meal cannot be obtained readily, mingle a bushel of flaxseed barley, one of oats, and let it be ground into meal. This will be a fair proportion for all his feed. Or the meal of barley, oats and corn, in equal quantities, may be first produced and one fourth part of the oil cake mingled with it, when the meal is sprinkled on cut feed. Feed two or three quarts of the mixture three times daily, mingled with a peck of cut hay and straw. So long as the animal will eat this allowance the quantity may be increased a little every day. In order to fatten a horse that has run down in flesh, the groom should be very particular to feed the animal no more than he will eat up clean and lick the manger for more.

WALKING HORSES.

Walking is as valuable a quality in a good horse as speed—and a horse that walks strong and fast is a valuable horse for all general uses, and especially for farm work and heavy teaming. Among our farmers but little attention is given to the development of this quality, but those who have valuable team horses which are employed much on the road in the drawing of heavy loads, take great pains to have them walk well. We know of one man who has a very valuable pair of five year old horses, which have never trotted a step, and he says he would not have them trot for any sum.

He is teaching them to be good walkers, and as they are used entirely on the road, he justly deems this quality one of much importance. They are never urged forward by the whip, but are well fed, reasonably loaded, and are always ready and prompt to do whatever is required of them. This gentleman, who has had a long experience among horses and cattle, says that a nervous, uneasy man, who is always urging his team forward and constantly keeping them strained up to a high tension, does not get as much work from them in a day as a man who is more quiet, who gives them more freedom, and who does not himself get fidgety or uneasy. All who have the care of team and work horses should bear this in mind.—*Maine Farmer.*

A NEW HORSE DISEASE.

Stable keepers are again alarmed by a contagious horse disease which appeared in some of the sale stables last winter, and has since been spreading at the South End and Roxbury. The symptoms are the loss of appetite and weakness, followed by a slight cough and discharge from one or both eyes, and from one or both nostrils. Sometimes the case ends here and disappears in a few days. Then again it manifests itself by a sudden closing of one or both eyes, or severe swelling of the legs or sore and ulcerated throat, or with an eruption all over the body similar to the hives in a human being. The horse becomes drowsy and shows a strong disinclination to move. These symptoms all yield readily to proper treatment, and as the symptoms vary so exceedingly no specific remedy can be set down. A fatal result is rare, yet at the present writing there are over one hundred horses at the Highlands, N. J., that are afflicted with the disease, which is increasing.

It lasts from three to ten days. A veterinary surgeon, says that all animals troubled with the disease should be kept to themselves and particular attention given to proper ventilation and cleanliness, as experience has shown that in the cleanest and best ventilated stable the illness has shown itself in its mildest form; yet these have not been exempt from the disease, as it has manifested itself in pastures outside the city limits.—*N. E. Farmer.*



AGRICULTURAL.

A GERMAN FARM.

The farm of which we are about to speak is a fair average representation of German cultivation of the soil and the carrying on of mixed husbandry. It lies by the Oder, in the vicinity of the walled town of Custrin, which received some of the first French prisoners during the late Franco-German war, and is about forty miles east of Berlin, in the Province of Brandenburg. The country is rolling, but not hilly, and the soil is a productive sandy loam.

This farm consists of 160 acres, most of which is upland, but some of it is in the fertile valley of the Oder, and this latter has not been so long under cultivation. The upland was once a pine forest, and was first cultivated the year 1552. Mine host, Mr. Leidecke, whose pride is the thriftiness of his acres and stock, and the well being of all around him, is the tenth man that has owned these possessions.

Although the land has been in cultivation 320 years, a judicious system of cropping, rotation and manuring has preserved its virgin fertility to a wonderful degree. The farm has 150 acres under cultivation; 16 is meadow, and the rest is occupied partly by buildings, but most of it is raw land in the valley, which yields some pasture and also some turf for burning. There are 40 head of cattle, 100 sheep, 7 horses and some swine upon it. Fifteen of the cattle are being fattened for market.

The rotation extends over a period of eight years, and is as follows:—

1, Potatoes, well manured; 2, Barley; 3, Clover; 4, Rape, well manured; 5, Wheat; 6, Rye, and one-half potatoes or oats; 7, Peas and green fodder, well manured; 8, Rye.

The farm is thus in eight years well manured (the manure being spread mostly in the winter season), besides the good that is effected by the rotation, which yields a proportionate amount of articles for the market and for the necessities of the people. Another rotation that is used by many in the vicinity is also thought to be good. It is as follows:—

1, Potatoes, well manured; 2, Barley; 3, Beets, well manured; 4, Barley; 5, Oats; 6, Clover; 7, Rape; 8, Wheat. Clover does well the first year, but not the second, hence it is plowed under after one harvest. Rape, which is grown principally for the oil, brings a round price in the market. Beets are grown to some extent for production of sugar.

The first thing that an American notices is the absence of fences and the almost universal manner of the farmers and laborers congregating and living together in small villages, and their not large farms extending out all around, and perhaps an avenue of poplars extending through the centre leading to another village or city. The house is of brick, with tile roof, scarcely ever more than one or one-half stories high. It fronts on a street of the village, and is surrounded on the other three sides by a similarly constructed building, save that it is much larger, and which encloses also a yard with the dwelling. This latter building has several apartments for horses, cattle, sheep, swine, geese, grain, and sometimes for laborers. Geese, which are much reared in Germany, and whose flesh constitutes an article of much interest in the hotels and restaurants, are often herded by some urchin upon the stubble and other out-of-the-way places. The cows and sheep are also herded, but everything is under roof at night.

Hand labor is cheap and workmen are plenty, hence labor-saving machines and rapid working are little known. Most of the

plows are inferior, with two small wheels. Much of the plowing is usually three together, rope traces that are board or iron that are above the eyes. But many of the fields are year. Some are shallow, and again deeper, but in the s. Weeds are seldom s.

Mr. Leidecke has paid yearly, besides \$25 to \$50, according to the quality of the cattle are mostly of are moderately good and well adapted for tending of So. Horses are universal and well kept. But praised.

The Germans do not contend with us also do not have us in general, though laudably of German general information praise the practical laborer, nor the best Prairie Farmer.

Of the various from town besides are in a concentration piled with manure hops are worth about of stable manure leaves or some soda, it makes an beds in which to seeds which cannot least crust. Who had, this is excellent beds, &c.

Slaughter-house &c., by diligent care have applied fresh once plowed under jury to the crop. obtained by comp with fresh stable pile with sod a co then can be applied astonishing results cabbages and pot

These are rarely amounts, but their tility to be had in in every town—b "hanker" for the ties piled up in the half a dozen straw quire—"What ur them?" We d them while the w boys stop work simply this:—

We break them or sledge, and the block and crush pound weight, w pole. They are one quarter to bones, alternating stable manure, a of inches of soil. at any time in the is pressing.

Usually, by the rotted, the parti and make a serv as permanent ma a garden soil for quarter inch lay value than the s does not appear whole is mixed fresh manure, a be sufficiently c plant food.

For two seas with bones coar alternate layers and kept damp, usually the bon and finger, and sing for needy ally spread aro hood or raked an important p results of lim will pay to emp stable manure Roof, in Weste

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TURAL.

N FARM.

which we are... is a fair aver-... cultivation of...

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in cultivation... of cropping... served its vir-

2, Barley; 3... 5, Wheat;... or oats; 7...

These are rarely to be obtained in large amounts, but there is another source of fertility to be had in greater or less quantities in every town—bones.

We break them coarsely with a heavy axe or sledge, and then lay them on a dishing-block and crush them finer with a twenty pound weight, working with a double spring pole.

Usually, by the time the manure is all rotted, the particles of bone crumble freely and make a serviceable, immediate, as well as permanent manure.

For two seasons I have tried experiments with bones coarsely crushed and placed in alternate layers with three inches of ashes and kept damp.

workmen are... machines and... Most of the

plows are inferior, being after the old style, with two small wheels to support the beam. Much of the plowing is done with oxen, usually three together, drawing the plow by rope traces that are attached to a padded board or iron that passes across the head above the eyes. But few yokes are seen.—Many of the fields are plowed twice every year. Some are plowed in August quite shallow, and again in the autumn much deeper, but in the spring are only harrowed. Weeds are seldom seen.

Mr. Leidecke has ten laborers, who are paid yearly, besides their plain victuals, from \$25 to \$50, according as they rank. The cattle are mostly of the Holland breed, and are moderately good. The sheep are healthy and well adapted for mutton, having an intermingling of Southdown blood. The horses are universally well formed, powerful and well kept. But the swine are not to be praised.

The Germans do not have so many insects to contend with as the Americans, but they also do not have such beautiful fruit. And in general, though one may well speak laudably of German field culture, science, general information and stability, he cannot praise the practical workmanship of the laborer, nor the beauty of the farm home.—*Prairie Farmer.*

MANURES.

Of the various manures to be obtained from town besides stable manure, nearly all are in a concentrated form and do best when piled with manure until well rotted. Spent hops are worth about double the same weight of stable manure, and composting with leaves or some milder fertilizers, and with soda, it makes an excellent application for beds in which to sow small and delicate seeds which cannot grow through even the least crust. Where leaf mould cannot be had, this is excellent for use as soil in hot-beds, &c.

Slaughter-house refuse, rendering refuse, &c., by diligent care in spreading them, we have applied fresh to the garden, and at once plowed under without any apparent injury to the crop. But the best results are obtained by composting it a few months with fresh stable manure and covering the pile with sod a couple of inches thick. It then can be applied evenly, and produces astonishing results—as well as monstrous cabbages and potatoes.

These are rarely to be obtained in large amounts, but there is another source of fertility to be had in greater or less quantities in every town—bones. I admit I have a "hankerin" for these, and I get such quantities piled up in the garden that sometimes half a dozen strangers in a day stop to enquire—'What under the sun do you do with them?' We don't often have time to tell them while the weeds are growing and 20 boys stop work to listen, but the way is simply this—

We break them coarsely with a heavy axe or sledge, and then lay them on a dishing-block and crush them finer with a twenty pound weight, working with a double spring pole. They are then put in thin layers of one quarter to one half inch of crushed bones, alternating with six inch layers of stable manure, and all covered with a couple of inches of soil. Of course this can be done at any time in the year when no other work is pressing.

Usually, by the time the manure is all rotted, the particles of bone crumble freely and make a serviceable, immediate, as well as permanent manure. In fact it "tones up" a garden soil for years. I estimate the one-quarter inch layer of bones as of far more value than the six inches of manure. If it does not appear sufficiently decomposed the whole is mixed about half and half with fresh manure, and it is very certain then to be sufficiently cooked to be good, available plant food.

For two seasons I have tried experiments with bones coarsely crushed and placed in alternate layers with three inches of ashes and kept damp. In eight or twelve weeks usually the bones crumble between thumb and finger, and make an excellent top-dressing for needy places in the garden, especially spread around cabbages and onions, and hoed or raked in. This has not yet become an important practice with us, but from the results of limited experiments, I think it will pay to employ it on a large scale when stable manure begins to grow scarce.—*J. B. Root, in Western Rural.*

THE ARRIVAL OF THREE PROFESSIONAL DRAINERS FROM ENGLAND.

We learn from the *Colonial Farmer* that the efforts of Richard Thompson, Esq., of St. John's, to procure professional drainers from England, have been successful. The *Colonist* thus describes the drainage operations on Mr. Thompson's farm of Manawagonish:—

"It is always a pleasure to witness farm work of any kind, done well and neatly, and it is a real gratification to see these Englishmen handle their tools so deftly and with such ease and skill. The ground through which the drain had been, and on which the workmen were engaged while we were present, had been dug, in some places, in order to get the bottom graded six feet six inches. The sides were beautifully sloped from sixteen inches wide at top to the width of a pipe with two inch bore. The drain is laid out as narrow as is possible to work in, the nearest way down the hill, and as straight as a gun barrel, if the conformation of the land admits of it.

As fast as the ditch is dug to the required depth, the pipes are laid in it, beginning at the lower end of the ditch, and laying upwards. The bottom spit of, say 18 inches, is loosened with a long, sharp-pointed spade and scooped out with a tool made for the purpose. When two or three rods of ditch are ready for the tiles, the foreman straddles the ditch, and with an implement for the purpose, picks up a tile and lays it in the bottom, turning it till the point fits snugly. As soon as a short string of tile is laid, some surface earth is thrown down to cover them, and should there be a little water in the ditch, the upper tile is plugged to keep the dirty water from entering. The digging of the drain is continued, and the tile laying goes on until one ditch is completed.

"A very handy implement is used for filling in the earth, made like a potato digger, but with larger and stronger tines. With this the earth is dragged into the ditch from both sides rapidly and easily.

SUMMER FALLOWING AND FALLOW CROPS.

Fallowing of land is as old as agriculture itself. The Israelites undoubtedly got their idea of allowing the land to lie fallow once in seven years from the ancient Egyptians, by whom they were enslaved. Their fallows, however, did not include the turning under of green crops; for, even if the idea had occurred to them, their implements of tillage would not have allowed that perfect inversion of the soil necessary to covering heavy growths of vegetation. It is only since the invention and subsequent improvement of the modern plough, that this has been rendered practicable, and with it the possibility of keeping the land shaded during a great portion of the fallow. Even now, the importance of keeping the land shaded is not as generally appreciated as it should be.

Whatever may be said of the importance of the application of barnyard manures and other fertilizers to keep up the strength of the land, it is undeniably true that, with the many large farms in the west, it is not feasible, from lack of quantity, if not other cause, to employ these manures to the exclusion of other and easier means of renovation.

It must be a question for the farmer to decide, if the land is to be kept up with manure altogether, or with manure supplemented by fallowing. Near cities where manure is plenty, or where a sufficient amount of stock is carried to furnish manure, we should advocate this plan, so far as it could be carried out. Unfortunately all cannot have their farms near cities; and all cannot or will not carry stock sufficient to keep up the fertility of their cultivated soil.

The most practicable plan, therefore, is summer-fallowing, either alone or in connection with manure. When manure is to be obtained in sufficient quantities, corn, &c., are undoubtedly the most economical crops that can be employed to clean the soil of weeds. By the constant working early in the season and the perfect shade given later, the soil is kept in the best possible condition at the least expense for producing other crops in the rotation, and at the same time, while clearing the soil from weeds, the farmer is getting ample pay for the labor bestowed.

In the summer-fallow proper, the land must lose a season. It must either rest entirely or else support only such crops as

will assist through decay in the nutriment of most valuable ones. To this the beginning should be made, if possible, in autumn by ploughing the soil thoroughly as soon as possible after the previous crop is taken off; thus letting the soil lie exposed to the action of air, water and frost. In the spring, sow to some crop that will germinate early in the season. Peas, inferior wheat, rye, or even chess, since the crop is not allowed to go to seed; anything that will cover the ground quickly. If the land is to be sown to winter wheat, the fallow crop must be ploughed under in season for seeding. At all events it must be turned in not later than the time of blossoming, or, if corn, at such times as will enable it to be properly covered. If the land is not to be used until spring, sow winter rye, to be pastured in the fall and turned under in the spring.

Thus, you will have given the land three or four plowings, and will have had worked into the soil two or three crops, and besides this, the soil will have been kept shaded except during the winter season, which will have done good work in breaking down and disintegrating the soil.

But while the soil is increasing in fertility by this means, it is only one of the means used. Repeated plowing mix all together, render the soil friable, and the fertile surface is left just as it should be to give sure and constant rewards to those whose sagacity prompts them to take advantage of the means which nature has placed before them. Such progressive farmers reap abundant harvests by the exercise of fact and judgment in their calling.—*Western Rural.*

THE DEMAND FOR OUR CROPS ABROAD.

It becomes an interesting question what will be the effect of our prospective heavy grain crops, and in this connection we must look at the condition of affairs abroad. A review of the harvest prospects in Europe gives a very favorable view of this matter. England is our great, and our only important customer for grain. She is likely to have a crop fully up to the average, and perhaps much larger. Hence her need will be less pressing than usual. The European wheat field on which she is accustomed to draw are also promising, and she will thus have a choice of several overflowing granaries. The inevitable result will be that the competition for the English market will be sharp, and the disadvantage of long rail and water carriage and of a debased currency will be ours. If we hold our own in exporting wheat and Indian corn to Great Britain, it will be only by selling at prices so low that the farmer will think his woes are increasing. Our production has been for some years fully equal to all the demands that Great Britain can make upon us. During the first six months of the present year more than sixty per cent. of the wheat flour also received was also from this country.

This was partially caused by the failure of some of the European crops. The case being now reversed, the competing crops being good, we are likely to be blessed with an abundance which we can neither consume nor sell except at a sacrifice.

What is bad for the farmer is good for the consumer. We shall have cheap food, and the result must be a cheapening of the general cost of living, leaving for use in other things a vast amount of money that would have been required for the necessities of life.

That the farmer's receipts for a heavy crop are larger than for a light one, in spite of the fluctuation of prices, is certainly true. The position of this country enables it to take a great advantage of the misfortunes of other countries dependent upon their exports of breadstuffs. It is a poor reliance for a regular income, and is likely to prove so this year. Nevertheless, the country will be richer, and the farmers will share in the prosperity, for a crop that far exceeds the probable wants of all countries that can think of drawing upon our granaries.—*Advertiser.*

ANOTHER INSECT ENEMY TO FARMERS APPEARS IN RUSSIA.

Advices from Odessa report that the crop in the neighborhood of Nicolaf would have been more than usually good, but for the calamity which had destroyed it; and that is the insects which devour the grain by sucking the tender milk which forms in the ears, and which, although of full size will yield absolutely nothing.

DRAINAGE.

Amongst the many operations for the permanent improvement of the land, increasing its products, and rendering it more healthy both to human beings and to cattle of all kinds, drainage stands foremost. The British Government is fully aware of this, and passed a law some years back which offers the loan of money for the purpose; to be repaid by easy instalments, secured by a rent-charge upon the land paid by the owner or owners, whether the estate be entailed or not; the owners being themselves indemnified by the tenants of the improved land by an addition to their rents, which no rational man will refuse to pay, who is aware of the benefits resulting from the operation. Strange to say, there still remain many millions of land in an undrained state in the United Kingdom, to the loss of produce and to the injury of the health and comfort of the resident tenants, whilst the nation itself suffers by having to pay for a large amount of agricultural produce, most of which might be raised at home but for the neglect of people in not availing themselves of the Government offer. In this case the English landowners are behind those of Ireland, where arterial or complete drainage has been effected over two counties, including rivers extending, with their tributaries a length of 400 miles, and relieving the catchment basins over an area of seven million acres. This was effected under the supervision of the agents employed by the Commissioners of Public Works of Ireland. Thus in a very few years 11,000 square miles, or nearly one-third of the entire area of that country was rendered capable of improvement, and a large extent at once brought under immediate cultivation, the expense of the operations being only £1,370,760, or an average of £4 2s. 6d. per acre, including the charge of building bridges, weirs, masonry, the purchase of mills for removal, and the water power of those that were allowed to remain. The case of the Castlenode and Strokestown district is worth stating. A large portion of it was so water-logged as to be considered worthless, and the inhabitants had held it rent-free for sixty years, by which they gained a title as "Proprietors-in-fee." So completely was this land drained that it has since let at £6 10s. per acre, and that part of the district round Longford, similarly water-logged, being completely drained, paid the whole expense the first year by the increase of the produce. The injury sustained by a single flood in an undrained country will illustrate the folly of not preparing an estate against such a catastrophe by draining. The late Mr. Pusey, referring to the drainage works of the rivers Wye and Derwent, stated that he had known one flood do more damage to the crops in the Valley of the Derwent and its tributaries than the whole cost expended on the works, and that during the rainfall of 1852 the water never rose to within 5ft. of the former level of a high flood.

A great discovery was made by Mr. Parkes, who has probably gone deeper into the study of the philosophy of draining than any other person. He states that even in a clay soil a four-foot drain is more efficient than one of two feet. This he illustrated by the following experiment:—On a piece of pasture on the Duke of Wellington's estate at Strathfieldsaye he caused a drain to be dug four feet deep; at the bottom he laid tiles of one inch bore. On these was rammed hard clay two feet deep, and on the clay was laid another row of inch tiles, and the trench was filled up to the surface. After a heavy rain the lower, or four-foot, tiles not only commenced running first, but the flow of water was much greater than from the upper tier, and continued longer. But this was not all. Another drain of four feet was opened parallel with the other, at 24 feet distance, and served in the same way. It then appeared that the first drain had drawn off the water to the extent of 24 feet, for the second drain had a very inferior flow from it. Many other experiments are recorded in Mr. Parkes' work on "The Philosophy of Drainage." "Experience," he says, "has proved that a soil surcharged with water cannot perfect crops; that excess of water is an impediment to the due mechanical division of the active soil; that it diminishes the fertilizing power of any species of manure; that it lowers the proper temperature of the mass of the bed; that it precludes the free entrance and exchange of the atmospheric air; that it prevents the free descent of rain through the soil, and its timely evacuation."

It is very evident that a large portion of the cultivable land of England is still so damaged by constantly wet subsoil, as well as by liability to floods, as materially to interfere with its timely and effective cultivation, by which the annual produce is reduced to little more—or less—than half the consumption, thus necessitating an importation of different kinds of grain and other produce to the value, in some seasons of more than fifty millions sterling a year, upwards of thirty millions of which is for wheat and wheat flour. That a proportion of this excess could be grown on the same breadth of land as is now occupied with cereal food, is admitted by almost every person acquainted with the subject.

Improvement of Crops.

Major Hallett, of Bristol, at a late meeting of the Midland Farmer's Club, made some very interesting remarks upon the culture and improvement of wheat. The major has given a great deal of attention to this subject, and is the very best of authority. It has been demonstrated beyond a doubt that there is scarcely any limit to the improvement by a selection in plants as well as in animals, and farmers cannot be too particular in their choice of seed. Always select the best, no matter what the trouble is, the crop will pay.

Major Hallett says:—

"Close observation showed that in the cereals, as throughout nature, no two plants or grains are precisely alike in productive power, and hence that of any two or greater number of grains or plants, one is always superior to all the others, although that superiority can be discovered only by actual trial. The superiority may consist in various particular characteristics. The following were the chief points of his standard in order of their importance, but all have to be duly considered: 1, hardihood of constitution; 2, trueness of type; 3, quality of sample; 4, productiveness; 5, power of tillering; 6, stiffness and toughness; 7, earliness of ripening. The plan of selection which he pursued was as follows:—A grain produced a plant consisting of many ears. He planted the grains from these ears in such a manner that each ear occupied a row by itself, each of its grains occupying a hole in this row; and the holes being twelve inches apart every way. At harvest, after the most careful study and comparison of the plants from all these grains, he selected the finest one, which he accepted as a proof that its parent grain was the best of all, under the peculiar circumstances of that season. This process was repeated annually, starting every year with the proved best grain, although the verification of this superiority was not obtained until the following harvest.

"After giving instances of the results due to the influence of selection alone, by which the length of the ears had been doubled, their contents nearly trebled, and the tillering power of the seed increased five-fold. Major Hallett next proceeded to consider what might be effected by the combination of thin seeding with selection. Taking the seed wheat sown by a usual mode of two bushels per acre, one and a-half million of grain per acre (speaking roughly) were put into the ground. In ordinary crops the number of ears produced per acre being taken as about one million, and the crops as 34 bushels, they had 700,000 grains to the bushel, 23,800,000 grains per acre, or an average per ear of only 23 to 24 grains; and if more than one million ears per acre were claimed, it must be at the expense of their contents. Five pints of wheat per acre planted in September, 12 in. by 12 in., gave 1,001,880 ears per acre, or 67,760 ears in excess of those produced on the other side of the hedge from six pecks, or more than twenty-one times the seed. Again, five pints planted 12 in. by 12 in., October 17, gave 958,320 ears per acre; and planted similarly October 4, 966,792 per acre; while one bushel planted October 15, gave only 812,160. Two plants of 24 ears each gave 1,911, and 1,878 grains, or seventy-nine per ear. Twenty ears per foot, at 48 grains only to the ear, would produce eleven quarts per acre. In reference to effects of his system, Major Hallett directs attention to the effect upon the crop of the more increased size of the grain produced. A bushel of pedigree wheat produced from

single grains, planted 12 in. by 12 in., contained about 460,000 grains, while a bushel of ordinary wheat contained 700,000 grains and upwards. Therefore, in two crops, consisting of precisely the same number of grains, the crop from the thin seeding would be upwards of seventy bushels against forty-six bushels, or nine quarters against six quarters per acre."—*Farm Journal*.

RYE CULTURE.

The culture and production of rye is reported in all the States and Territories except Arizona, Dakota and Wyoming, in the last census returns. Statistics would indicate that the crop was one of no inconsiderable importance, and ought to receive greater encouragement and attention generally. Rye ranks next to wheat for bread, and is superior to low grades of wheat oftentimes

for and putting in of the crop than would warrant a fair crop of either corn or wheat. Very seldom is anything more done than mere plowing, and that not of the most careful kind, as preparatory for the seed; and after broadcasting, that it is harrowed over, allowing the harrow to "hit" the whole. If very nice work is made, the harrow is allowed to "lap" a little. But although rye will accommodate itself to a variety of circumstances, it well repays generous culture and fertilizing.

Plowing should be as thoroughly done as for any other crop. If the ground is a fallow, two good plowings will tell on the crop, if followed by sufficient harrowing to fine the surface for a good seed-bed. If the soil is poor and hungry, some good fertilizer should be applied; and here allow me to answer an inquiry some weeks old concerning a fertilizer for rye. If good stall or

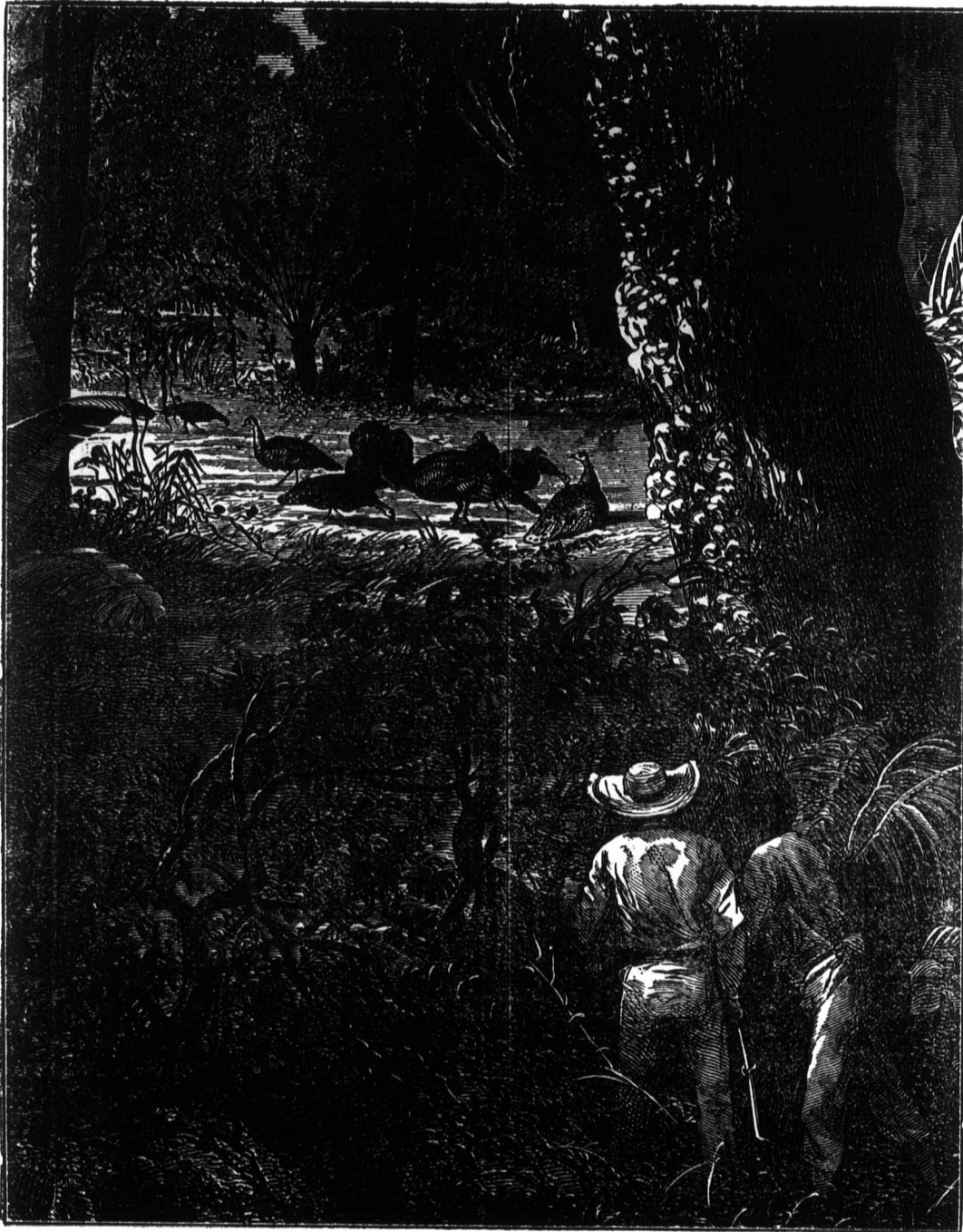
sonable prices, no one need feel afraid to use it after composting with earthy matter. If one has coarse littery or straw yard manure, which it is desirable to reduce in a short time, compost it three or four weeks with this fish refuse and muck or earth, and by one overhauling it will be pretty effectually broken down. An application of from one-half to one ton of fish scrap composted with muck, &c., makes sufficient manure for one acre. — *W. H. White, in Country Gent.*

Wild Turkeys.

The accompanying illustration represents a flock of wild turkeys in South America. With us, in this part of Canada, the wild turkey is now nearly exterminated. As the woods become thinner, and population increases, their chances of life are diminished. They must soon be only known to us in history as the things that were. We, like other green Englishmen, came here prepared with rifle, shot gun, bowie-knife, pistols, &c., &c., expecting to find lots of game. We carried our gun on our shoulder and dirk by our side when we left the steamboat at Hamilton thirty-four years ago. We walked to Ancaster, Brantford, Mt. Pleasant, Woodstock, Galt, Guelph, Blanchard, Gooderich, then to Col. Talbot's, in Elgin, and finally landed in Middlesex. Of course, boy like, we would shoot at any wild bird or animal we could see, and they were very few. We shot lots of woodpeckers of various kinds; they were then plentiful, and the only kind of bird that was. Now we cannot see one to twenty to be found then. We expected to have found rattlesnakes, large, venomous, charming and dangerous, but have never yet seen one.

AN ENGLISH PRIZE FARM.

Mr. Checkley's farm occupies about a square mile of land between the Ridgmount and Midlington stations, on the Bedford and Bletchley line, by which it is divided. It lies on the dark colored Oxford clay, here forming a ridge or escarpment, on the height of which the substantial and somewhat lofty farmhouse is situated, overlooking an admirable landscape. About two-fifths of the land are in permanent pasture. A good part of the arable land was broken out of this pasture 20 or more years ago. Its present tenant has, we understand, lived all his life upon the farm, and certainly its crops, and its herd and flock, the result of his management—for they are all home-bred—do great credit to his judgment and his skill. There are 2 sets of farm buildings—one of brick and wood and slate and thatch, including barn and stabling, and several yards, and large accommodation for cattle; the other, newer and more systematically planned, with yards and sheds and central double-stalled cow-house. There are here also some excellent cottages for the herdsman and the shepherd. A herd of 45 cows were being milked as we walked round the building, having come into their stalls for the purpose, and receiving at the time a meal of chaff and cake and bean and maize meal. They are a capital lot of large-framed, unpedigreed short-horn cows, exhibiting quality as well as size. They are kept for a butter dairy. We saw also an admirable lot of calves, a first-rate set of yearlings, and a still more admirable lot of (some 20 or 30) 2-year old heifers in the fields. Only the cow calves are kept, the others being sold early. A flock of long-



in quality, for bread and domestic use. Although not so generally used by families for the table as wheat, it would prove more economical and equally satisfactory if a portion of this were substituted in our everyday use for the common every-day bread.

A light grey soil, of sand or gravel, produces the best quality of rye—that making the whitest and best flour for bread, although we obtain a less number of bushels from an acre than from heavier, stronger soils. In my own experience I have obtained twenty to twenty-five bushels per acre on these light soils, where a previous crop was grown, and the soil suitably fertilized, and a light application of wood ashes or plaster was given in the spring after the ground was settled. So far as I have observed, less pains are taken in the prepara-

farm manure is wanting, a good substitute (and I do not know but equally as good as stable manure for the crop) is a good fish compost; for some soils it is equally as efficient as anything that can be had. Take fish scrap, pomace or guano, and compost it with loam, turf, sods or good seasoned muck, laying it up in alternate layers, using five or six parts of earth to one of fish, covering all in well with earth. Let it ferment till well heated through, then overhaul, and let lie till well warmed up again; when it can be applied broadcast and well harrowed into the surface before applying the seed. This will supply very much of the elements needed by the crop, and leave the ground, when the crop is off, in a better condition for future crops. Whenever fish or any of this refuse from oil factories may be had at rea-

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wooled sheep (about 240 ewes) are in the fields. A number of pigs are fattening in the sties (the skim milk being available for them), and a rare lot of poultry of all kinds spread themselves over the home pasture.

What is there to feed all this stock? Not much that we could see upon the farm just now. The grass fields are the only home resource, we believe, at present, and they are very bare—there are no cabbages, no vetches, no second cut of clover, and everything else is eaten very bare; but, said our guide, "our master don't make hisself uneasy about that—they've got water laid on in every field, and what little grass there is is as good as hay." Add to this the artificial feeding twice a day, and the cows are taken care of. And for the sheep, though there is a large extent of clover eaten barely down just now, some of the fields are unoccupied, and getting rapidly freshened up with last week's rains; and certainly there is no sign anywhere of any want of prosperous well-doing in any of the stock.

The land is laid out in large fields, from 20 to 40 acres apiece, and the grain crops are magnificent. We have nowhere seen better or more even wheat, nor barley anywhere so good; the oat crop, too, is first rate. And these great areas—40 acres at a glance—are very striking pictures of what good cultivation can effect; for the soil is not naturally very tractable or fertile. It has been drained; and a handsome tankard on the side-board testifies to the fact that it was drained at the tenant's expense more than 20 years ago. Considerable purchases of artificial manure are made for the mangels, kohl rabi, swedes and turnips, of which we saw one piece of 40 acres in various stages of growth. There is also a large area in bare fallow, which had been worked by hired steam power. And thus good tillage, artificial manuring, and much enrichment of the home made manure by large quantities of cake and meal bought for the dairy stock, together produce the admirable results which this year's crops exhibit. Of the 16 farm horses by which the land is worked, we saw three powerful Suffolks, with foals by their sides, in the field. The four course system for the most part rules the cultivation: (1), wheat; (2), fallow, or fallow crops; (3), barley or oats; and (4), clover—being the succession—beans, for which the land is well suited, being taken occasionally in the last quarter; there are no beans this year, however. We saw about 170 acres of wheat, barley and oats, 90 acres of fallow and fallow crops (more than half bare fallow) and some 70 acres of clover. An immense produce of grain off 160 to 170 acres, such one-year-old mutton as a flock of 240 heavy long-wooled ewes can yield, a quantity of pork and bacon, and the butter of 40 or 50 cows;—this, with some store stock and some beef, of which, however, we did not obtain detailed information, is the produce of a square mile of generally stiff clay soil upon the duke's estate; and for this, after long years of farm management—persistent, excellent, unpretentious, from boyhood upwards—the tenant of a quiet, life-long home awakes to find himself the foremost farmer of the five counties which this year's district of the Society includes.—*Agricultural Gazette.*

CULTIVATION OF THE SUGAR BEET.

From "Beet-root Sugar and cultivation of the Beet," by E. B. Grant, Boston, 1867, I extract an account of the recent Chatsworth, Ill., experiment. In 1863-64 the brothers Gennert, of N. Y., conceived the idea of manufacturing beet-sugar. Mr. Thomas Gennert visited Europe for the purpose of studying the methods there employed. Upon his return the firm selected the prairie lands in the town of Chatsworth, Ill., purchased twenty-three hundred acres, erected buildings, and commenced the cultivation of beets. In the process of time they gathered their crop, which, owing to the drouth, and also to the unfavorable method of planting, yielded only ten to twelve tons to the acre. The beets were of excellent saccharine properties, containing two and a half per cent. of sugar. The heavy outlay required exhausted their means; or, to use their own words:—We started on too large a scale for

our purse, which gave but too soon, before the machinery required for the successful working was finished; but experience has shown us sufficiently that sugar enough is contained in the beets and that it can be got out. With our imperfect, or rather incomplete, machinery we extracted 7 per cent.; with complete machinery those beets would average 9 per cent."

At Fond du Lac, Wis., Mr. Otto, a practical German sugar maker, last year planted 4 acres of beets and fitted up cheap, simple apparatus for manufacturing. The crop turned out well, proved rich in saccharine matter, yielding a good quality of sugar. This year—1870-80 acres were planted, and, notwithstanding the unfavorable season the peculiar fitness of the soil secured a good crop of beets. More machinery was obtained, and the manufacture is now being successfully prosecuted; about 1000 pounds of a good quality of coffee sugar being turned out every 24 hours, with improving results as the work progresses. The crop of beets is sufficient to last the works 4 1/2

months, which will give an aggregate of 125,000 pounds of sugar at least. The process of manufacturing is similar to that followed at Chatsworth, Ill. Thus, it seems that one beet root sugar factory at least is established on a firm basis in the United States.—*Wisconsin Agricultural Report.*

TOP-DRESSING GRASS LANDS.

The success or failure of farming operations depends largely upon the mode and time of applying manure. No matter how applied, manure never fails to benefit the soil, and rarely fails to benefit the growing crop. But it may be used so that it will do comparatively little good either to soil or crop. In this section most of the rotten manure from barnyards in the fall is used as top-dressing on wheat. The "patchy" appearance of top-dressed wheat, however, results from an attempt to make a small quantity of manure produce a crop on poor soil. To have the best effect on wheat, ma-

nure should be applied on the surface some time before sowing, and thoroughly incorporated with the surface soil by frequent harrowing. But the best farmers in this section apply manure as a top-dressing for grass lands and young clover. To produce its best effect, clover should have as large a growth as possible. In a large growth the long top roots strike down deeper, and not only loosen the sub-soil, but bring up fertilizing mineral elements that have leached down during years of shallow culture. Even if the clover be cut for hay, the extra growth of roots leaves the land much richer than if no manure were used, and the entire crop plowed under. A good plan is to apply all the finer and well-rotted portions of the manure to the young clover of this year's seeding. This will be washed down among the roots by winter snows and spring rains, and give the clover an early and vigorous start

this, even if the field is to be plowed next summer. Gypsum (or plaster) should always be sown on surface manured land. It is a specific manure for clover, and though not always uniformly beneficial, generally does enough good to warrant the small expense of applying it.—*W. J. F., in N. Y. Tribune.*

MOUNTING FERNS.

By taking a little trouble, pretty pictures may often be made out of many Fern fronds, considered useless in the greenhouse, or, at all events, by the use of a few which may be cut off, and never missed. After the ferns have been removed, they should be dried between sheets of botanical drying paper; even old newspapers or blotting paper will answer the purpose.

Presuming that a collection of dried ferns is at hand, a sheet of the cardboard should be procured; some like white cardboard; I prefer it slightly tinted, but that is quite a matter of taste. The ferns should then be laid lightly on it, and arranged in the form of a bouquet, or in whatever shape desired. The position of each fern should be indicated before it is glued down, as, after that, it could not be well removed without marking the cardboard. Supposing the fronds to have been arranged according to taste, they should be lifted up again, and their backs should be glued with a fine brush, so as to make them stick to the paper. Should any gold or silver varieties be amongst those selected, they should be placed so as to show the color of the under sides of the fronds.

The light colored moss, which is to be found growing on old trunks of trees, if interspersed through the ferns, tends to give the arrangement a light and elegant appearance. A wreath of ferns mounted in this way, has an effective appearance, if placed round or under a handsomely illuminated text. The fronds selected for mounting in this way should be those of small and light looking varieties, as large and heavy growing fronds would make a small arrangement of this description look heavy. In this way a capital book of reference on ferns might be made up, each variety being mounted on a sheet of drawing paper or cardboard, and the name of the variety, height of growth, native country, etc., written under the frond. It will be found astonishing how very quickly a collection of this kind can be got up, as single fronds are easily obtained.—*Ex.*

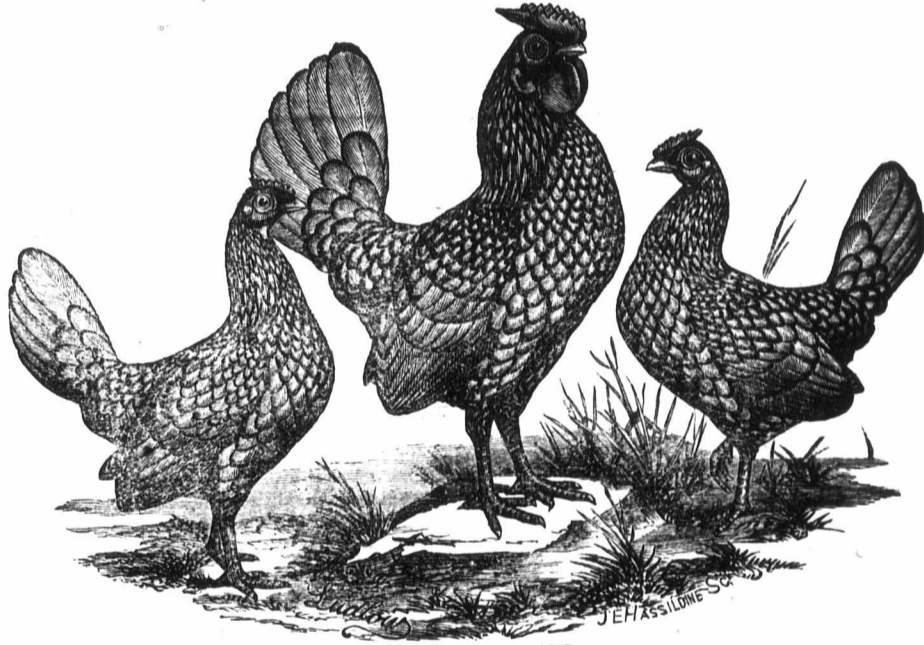
Game.

On our arrival in this country in 1840, we shot a few pheasants, as they are called, but they are only a species of grouse; a few quail were also found, and in some localities ducks were plentiful. On our first tour with gun, pistol and bowie-knife, we never saw or heard a bear, wolf, coon or wild cat, and, what is more, from that day to this, 34 years, 32 of which have been spent in the back woods, we never yet saw one of the above named animals in the woods, although we have spent days in quest of them. We were fortunate enough to shoot a wild turkey, and hit two deer. We broke the leg of one, and an Indian followed it and got it; the other we shot in the head—it took to the river and was followed and captured. The scarcity of game of every kind is, we think, to be regretted. The greatest enemy we have to the feathered tribe, excepting man and the mother, is the fox (see cut.) Let us unite and wage a war of extermination against him. We pay a heavy tax for his support on the farm by the loss of lambs, geese, ducks and poultry of all kinds, and still a greater tax by the loss of birds that he destroys. The reward of a small sum of money per head for every fox and skunk killed in each county, would be well laid out. Who will move in this matter.

The foot and mouth disease has made its appearance amongst some cattle about Arith and Grangemouth, Scotland.



REYNARD.



SEBRIGHT BANTAMS.

Notes of the Garden and Farm.

ORIGINAL AND SELECTED.

BUSH FIRES.

It is time something was done to prevent those fires that are from year to year sweeping over the country, and destroying an immense amount of property. The forests are fast disappearing before the axe of the lumberer, and timber, that a few years ago was thought to be the greatest obstacle to the colonization of the country, will soon, in all likelihood, be a scarce and costly article. But, as if the cutting down the woods and clearing the land were doing the work too slowly, the fire, lighted by the carelessness of some one, consumes whole forests in its destructive march. A little spark in the beginning, if discovered in some dry branches, or rails, or trees, might easily be extinguished at once, but when once started the terrific fire sweeps on with the rapidity of lightning, till the whole trail of country is one vast wilderness. We are now again told of woods on fire—crops, fences and houses consumed. The forests of a hundred years growth, the property of farmers accumulated by years of hard toil, all feeding the devouring element, while by day and night strong men are fighting against it with all the energy of despair.

This is no slight matter. It is of the highest importance to the country at large, and as such it should engage the most serious attention of the Government and Legislature. Affairs of far less importance occupy them while measures for the preservation of the most valuable property of individuals and the nation are not thought of. If our rulers cannot devise some means for checking the repeated recurrences of the calamity, then let them take a lesson from other countries. We would direct their attention to the care of forest in Germany as one instance of what might be done here. The forest administration there is well known for its efficiency. There is a well-organized body of officers, to whom the care of the forests is allotted in assigned districts. They are presided over by a forest director, and as their responsibilities are great they receive fair remuneration for their services. Such a body of foresters in Canada would be a great means of preserving the forests; and, though they would be an additional expense to the country, it would be a mere bagatelle compared to the property they would be the means of saving from destruction. This is a question of importance to all, and to none more so than the farmers. Their property, their homes, their crops and stock are in the first to be destroyed, and the very lives of their families are in peril.

FARM LABORERS FOR CANADA.

"Five hundred laborers belonging to the English Agricultural Union left Liverpool for Canada the last week in August. This is one of the results of the farmers' lock-out." The sending laborers out to Canada too late in the season is a very injudicious measure. They cannot from the time of their arrival make the necessary provision for winter when there is little employment. Emigrants should come early in the season, that they may have half the year's employment, and so have the means requisite for their comfort and subsistence during the months when heavy expenses are unavoidable, and there is less opportunity for earning. Connected with this subject of emigration, another important question arises.—May the farmer expect a fair remuneration for the wages paid to hired laborers? There are differences of opinion on this subject. We know that with additional labor there will be greater produce, but is it true as urged by some, that the additional produce will not more than pay for the labor that produces it, if it will even pay that? W. J. F., a writer in the *Country Gentleman*, puts the case very strongly in favor of hired help on the farm. He says, "If farmers have one or two hundred acres left unproductive, while the farmer spends all his manure on a few acres, the farm, as a whole, may not pay expenses. The remedy is plain—employ more labor and thus make a larger capital productive." On almost any hundred acre farm two hands besides the farmer are absolutely needed, and can be paid easier than one. Two men on fifty acres of arable land will produce more than one man on one hundred acres, and three men on fifty

acres will equal two on a hundred." Our own opinion coincides pretty much with that of W. J. F. Labor, if judiciously expended on a farm, is a profitable investment. Our soil is capable of producing a much greater increase than it does, and for all the farm raises there are convenient markets and remunerative prices, and for meat and wool there is a fair prospect of higher prices in the future. But heavier crops, and better beef and mutton are only to be had by bestowing better labor on the soil. I have known 3,000 days work to be expended annually on a farm of 240 acres in the old country, and the farmer to live well and save money from the profits. With all the due allowance for the different rate of wages on one hand, and of rent and taxes on the other, and adding that the farmer himself did no labor, I must come to the conclusion that hired labor on a farm, judiciously expended, will pay.

ACCESS TO GOOD MARKETS NECESSARY FOR AGRICULTURAL IMPROVEMENT.

The *Telegraph* (St. John, N. B.) in advocating the proposed Baie Verte Canal, thus speaks of the injurious results of a want of ready and cheap communication with good markets for farm produce:—"While the Bay of Fundy territory has prospered and become wealthy and prosperous, the Gulf territory, with a far better soil and equal resources in all other respects, has, except in a few favored spots, retrograded. Its noble harbors are frequented by no fleets—no settlers are ever heard in its vast solitudes. Yet pioneers who have visited it within a few years say that it is an excellent timber region, and might be settled with advantage. It is admitted to have the best land and the best timber on that Island. The territory on the Bay Chaleur is another example of what isolation can do towards retarding a fair and fertile region. Though it has been settled upwards of 200 years, the whole territory on both sides of the Bay does not contain a population of more than 35,000, yet it has incomparable fisheries, a most fertile soil, splendid timber, a good climate, in fact everything except communication with proper markets; and without that, which the Baie Verte Canal alone can give, it must forever be in the background.

THE BARLEY CROP.

From a late circular issued by one of the foremost houses in Oswego, Messrs. Irwin & Sloan, we make the following extracts. The information conveyed by them may be looked upon as substantially accurate, as their means of obtaining intelligence from all parts of the Dominion are very extensive:—"That the average Western (States) barley does not vary materially from last year, the yield being somewhat smaller, and the grain, as a rule, of a brighter color, but not quite so heavy; the yield in this State, fully twenty five per cent. larger than last season, and of much handsomer quality; and the production in Canada not less than forty per cent. larger than last year, and of highly satisfactory quality. Considering carefully the various opinions expressed by our Canadian correspondents, we judge that 80c. to 85c. will be the range within which their markets will be likely to open. If this view should prove to be correct, we may look for first-class sales here (Oswego) to be made at \$1.20. It is our judgment, however, that these estimates are as likely to prove unjustified as the actual price as otherwise, and we hardly feel justified, therefore, in undertaking predictions so long before deliveries and actual transactions are likely to be made."

PLANTING TREES.

The subject of planting trees is one that now engages the attention, not only of agriculturists, but also of legislatures and statesmen in many parts of Europe. We read of extensive tracts of country being planted in Scotland, narrow as are its limits, and from several parts of the continent we have the same intelligence. As a preventative from malaria, in some places, trees are as profitable a product as the soil can yield; in others as a shade for crops and cattle from the excess of heat and cold, and to reclaim barren wastes, as in Holland, trees are planted by the thousands and tens of thousands. Beside the sea shore, in many instances, there are large tracts covered with loose sand, and quite useless to the agriculturist. One such region I knew myself where the sand was every year encroaching farther and deeper over the arable soil. There it was blown in by the west wind swept over the great Atlantic, and no means

then tried could arrest its devastating progress. On such waste tracts the work of planting trees is now being prosecuted with every prospect of favorable results. In Holland especially this is done. They first plant a marine bush which binds the sand, and then when the soil is by this means prepared, the common aspen or pine is planted. These were sand covered plains, but there are many waste corners and other places that might be planted with trees with a certainty of a large profit being raised in a few years. Young trees for planting are easily procured. Young trees from the outskirts of the woods, if taken up and planted carefully, seldom fail. In almost any place those who will can get them, and often where least expected. I have now young trees growing luxuriantly that I pulled up seedlings in the sand of the river where the seed had fallen, and lain in the water till in the season, the river needing a narrow channel, the sand became dry enough for the seed to grow.

ROOTS FOR STOCK FEEDING.

In Brittany the parsnip is becoming the favorite root for stock feed, and its culture is extending. In the Channel Islands this root forms a large portion of the fodder of the Jersey, Guernsey and Alderney cows, and much of their value as rich milkers is undoubtedly due to the use of this root for a long series of years. It is well known to physiologists, says the *N. Y. Tribune*, how great an effect upon the condition of a breed of animals is caused by a long period of careful feeding, and this is a conspicuous instance of it. This root in many parts of France is substituted for oats as feed for horses, 16 pounds a day being given with the best effect. For pigs it is also largely used, nine pounds of cooked roots being fed four times a day. One great advantage of this root is its hardness; the supply for spring may be left in the ground all winter, and is in the best condition to harvest at any time when needed.

THE ASPARAGUS BEETLE.

Every Spring I have to fight this beautiful little beetle in order to save my asparagus. The mature insect hides away in the ground, remaining there during the Winter, making its appearance early enough in the Spring to stick a few eggs to the first strong shoots that come through the rank, rich soil. Fowls will pick up many of the beetles if permitted to do so. Still many will escape, and the black, ugly-looking larva can usually be found upon the stalk a little later in the season. For several years I have prevented this insect from doing any considerable damage by the free use of lime scattered over the plants when wet with dew. This is easily applied and effectual, although, if one's neighbors do not join in the crusade, a new stock may visit you in Spring, and the successive broods remain all Summer if not destroyed.—*Rural New Yorker*.

HEN MANURE.

Hen manure is best used in compost with muck that is decomposed, say one part hen manure to two or three of muck. Never mix it till it is time to use it, and cover it soon after you drop it. It is a safe precaution to put a little hoe full of dirt between the hen manure and the seed corn, and drop it no faster than you cover it up. If in composting the muck contains much moisture, it will cause fermentation and set the ammonia free, by the development of the heat. A bushel of good hen manure has been known to produce ten tons of beet. Always save every ounce of hen manure. It is worth about as much as guano if it is properly saved and husbanded; that is, kept dry till it is to be used. It will benefit the corn crop to an extent almost equal in value to all the corn the hens will eat.—*Massachusetts Ploughman*.

THE HORSE FOR THE FARM.

In an article in the *New York Times*, Alexander Hyde says:—"The horse is a noble animal, and an indispensable adjunct to the farm, but a trotting horse, one of the 240 kind, in no sense belongs to the farm. No farmer can afford either to tend or use trotting horses, and when it is pretended that the animals it favors the breeding of superior animals it is all fudge. What the farmer wants, and what fairs should give premiums for, is a good family carriage or farm horse, worth \$200 or \$300; one that can draw a plow all day, and eat and sleep well at night; that can move on the road at the rate of five or six miles an hour for four or five consecutive hours without excessive fatigue. Speed is not the great criterion of a good horse, as the large premiums offered would seem to indicate. Neither the owner nor the spectator gains anything by this forced speed. It is a mere momentary spurt, and for its production an amount of training is required which no farmer can afford.

THE RED SPIDER ON PLANTS.

In hot parts the red spider is very troublesome to box edging, and indeed, other plants growing in the open air. Few have any idea of the enormous increase of the red spider in gardens, and the great amount of injury done by it. Thousands of plants set out in spring, dwindle or die outright at this season, and the loss is set down to many causes but the right one. The leaves are first dotted with yellow spots, which grow larger while the green grows smaller, and at last die away altogether. If they are taken in time the insects will not increase much; an occasional examination will soon show their existence in occasional instances, and these may be destroyed by rubbing the finger under the leaves; but when it becomes numerous, the syringe must be used to throw water slightly impregnated with coal oil, in and about the leaves. Just enough oil to give an odor to the water will do. There is danger that an overdose will injure many leaves, but it can do no more injury than the red spider will, and if you destroy the insect with the leaves, a new crop of leaves will come out, which will be clear of all encumbrance. It is worth a little unpleasant feeling to get rid of such mortgages on your capital stock. Not only flowers but evergreens are very liable to this red spider pest, and particularly the evergreen tree box, all of which must be treated in the same way. The water must, of course, be drawn up by the syringe from near the surface, as the oil will only float on the surface of the water. In this way there will be enough drawn up with each syringe-full to serve the desired purpose.—*Gardener's Monthly*.

A GREAT PLOWMAN.

The *Agricultural Gazette*, London, says.—On Saturday last, William Allan, one of the most noted and successful plowmen in Scotland, died suddenly at the Home Farm, Merryton, near Hamilton. For about twenty-five years he had been in the service of Mr. Lawrence Drew, and till Thursday was in ordinarily good health. He was then seized with inflammation, from which he died on Saturday. Allan was well known over Scotland, and especially in Lanarkshire, as a plowman, whom latterly none could excel. In 113 plowing matches in which he had been engaged, he carried off thirteen prizes in succession, and among the trophies gained at matches, most of which were open to all Scotland, he could boast of twenty-one medals, seven plows, a watch, and a great number of money prizes. He was a faithful and obliging servant to Mr. Drew, by whom he was much esteemed. He has died at the age of forty-five, leaving a widow and a family of seven children.

PARASITE OF THE POTATO BEETLE.

A correspondent of the *Hornesville Times* says:—"It may not be generally known that the Colorado potato bug has found its parasite, or a parasite has found the potato bug, if you prefer it that way. The parasite is oval shaped, about the length of the cucumber bug, and is marked on the back, from which it gets its name, 'the ten spot bug.' They have appeared in large numbers within the past few days, and are doing good service in destroying the eggs of the much-to-be-dreaded bug. I mention this so that those not personally acquainted with the Colorado bug, which is striped, may not, in destroying them, include this little benefactor; for I doubt not it will be to the potato bug what the ichneumon fly was to the weevil."

PRESERVING LABELS.

Thoroughly soak the pieces of wood of which they are made, in a strong solution of sulphate of iron; then lay them, after they are dry, in lime water. This causes the formation of sulphate of lime (a very insoluble salt) in the wood, and the rapid destruction of the labels by the weather is thus prevented. Bast, mats, twine and other substances used in tying or covering up trees and plants, when treated in the same manner, are similarly preserved. At a recent meeting of a horticultural society in Berlin, wooden labels thus treated were shown, which had been constantly exposed to the weather during two years without having been affected thereby.—*London Garden*.

A correspondent writes to the *Scientific American* that the worst toothache, or neuralgia coming from the teeth, may be speedily and delightfully ended by the application of a bit of clean cotton saturated in a strong solution of ammonia to the defective tooth. Sometimes the late sufferer is prompted to momentary nervous laughter by his application, but the pain has disappeared.



"Selection in we condense lect:—

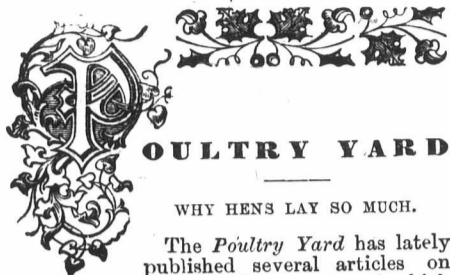
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POULTRY YARD

WHY HENS LAY SO MUCH.

The Poultry Yard has lately published several articles on "Selection in Breeding," from one of which we condense the following on the above subject:

In their natural state all birds lay a limited number of eggs, usually just as many as the hen can entirely cover during incubation. Those birds that rear more than one brood during the year, being no more liable to accidents than single brooded birds, rear the most young, consequently this variety predominate. Now where the jungle fowl was brought into domestication, in addition to its wild habits of laying fifteen eggs and then sitting, it is made to increase the number of eggs beyond fifteen by taking advantage of its natural power of provision for accidents, by removing the eggs as fast as laid, leaving enough in the nest to prevent its abandonment. The hen is naturally forced to lay a few additional eggs to supply the apparent deficiency in the number usual when the incubation is commenced. Under domestication the robbery of hens nests is carried on regularly and constantly, and the protection of eggs is stimulated at a great rate.

This is assisted by the abundant supply of food at all seasons. Food is plenty with wild fowls only during the breeding season, but man, by supplying plenty during winter, makes spring and summer extend through the whole year. This induces a habit of continuous laying that becomes hereditary. This work of breeding strains of fowls to be great layers by gathering their eggs daily was not performed with any conscious purpose. The keepers took the eggs because they were wanted, and carried on this practice without knowing or caring that the habits of the birds would become permanently changed thereby. This habit is perpetuated unconsciously by most people who keep fowls for use. The "guide wife," when setting a hen, always selects the eggs from hens that are good layers. "Old Brownie" is a good layer, I like the breed." So old Brownie's eggs are saved for setting. The keeper, by thus unconsciously selecting the eggs for setting, goes on improving his stock in this quality from year to year.

All these causes have been in operation for thousands of years, for the change from thirty to fifty eggs per annum to five times that amount was not accomplished in a single one hundred years.

The writer thinks that the reason why geese and ducks do not lay so continuously or so abundantly as hens, is because they were mere migratory fowls, and their breeding season is more limited than that of the jungle fowl, which is a constant resident. In the southern regions where they rested the season is short, and what was done was done quickly.

MR. MECHI ON POULTRY.

This eminent English agriculturist has the following to say about poultry: "No one item on the farm pays so well as a good stock of poultry properly managed. With them everything is turned to account. Not a kernel, wild seed or insect escapes their scrutinizing eyes. Their industrious claws are ever at work, uncovering ready for appropriation, every hidden but consumable substance. Fowls must have free access to chalk or lime to the shells of their eggs, and grit or gravel to grind the food in their gizzards. They luxuriate on grass or clover, which are a necessity for them. In winter they like mangold or swedes. They must have access to plenty of pure water. The quality of the eggs depends upon the quality of the food.

They, like ourselves, like shade in summer, and warm sheltered corners in winter. They must have some access to shelter in wet weather. Fowls will not long be healthy on the same ground or yard—the earth gets tainted. Therefore, to prevent disease, lime and salt your yards and their usual pasture once a year, say in autumn, when the rains will wash it well in and sweeten the surface.

Broods of chickens never do better with us than on the grassy brows of patches abutting upon the growing crops, either of corn or pulse, into which they run either for insects or for shelter. The roof of the coop should be watertight, and the coop should often be removed, having only the natural ground for the floor. The ground soon gets tainted unless you remove the coop.

You can hardly make some people good managers of poultry if they lack observation and judgment. These are especially necessary in the breeding of poultry. Your

male birds should be often changed, say at least once in two years, and they should be young and vigorous. Breeding in and in will not do, any more than it will with animals.

I consider winged game poultry and birds the farmers' friends. My poultry have access at all times to my fields. Fowls are very useful in cleaning off flies. I have often been amused at seeing the neat and quick manner of their taking flies from reposing bullocks and sheep, much to their comfort.

WILL POULTRY PAY?

Yes and no! In a yard, no! unless it is in a farm yard, a yard attached to a gentleman's or other premises where there is a stable and where it is common for other things besides poultry. In such yards twenty hens will pay more and raise more chickens, making ten years in succession, than large numbers; but for all that poultry book writers may say or fanciers who know all about how every feather on a fowl should grow, and how they should be marked, pencilled, &c., may dictate, I positively state a poultry yard to be the very worst place for any kind of fowl. Yes, a strictly private, well fenced and beautifully arranged poultry yard is the worst place to grow poultry in greater numbers than a dozen that they can be kept in, and such a flock must not be allowed to set and hatch and raise chickens, or they will be diseased. I speak so decidedly because, though not knowing aught about the fancy coloring and disfiguring of fowls by top-knots and feathered legs, &c. I have, in the course of the last fifty years, seen more of the failures in raising (and of successes, too) than perhaps any other man who is living at this day; and of course as regards health and prosperity in rearing common fowls for market, will apply to the keeping of poultry selling for hundreds of dollars each.

Mr. Lewis Nelson says:—"We are going to start a poultry yard on a large scale." There never was and never will be a yard on any large scale that will pay, no matter how clean they are kept. The variety of food, the extraordinary attendance, and the less eggs confinement cause to follow, will make any attempt of the kind certain loss. For interested motives, one or two large yards of poultry have been represented to prosper and to have been healthy undertakings; but they were complete misrepresentations, and in two instances were total failures, not only not paying, but even fowl dying.

In 1820 one of the most expensive and most convenient poultry houses, fattening house and yards attached, was brought into use by one of the old East India Company in England, who had retired and bought a beautiful estate. Everything that imagination could desire was afforded to make it successful. This was in the West of England, and all that the most lavish expenditure and careful management could do was done. A woman from Dorling, in Surrey, was obtained, and the best fowls known were bought, coupons being fattened to an extraordinary weight &c., but although this was only to supply one mansion, instead of doing it, after the first start no chickens could be raised, and disease took off all the old fowls, while at the extensive farm yard, where there was no restraint, and hens, ducks, &c., had perfect liberty to roam in the pastures adjoining, prosperity abounded. The game-keeper, too, had at the same time the most astonishing success in raising pheasants, partridges and wild ducks. As a boy, with a great liking for livestock, I was in the habit of running over frequently to see them, for my father lived on the farm adjoining the preserves, and the steward's children and my brothers and sisters were school fellows.

The gamekeeper's management of his pheasants and partridges, which he raised with common hens, by putting under them eggs which used to be mowed out in the tenant farmers' fields, gave me the knowledge how to assure perfect health in great numbers of any of the feathered tribe. He has bought hens of the farmers' wives which wanted to set, or giving them a good price for the use of them, and kept them ready to put eggs under them when brought; the mowers bringing the eggs, always receiving a present of half a crown, as an encouragement to take care of them and start with them so that they would not get cold. When hatched, they were put in coops and every one was mowed daily on fresh ground. Several hundreds of each variety would be raised annually without the slightest ailment, because they had sweet clean green-sward to range over; and ever since that time it has been quite clear to my comprehension that the only way to keep poultry healthy is not to confine them in one place.

NEW YORK EGG TRADE.

The New York Correspondent of the Rochester Democrat and Chronicle thus describes the egg trade:—"The extent which this business has reached shows how greatly a small item may expand under favorable

circumstances. In former days the market was supplied from Central New York and New Jersey, but the present railway facilities are changing the state of trade. The great centre of supply is now Ohio, while large quantities are brought from Indiana & Illinois. The chief depot of the egg trade on this continent is the village of Cardington, which is less than 100 miles south of Cleveland, and in the midst of a very productive country. Although the population of Cardington is under 1,200, it is a lively place of business, but the egg trade absorbs most of its energies. As the market is liable to be glutted in hot weather they have adopted the custom of pickling eggs, and one concern has had at one time nearly 10,000 doz. thus laid up. These eggs are kept until autumn, when good prices may be obtained, and now they are coming in very rapidly, the receipts being more than a thousand barrels per month. When a vat is full it is covered with muslin, the top of which is coated with whitewash. The pickle is called a secret composition, but it is generally understood among the trade. During the month of September eggs are often packed in barrels without straw, which protects them from the injurious influence of the atmosphere. They can be kept in this manner for one or two months, all that is required being to have the barrels turned from one head to another every day.

VALUE OF DIFFERENT BREEDS.

The following may be beneficial to those not acquainted with the prominent points of some of our pure breeds:—

In the egg producing class, the Leghorns stand pre-eminently above all others. This variety consists of the white and brown. The whites appear to be the favorites, being hardy, easily raised and mature quickly, the pullets often laying at four months. Pullets of this breed have been known to lay 240 eggs during the year. Their large comb and pendulous require a warm house during our rigorous Canadian winters.

The next in high favor is the Black Spanish; these, like the former, are non-setters and prolific, but not so easily raised. They do not, until nearly grown, get their full feathers, being generally half naked for a considerable time after hatching. These, like the Leghorns, require comfortable winter quarters, owing to their large comb and watery freezing and then mortifying. The Houdans, a French breed, come next as non-setters. This is what they call a *made* breed between the Poland and Dorking—showing the characteristic crest of the former and the fifth toe of the latter. Although not as continual layers as the two varieties mentioned, yet they possess points superior to the others in size, delicacy of flesh and hardihood, but very liable to disease.—Poultry World.

The Apiary.

BEEES AND WASPS.

Sir John Lubbock has just read a paper on the above subject at the Linnean Society. The paper commenced by pointing out, with reference to the power of communicating with one another as to be possessed by the Hymenoptera, that the observations on record scarcely justify the conclusions which have been drawn from them. In support of the opinion that ants, bees and wasps possess a true language, it is usually stated that if one bee discovers a store of honey, the others are soon aware of the fact. This, however, does not necessarily imply the possession of any power of describing localities, or anything which could correctly be called a language. If the bees or wasps were merely follow their fortunate companions, the matter is simple enough. If, on the contrary, the orders are sent, the case will be very different.

In order to test this, Sir John kept honey in a given place for some time, in order to satisfy himself that it would not readily be found by the bees, and then brought a bee to the honey, marking it so that he could ascertain whether it brought others or sent them, the latter, of course, implying a much higher order of intelligence and power of communication. After trying the experiment several times with single bees and obtaining only negative results, Sir John Lubbock procured one of Marriott's observatory hives, which he placed in his sitting room.

The bees had free access to the open air; but there was also a small side or postern door that could be opened at pleasure, and which led into the room. This enabled him to feed and mark a very particular bees; and he recounted a number of experiments, from which it appeared that comparatively few bees found their way through the postern, while of those which did so, the great majority flew to the window, and

scarcely any found the honey for themselves. Those, on the contrary, which were taken to the honey, passed backwards and forwards between it and the hive, making on an average five journeys in the hour.

Sir John had also, in a similar manner, watched a number of marked wasps with very similar results.

These and other observations of the same tendency appear to show that, even if bees and wasps have the power of informing one another when they discover a store of good food, at any rate they do not habitually do so; and this seemed to him a strong reason for concluding that they are not in the habit of communicating facts. When once wasps have made themselves thoroughly acquainted with their way, their movements were most regular. They spent three minutes supplying themselves with honey, and then flew straight to their nest, returning after an interval of about ten minutes, and thus making, like the bees, about five journeys an hour. During September they began in the morning about six o'clock, and later when the mornings began to get cold, and continued to work without intermission till dusk. They made, therefore, rather more than fifty journeys in the day. Sir John had also made some experiments on the behavior of bees introduced into strange hives, which seemed to contradict the ordinary statement that strange bees are always recognized and attacked.

Another point as to which very different opinions have been propounded is the use of the antennae. Some entomologists have regarded them as olfactory organs, some as ears, the weight of authority being perhaps in favor of the latter opinion.

In experimenting on his wasps and bees, Sir John, to his surprise, could obtain no evidence that they heard at all. He tried them with a shrill pipe, with a whistle, with a violin, with all the sounds of which his voice was capable, doing so, moreover, within a few inches of their heads, but they continued to feed without the slightest appearance of consciousness. Lastly, he recounted some observations showing that the bees have the power of distinguishing colors. The relations of insects to flowers imply that the former can distinguish color; but there had been as yet but few direct observations on the point.—Rural New Yorker.

WHEN BEE KEEPING DOES NOT PAY—WHAT THEN?

Hogs have sold for less than the value of the corn fed in fattening. Cattle brought less than cost of raising. Poultry could be had for less than the value of food fed them. Yet all required as much care as if sold at a profit. We would, however, think that farmer very unwise who would quit the raising of live stock or grain, because of low prices or severe winters. If bee-keeping farmers would use as much precaution in preparing pasturage and shelter for their bees as they do for other stock, I doubt not but a few years' experience, backed with a comparative table of facts and figures, would convince them that bee-keeping would prove as remunerative as any business in which they are engaged. The man who expects a large crop of fine fruit each year, without pruning or cultivating his orchard; he who hopes to harvest a heavy crop of wheat, corn or oats, without properly ploughing or pulverizing the soil; he who expects to cut a heavy swath of hay every year from a meadow which he devotes half the year to pasturage; and the bee-keeper who expects to get a large yield of honey without giving his bees any attention whatever, are all sure to be disappointed with their business, and declare "it don't pay."—Bee Keeper's Magazine.

THE USE OF COFFEE.

Some persons disapprove of coffee, and undoubtedly there are constitutions for which it is inappropriate. But there is high medical authority in favor of its general use, particularly among persons predisposed to sluggishness of the kidneys, or to gout or rheumatism, or devoted to sedentary pursuits. Some one has computed that a cup of well-made *cafe au lait* contains from six to ten times as much solid nutriment, and three times as much nitrogenous matter, as does the same quantity of ordinary broth. In hot summer weather it is a most refreshing and invigorating drink, taken either hot or cold. It should be made, however, very strong in the first instance—say, a dessert spoonful of ground coffee to each cup—and then weakened to the taste. Try it once or twice without milk or sugar.

CURE FOR RHEUMATISM.

The following is said to be an excellent cure for rheumatism: Half a tea-spoonful of Rochelle salts, to be taken every morning half an hour before breakfast. Hot drinks, spirits, wine, beer, cider, pepper and spices to be avoided, and all grease except sweet butter. Fresh meat or poultry may be eaten twice a day, but salt meat and fish must be abstained from.



MINNIE MAY'S DEPARTMENT.

This month I give you a chapter on Tomatoes. This vegetable is so excellent in any way that it is cooked, that it deserves a good space.

METHODS OF COOKING TOMATOES.

Prominent among the delicious vegetables of the season, we rank tomatoes, and they are most desirable additions to every breakfast, dinner and supper table. The pleasant acid of the pulp is beneficial to the system, and there are few people to whom it is obnoxious; some, however, declare that it acts upon the stomach like calomel, and will even produce salivation if indulged in too frequently. If this is true, torpid livers are induced to a healthier action, and disease is thus avoided by a plentiful supply of tomatoes in their season, and a large amount of canned ones out of season.

In canning this vegetable, it is much better to select the earliest ripening ones, as they are far more likely to keep well, for the tomato, like the sweet potato and melon, is a native of tropical climes, and the greater the heat at the period of its ripening, the sweeter and richer are its juices. Late ripened tomatoes, or those maturing when the mercury runs down below 50° at night, require more cooking before canning than those which ripen early in September.

Every one knows how to stew tomatoes, but every one does not cook them slowly for two or three hours, and thereby add much to the richness of their flavor. Just before serving the vegetable, an addition of two or three tablespoonfuls of gravy from the dripping pan is also agreeable.

BAKED TOMATOES.

This is my favorite method of cooking them:—Select large ripe tomatoes, wash and wipe them clean; cut in halves around the tomato; place each half, with the cut side uppermost, into a dripping pan and cover its surface with grated bread crumbs, bits of butter, a teaspoonful of fine sugar, and a seasoning of salt and pepper. Pour in at the side of the pan two tablespoonfuls of boiling water. Put the pan into the oven and bake two hours, taking care, however, not to burn the upper surface of the tomatoes. Serve on a platter. It is delicious for either a breakfast or dinner dish.

BROILED TOMATOES.

Slice the tomatoes in halves, rub a piece of fat pork on the heated bars of a gridiron, put the tomatoes upon them and broil on each side. Cooked either with beefsteak, or separately, they make a fine relish.

TOMATO OMELET FOR BREAKFAST.

Peel and chop fine five tomatoes of good size; season them with salt and pepper; add to them half a teacup of grated bread. Beat four eggs to a foam and stir into the tomatoes. Heat a "spider" hissing hot, put in a small piece of butter, turn in the mixture and stir rapidly until it begins to thicken. Now let it brown for two or three minutes on the bottom, then lap it half over, slip on to a hot dish, and serve for breakfast, garnished with sprigs of parsley and slices of hard boiled eggs. It is an appetizing and also a handsome dish.

TOMATO PRESERVES.

The small yellow tomatoes make preserves equal to those of the West Indies. Select well-ripened fruit, stem and wash well. To every six pounds of tomatoes add five pounds of white sugar. Put the tomatoes into a kettle, with just enough water to prevent them from burning. Steam, with a tight cover over them, until the skins break. Skim out the fruit and add the sugar, with a little more water, if needful, to melt it. Boil for twenty minutes; put in the tomatoes again, let them boil up once, and turn the whole into a closely covered jar. In the late winter slice up two lemons and add to the tomatoes.

TOMATO MARMALADE.

To each pound of tomatoes add one pound of white or brown sugar, first scalding peeling and slicing the red tomatoes. Put over a slow fire and boil down until it is well thickened; add one tablespoonful of powdered ginger and the juice of grated peel of two lemons to every three pounds of tomatoes. Boil from two to three hours, skimming off all froth. When very thick turn into small jars and cover tightly. This is a delicious relish for lunch or supper, and no one could recognize the taste of tomato in it.

TOMATO CATSUP.

Take a bushel of ripe tomatoes, wash clean, and boil in a large kettle, with only enough water to keep them from burning, for one hour. Rub through a fine sieve to take out all the seeds. To every quart of juice add one tablespoonful of ground mustard, one each of ground cinnamon, cloves and grated nutmeg, one tablespoonful of the strongest black pepper, and three tablespoonfuls of fine salt. Boil slowly for two hours; then to each quart of juice add half a pint of pure cider vinegar, and boil half an hour longer. Bottle while hot, and seal up with tallow and rosin melted together. This catsup will keep for years, and will not require to be shaken up before turning from the bottle. A porcelain kettle is best for its manufacture. Onions add to its flavor if boiled with the tomatoes at first.

ANOTHER RECIPE FOR TOMATO CATSUP.

Cut ripe tomatoes in pieces; boil in a porcelain lined kettle or a new tin pan, until they will strain easily; then strain through a fine colander or sieve so coarse that it will only keep back seed and skins. Take ten quarts of the strained tomato, add the red peppers and boil until reduced to half the quantity; then add the spices ground and half the vinegar; add the salt just before taking off the fire. Bottle and seal as soon as cold. Do not let it remain in tin after it is cold. The red pepper pods should be broken and left in the catsup until it is ready to bottle.

For every ten quarts of the strained tomato use four tablespoonfuls of cinnamon, three and one half grated nutmegs, five tablespoonfuls of allspice, five tablespoonfuls of black pepper, three tablespoonfuls of cloves, seven tablespoonfuls of salt, two quarts and one pint of good vinegar, nine long red peppers. Have the tablespoon slightly heaped when measuring the spices—and the spices have freshly ground, if possible. The catsup is better the second year after it is made; if well sealed, and kept in a cool cellar, it will keep for years.

TOMATO SAUCE.

To one gallon of stewed and strained tomatoes add six tablespoonfuls of fine salt three of pepper, four of allspice, two of cloves and one of nutmeg, all powdered. Boil for an hour; then add one and a half pints of vinegar; boil fifteen minutes. Bottle hot, and put one tablespoonful of alcohol on the top of each bottle, then seal closely.

TO KEEP TOMATOES FOR WINTER USE.

As the tomato season is now here, I contribute one way for keeping them for winter use that may be new to some of your readers. I ate them in February, sliced and seasoned with sugar and a little vinegar, that seemed every way as nice as tomatoes picked from the vines. They were preserved in the following manner:—Dissolve a teacup of salt in a gallon of water. Pick ripe tomatoes, but not over ripe, leaving little of the stem on. The tomatoes must be well covered with brine, and they will keep till spring or over.—G. H.

YELLOW PICKLE.

To each gallon of vinegar take a quarter of a pound of brown mustard seed, two ounces of long pepper, two of black pepper, two of garlic, one of tumeric, quarter of an ounce of mace, half a pound of salt and a few roots of horse-radish. Let the salt and spice be well dried and put them into the vinegar cold. Gather your vegetables on a dry day, strew over them a little salt, and let them stand two or three days, then put them on a hair sieve, either in the sun or by a fire to dry. Put them in a large jar with the vinegar, and let them stand by the fire for ten days; it must not, however, be allowed to become any hotter than new milk.

SWEET PICKLES.

Twelve pounds of fruit, six pounds of sugar, and a quart of cider vinegar; cloves and cinnamon. Let the fruit boil in the above until done; take out, put carefully on a dish, let the syrup boil down, then put in fruit again and boil a few minutes; fill jars and seal with tissue paper dipped in white of egg.

CABBAGE SALAD.

Raw cabbage composes a part of our dinner every day, and I have various methods of preparing it, but I think the following the best:—

Shave a hard, white cabbage in small strips. To one quart of it take the yoke of three well-beaten eggs, a cup and a half of good cider vinegar, two teaspoonfuls of white sugar, three tablespoonfuls of thick cream, or two tablespoonfuls of olive oil, one teaspoonful of mustard mixed in a little boiling water; salt and pepper to taste. Mix all but the eggs together, and let them boil for five minutes; then stir in the eggs, rapidly, for another five minutes. Turn the cabbage into the mixture, and let it scald for five minutes, stirring it all the time.

Set it on snow or ice to cool, and serve perfectly cool.

I always make enough for two days, at once, and it keeps perfectly, and it is an excellent relish to all kinds of meat.

PEACH JELLY.

For a table ornament nothing is more elegant. Dissolve in sufficient water one oz. of isinglass; strain it; halve one dozen large peaches and pare them; make a syrup of one pound of fruit sugar and half a pint of water. Into this put the peaches and kernels; boil gently fifteen minutes; then place the fruit on a plate and cook the syrup ten minutes longer; add to it the juice of three lemons and the isinglass. A pyramid mould is very pretty for this. Fill part full of jelly, and when set, put in one-quarter of the peaches. Place on ice and let it harden; add more jelly, harden, etc., until full. Let the base of the mould be jelly.

HOP YEAST.

One and a half pounds of grated raw potato, one quart of boiling water in which a handful of hops have been boiled, one teacup of white sugar (coffee sugar), one half teacup of salt; when almost cold put a little good yeast to start it, say about half a pint. One pint of this yeast makes four good-sized loaves of the most delightful bread you ever eat.

TO DRY GREEN CORN.

On a warm, bright day take a shallow box, set slanting where the sun will shine full upon it. Spread clean cloths in your box. Prepare your corn as you like, and spread it evenly over the bottom of the box; then cover very closely with a window sash. The heat will be so great no fly can live. Your corn will dry in one day and be perfectly clean.

BRINE FOR THE PRESERVATION OF BUTTER.

To three gallons of brine strong enough to bear an egg, add a quarter of a pound of nice white sugar and one teaspoonful of salt-petre. Boil the brine and when it is cold strain carefully. Make your butter into rolls and wrap each roll separately in a clean white muslin cloth, tying up with a string. Pack a large jar full, weight the butter down, and pour over the brine until all is submerged. This will keep really good butter perfectly sweet and fresh for a whole year. Be careful not to put ice upon butter that you wish to keep any length of time. In summer, when the heat will not admit of butter being made into rolls, pack closely in small jars, and, using the same brine, allow it to cover the butter to a depth of at least four inches. This excludes the air, and answers very nearly as well as the first method suggested.

Pickering, Aug. 25, 1874.

DEAR MINNIE,—I have watched with interest, which was very great, your column as it gradually grew, and I dare say that Mr. Weld will have to clear the track, as my

wild brother says, for your paper seems to find its way into the farm houses around here, and your recipes work like magic. I wish you would give some frame work, and explain paper basket work, the fringed kind, in your next paper; not cone-work, but any kind of paper, wool or pasteboard frames for small pictures. I intend to join Uncle Tom's Column, if he will have me. I am pretty fair at guessing and giving puzzles, and if you will put in a good word for me I have no doubt he will have me, as I think you really are Mrs. Uncle Tom.

Yours truly,

BOLLA RENTON.

Will some of my correspondents give the required information.

MINNIE MAY.

ZINC WHITEWASH.

Mix oxide of zinc with common size, and apply it with a whitewash brush to the ceiling. After this, apply in the same manner a wash of the chloride of zinc, which will combine with the oxide to form a smooth cement with a shining surface.

MOTHS IN CARPETS.

To prevent moths from injuring carpets, buy half a pound of gum camphor, and that will save all the carpets in your house for a year, by placing a few little crumbs under the edges of the carpets without moving them.

TO CURE A FELON.

Many persons are liable to extreme suffering from felons on the finger. These afflictions not unfrequently occasion permanent crippling of the members affected. The following simple prescription is recommended as a cure for the distressing ailment: Take common rock salt, such as is used for salting down pork or beef; dry it in an oven; then pound it fine and mix with spirits of turpentine in equal parts. Put it in a rag and wrap it round the parts affected, and as it gets dry, put on more, and in twenty-four hours we are cured—the felon will be dead. It will do no harm to try it.

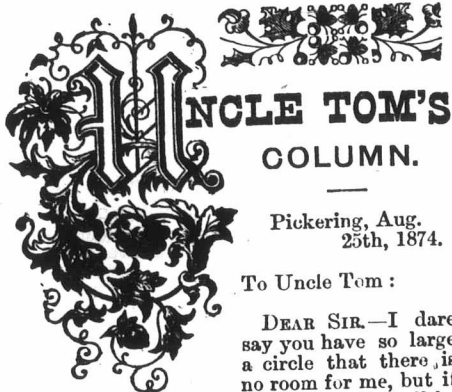
PROVING AN ALIBI.

The following took place in an attempt to prove an alibi:—
Attorney S.—"You say that Ellis plowed for you all day on the 29th of November?"
Witness (referring to his book).—"Yes."
S.—"What did he do on the 30th?"
W.—"He chopped wood."
S.—"On the 31st?"
W.—"That was Sunday, and we went a squirrel-hunting."
S.—"What did he do on the 32d?"
W.—"He threshed the wheat on that day."
S.—"What did he do on the 33d?"
W.—"It was raining and he shaved out some handles."
S.—"What did he do on the 34th?"
W.—"He chopped wood."
S.—"What did he do on the—"
But before the question could be finished, the witness' wife seized him by the collar and whisked him outside of the witness-box, yelling in his affrighted ear, "You old fool! don't you know there are only 31 days in the month of November!"

DEODORIZER FOR CESS POOLS.

Take of unslacked lime one pound, crude sulphate of iron four pounds, put them into a pail and fill up with water. Stir all together until the iron salt is quite dissolved; at which time the lime decomposes it, setting free iron oxide in the form of a black-brown precipitate. When required for use stir well together, and use one or two quarts as may be found needful. The bad odors will be instantly found to cease. Nauseous gases are mostly composed of sulphur compounds, which unite with iron, producing inert products. The crude sulphate of iron is commonly known of green copperas. Builders use it, when mixed with lime as above, for brushing over old brick walls previously to painting them.

The Cottage Gardener says that nothing is so good for goslings as grass; that is probably why so many are kept where there are commons. Oatmeal put in a pan of water is excellent food for them, and it is often wise to add some bran to it. Chickens should have bread and milk, chopped egg, cooked meat cut up fine, crumbs, sods of growing grass, fresh earth, and in bad weather, beer.



UNCLE TOM'S COLUMN.

Pickering, Aug. 25th, 1874.

To Uncle Tom :

DEAR SIR—I dare say you have so large a circle that there is no room for me, but if you will kindly take notice of me, I shall be very glad.

STELLA G. RENTON.

267. It was done when it was begun; it was done when it was half done, yet it was not done when it was finished.

268. I make little folks laugh, I make little folks cry, For sometimes I am physic, And sometimes I am pie.

CHARADE.

269. Papa this morning bought my first, In colors gay and bright; And Laura claps her tiny hands And laughs in great delight.

My second Laura is, you'll find, And many a pretty thing To please her, from the toyshop near, Her kind papa will bring.

Upon a stool Miss Laura sits, While to my first she ties A silken cord, that she may draw Along my whole—her prize.

STELLA G. RENTON.

Poplar Grove, July 31st, 1874.

Dear Uncle Tom,—

I have intended writing for a long time, so I thought I would write at last and send some puzzles, scraps, &c. I am sorry for your unfortunate pocket. I think Aunty Tom must make some button-holes and sew some buttons on, and button it up.

ADDIE G. BRAY.

270. I am composed of 12 letters : My 1, 9, 3 is a vessel, My 10, 12, 11, 7 is part of a foot or part of a hand,

271. My 1st is in date but not in state, My 2nd is in Laura but not in Kate, My 3rd is in Arthur but not in Bill, My 4th is in Harry but not in Will, My 5th is in flask but not in gun, My 6th is in mother but not in son, My whole is a county in Ontario.

272. My 1st is in Frank but not in Tom, My 2nd is in Nona but not in Sue, My 3rd is in Xenophon but not in said, My whole is a harbor in Newfoundland.

HIDDEN RIVER.

273. Will Ethel be there?

HIDDEN FISH.

274. I heard her ring the bell for you.

275. Give it a slight rub as she does.

Kilsyth, Aug. 13th, 1874.

Dear Uncle Tom,—

Being one of those despised beings, known in your family circle as a "Big Brother," it

may be thought very presumptuous of me to try to shove myself in edge ways, but "never venture, never win," is my motto. Perhaps some of my fair cousins who have been hurling anathemas on the heads of such bipeds as I, may belong to a Grange, so I send them a little doggerel as a peace offering.

"HUMBUG."

I WANT TO BE A GRANGER.

I want to be a Granger, and with the Grangers stand, A bony-fisted farmer, with a hay stack in my hand; Beneath the tall tomato tree I'll swing the glittering hoe,

I'll buy a Short-horned Durham ram, and a grey Alpacha cow, A Lock-stitch Osage stump machine, and a patent leather plow; I'll buy a span of fishing boats, a hand saw and a horn, And a cord of blacksmith's bellowses to prune the early corn.

I'll buy some silent motion swine, and double-turbine ewes— Oh then I'll sweep the prizes, boys, at all the county shows; I'll have some sturdy carpenters to draw the egg machine, To weed the pumps and hand saw files, and chicken hawks so green.

I'll need some Indian lightning rods, that feed on iron shucks, A patent lever sawing horse to milk the Arabian ducks. Oh, when I am a Granger I'll make the nations stare, To see me drive my hornet hive a gentleman so rare.

Please excuse bad writing, as I have a bealing hand. If this is not worth putting in print, please pass it on to the waste basket without further notice.

A. H. FINCH.

JUSTIFIABLE SUICIDE.

Is suicide ever justifiable? A Pittsburg paper states that near Titusville, Pennsylvania, a melancholy case of self-murder occurred. The following schedule was found in the victim's left boot :

"I married a widow that had a grown up daughter. My father visited our house very often, fell in love with my step-daughter, and married her; so my father became my son-in-law, and my step-daughter my mother, because she was my father's wife. Some time afterward my wife had a son; he was my father's brother-in-law and my uncle, for he was the brother of my step-mother. My father's wife, i. e., my step-daughter, had a son; he was, of course, my brother, and in the meantime, my grand-child, for he was the son of my daughter. My wife was my grand-mother because she was my mother. I was my wife's husband and grand-child at the same time, and, as the husband of a grand-mother is his grandfather, I was my own grandfather."

UNCLE TOM'S SCRAP BOOK.

THE MAN THAT DIDN'T LIKE TRIPE.

Liston, the actor, delighted in a peculiar sort of practical joking in the streets. Walking one day with Mr. Miller, a theatrical bookseller, he happened to mention casually that he was going to have tripe for dinner, a dish of which he was particularly fond.

"Tripe! beastly stuff! How came you to eat it?" That was enough for Liston. He stopped suddenly in the crowded thoroughfare, in front of a house, and holding Miller by the arm, exclaimed in a loud voice:

"What, sir! Do you mean to assert that you don't like tripe?" "Hush! muttered Miller, 'don't talk so loud; people are staring at us.' 'I ask you, sir,' continued Liston, in still louder tones, 'do you like tripe?' 'For heaven's sake, hold your tongue!' cried Miller; 'you will have a crowd around us.'"

And naturally people began to stop and wonder what was the matter. This was exactly what Liston wanted, and again he shouted: "Do you mean to say you don't like tripe?" Miller, making a desperate effort, broke from him, and hurried away in consternation, followed by Liston, bawling after him: "There he goes! That's the man that doesn't like tripe!" to the immense amusement of the numerous wayfarers, many of whom recognized the popular comedian, till

the horrified bookseller took to his heels and ran as if for life, pursued to his very doorstep by a pack of ragamuffins, who took up the cry: "There he goes!— the man that doesn't like tripe!"

BELLA FISCH.

A young man sent his girl a box of grapes, and the next day a fellow met him on the street and said: "Those grapes were jolly good last night. Send some up every Wednesday evening; that's my night, you know."

A LITTLE NERVOUS.

A good story is told of a lying officer having been victimized by a brother officer, who was noted for his cool deliberation and his strong nerves, and his getting square with him in the following manner:

The cool joker, the captain, was always quizzing the lying officer for his nervousness, and said to him one day in the presence of his company:

"Why, nervousness is all nonsense; I tell you, lieutenant, no brave man will be nervous."

"Well," enquired his lying friend, "how would you do, thuppothe a thell with an inch futhe should drop itself into a walled angle, in which you had taken shelter from a company of sharpshooters, and where it wath thertain if you put your nothe out you'd get peppered?"

"How," said the captain, winking at the circle; "why, I'd take it cool, and spit on the fuse."

The party broke up, and all retired except the patrol. The next morning a number of soldiers were assembled on the parade ground and talking in circles, when along came the lying lieutenant. Lazily opening his eyes, he remarked:

"I want to try an experiment thith fine morning, and thee how excee'ingly cool you can be."

Saying this, he walked deliberately into captain's quarters, where a fire was burning on the hearth, and placed in the hottest centre a powder cannister, and retreated. There was but one mode of egress from the quarters, and that was upon the parade ground, the rear being built up for defence. The occupant took one look at the cannister, comprehended his situation, and in a moment dashed at the door, but it was fastened.

"Charlie, let me out, if you love me!" shouted the captain.

"Thupit on the cannithter!" shouted the lieutenant, in return.

Not a moment was to be lost. He had first snatched up a blanket to cover his egress, but now dropping it, he raised the window, and out he bounded sans everything but a very short under-garment, and thus, with hair almost on end, he dashed upon the full parade ground. The shouts which hailed him drew out the whole barracks to see what was the matter, and the dignified captain pulled the sergeant in front of him to hide himself.

"Why didn't you thupit on it?" asked the lieutenant.

"Why, because there were no sharpshooters in front to prevent a retreat," answered the captain.

"All I've got to thay, then, ith that you might thafely have done it; I'll thwear that there wath not a grain of powder in it."

The cap'tain has not spoken of nervousness since.—Traveler's Record.

BELLA FISCH.

A housemaid writes to a friend respecting the fashions of the city. She says: "As for loo'ees, the loer it is the more fashionabil you air dressed. Miss Goodra gave me a blue silk of hern, and I cut its nec'orf, and Suzin Simmons cut off hern, and we atrax a great deal of attention to our nees, promoting the streets like uth'er ladsy's and holden up our cloz. Nobody isn't nothin' now which doesn't hold up her cloz, and the heir yu hold them the more you air noticed."

NATIONAL CHARACTERISTICS.

At a recent dinner party, some one quoted the witty paradox, that "an Englishman is never happy unless he is miserable, a Scotchman never at home except when abroad, and an Irishman never at peace except when at war."

The late Sir Henry Holland, who was present, followed with a story of an Englishman, an Irishman and a Scot-man, who were represented looking through a confectioner's window at a beautiful girl sewing in the shop.

"Oh!" exclaims Patrick, "do let us be spending a half crown with the bear crayture, that we may look at her more conveniently and have a bit of a chat with her."

"You extravagant dog," said John, "I am sure one-half the money will do as well; but let us go in by all means, she is a charming girl."

"Ah, wait a wee," interposed the canny Scot, "dinna ye ken it'll serve our purpose equally well just to ask the bonnie lassie to give us twa sixpences for a shilling, an' to enquire where's Mr. Sampson's hoose an' sic like?— We're no hungry, an' may as well save the siller."

This anecdote was told by the distinguished physician to illustrate the difference among the populace of the three kingdoms with respect to temperament—the Irish ardent and impetuous, the Scotch comparatively cool and cautious, while the English are perhaps a fair average between the two.

Another titled gentleman told a story of two friends who made an experiment in London by speaking to every laborer they met between St. Giles and Holborn Hill, until they found one belonging to each of the three nationalities, and to each, but separately, they put the question:

"What would you take to stand on the top of the monument all night in your robe de nuit?"

The Englishman, in a straightforward way, replied at once, "Five pounds." The Scot cautiously asked "What'll ye gie?" And the Irishman exclaimed off-hand, "Shure I'll be afther taking a bad coold."

An Englishman thinks and speaks, a Scotsman thinks twice before he speaks, and an Irishman often speaks before he thinks; or, as some writer has remarked, a Scotsman thinks with his head and an Irishman with his heart.

We may recall another illustration, given by a celebrated poet:

When George IV went to Ireland, one of the 'pisintry,' delighted with his affability to the crowd on landing, said to the toll-keeper, as the king passed through—'Och, now, an' his Majesty—God bless him!—never paid."

"We let's 'em go free," was the answer. "Then there's the dirty money for ye," said Pat. "It shall never be said the king came and found nobody to pay the turnpike for him." Thomas Moore, on his visit to Abbotsford, told the story to Sir Walter, when they were comparing notes as to the royal visit.

"Now, Mr. Moore," said Scott, "there you have the advantage of us. There was no lack of enthusiasm here, for the Scotch folk would have done anything in the world for the king but—pay the turnpike."

ONE-LEGGED PANTS AND CAVALRY BOOTS.

A one-legged soldier walking up the Bowery, New York, the other day, was accosted by a clothing merchant with the usual "Sell you something to-day?"

Entering the store the veteran was invited to inspect the large stock, but having looked through the array of vests and trousers, he turned to go, saying that he saw nothing there that would suit him.

"Well, vat you vanta?" "I want a pair of one-legged pantaloons."

"Vas dat all? Yaacob, bring me one of dem one-legged grey pants on dot pile in de corner." In a few minutes Jacob returned, and reported that the last pair had been sold.

Meanwhile the partner next door, who had been listening through the thin partition, had mapped out a plan of campaign against the one-legged cripple. "Yohn," he whispered to the attendant, "cut me off de leg of one of dem grey pants. Send him up quick."

By the time this had been done the soldier had hobbled out of the first store, only to be inveigled into the second. Again he went through the inspection of odds and ends, and again demanded one-legged trousers, intimating that he didn't believe the trade had them.

"Not haf one-legged pants. Fadder Moses! vat you takes me for? Yohn, bring me one of dem one-legged grey pants in dat pile in de back of de shstore."

The newly altered trousers were produced, and the waggish soldier gave himself up as lost. But as he spread them before him he became conscious, as did the dealer, of something wrong.

"Mein Gott! Fadder Abraham! Yohn, you haf ruin me! You haf cut off de wrong leg."

Another of the Chatham street dealers had what he called army brogans and cavalry boots. An ex-soldier purchased a pair of the latter one rainy day, but returned to the store within a few minutes, complaining that the soles were of pasteboard and had already soaked to a pulp.

"Vot you as done mit dem boots?" asked the dealer.

"Why, I walked two or three blocks." "Walk! You valk in dem boots! Vy, dem is gavalry boots."

That well-worn subject, "Whittington and His Cat," is to be made the subject of an opera bouffe, to be produced as a Christmas novelty in London next December. M. Offenbach, it is said, has entered into a contract with Messrs Cramer & Co. to write the opera, and its production at Covent Garden will, no doubt, be looked forward to with a considerable amount of interest.

Good Health.

MILK AS A DIET AND ITS EFFECTS ON THE SYSTEM.

There is considerable difference of opinion on the subject of a milk diet. It is surrounded by a mass of whims or prejudices, and of mistaken ideas, which are based more on individual fancies than upon certain facts. To one a glass of milk imbibed is believed to be a sure provocation of a bilious attack; to another, a disordered stomach; to a third, drowsiness, and so on through such a category of simple though disagreeable ailments that we look aghast at the farmer who drains cup after cup of the fresh, pure liquid time and again during the day, and wonder at the resisting powers which his organization must possess. The truth is, however, that milk is not unwholesome. On the contrary, it contains good, substantial bone, muscle, flesh and brain producing substances, which, assimilating quickly, act rapidly in building up the body. Naturally, we assert it is nourishing; that it does bring on certain troubles is nevertheless true, but the cause is in the individual stomach, not in the milk, provided, of course, the latter be fresh and sweet.

The *Commercial Advertiser* of recent date had some excellent remarks on this subject, which are well worthy of repetition: "Milk diluted with one-third lime water, it is said, will not cause any one biliousness or headache, and, if taken regularly, will so strengthen the stomach as to banish these disorders. It may be taken with acid of some kind when it does not easily digest. The idea that milk must not be eaten with pickles is not an intelligent one, as milk curdles in the stomach nearly as soon as it is swallowed. When milk is constipating, as it is frequently found to be by persons who drink freely of it in the country in the summer time, a little salt sprinkled in each glassful will prevent the difficulty. When it has an opposite effect, a few drops of brandy in each goblet of milk will obviate its purgative effect. As milk is so essential to the health of our bodies, it is well to consider when to take it, and how. It is a mistake to drink milk between meals, or with food at the table. In the former case it will destroy the appetite; and in the latter it is never proper to drink anything. After finishing each meal a goblet of pure milk should be drank; and if any one wishes to grow fleshy, a pint taken before retiring at night will soon cover the scrawniest bones. In cases of fever and summer complaint, milk is now given with excellent results. The idea that milk is 'feverish' has exploded, and it is now the physician's great reliance in bringing through typhoid patients or those in too low a state to be nourished by solid food."

BORAX FOR COLDS.

A writer in the *Medical Record* cites a number of cases in which borax has proved a most effective remedy in certain forms of colds. He states that in sudden hoarseness or loss of voice in public speakers or singers from colds, relief for an hour or so as by magic, may be often obtained by slowly dissolving and partially

TESTIMONIALS

FROM THE HON. GEO. BROWN AND OTHERS.

Bow Park, Brantford, 7th July, 1873: Messrs. Hugh Miller & Co., my Dear Sirs—Your Yorkshire Feeder is all and more than it is represented to be; a table-spoonful daily works marvels; it sharpens the appetite, helps digestion, and gives a healthy tone to the whole system. Yours truly, GEORGE BROWN.

Banzor, Pickering, April, 1872: Hugh Miller & Co.—I have used your Yorkshire Cattle Feeder to cattle that I was anxious to make up quickly. It had the desired effect, and is the best thing I ever used. I strongly recommend farmers to use it. SIMON B. CATTLE.

Landsing, March 29th, 1872: Hugh Miller & Co., Toronto, Sirs.—After using your Yorkshire Cattle Feeder this winter for my stallions, I must say that it is a first-class article, not only as a Feeder but as a regulator of the system. I have not had occasion to use any other medicine for my

swallowing a lump of borax the size of a garden pea, or about three or four grains held in the mouth for ten minutes before singing or speaking. This produces a profuse secretion of saliva or "watering" of the mouth and throat, probably restoring the voice or tone to the dried vocal cords, just as wetting brings back the missing notes to a flute when it is too dry.

CURE FOR HYDROPHOBIA.

A German forest keeper, sixty-two years of age, not wishing to carry to the grave with him an important secret, has published in the *Leipsig Journal* a recipe he has used for fifty years, and which, he says, has saved several men and a great number of animals from a horrible death by hydrophobia. The bite must be bathed as soon as possible with warm vinegar and water, and when this has dried, a few drops of muriatic acid poured upon the wound will destroy the poison of the saliva, and relieve the patient from all present or future danger.

CURE FOR CANCER.

The following recipe for the cure of cancer is furnished by a reliable person:—A piece of sticking plaster was put over the cancer with a circular piece cut out of the centre a little longer than the cancer, so that the cancer and a small circular rim of healthy skin next to it may be exposed then a plaster made of chloride of zinc blood root and wheat flour was spread on a piece of muslin the size of this circular opening, and applied to the cancer for twenty-four hours. On removing it the cancer was found to have been burnt into, and appeared of the color and hardness of an old shoe-sole, and the circular rim outside of it appeared white and parboiled as if scalded by steam. The wound is now dressed, and the cancer came out a hard lump and the place healed up. The plaster killed the cancer so that it sloughed out like dead flesh, and never grows again. You who suffer try it.—P. E. I. *Examiner*.

A Frenchman roasts coffee, grinds it to flour, moistens it slightly, mixes it in twice its weight of powdered white sugar, and then presses it into tablets. One of these tablets can be dissolved at any time in hot or cold water, making at once the very perfection of coffee; and it is claimed that a pound of the berry will go much further by this than by any other preparation of the beverage.

VITALITY OF GRASSHOPPERS.

An Iowa doctor, writing about remarkable grasshoppers that do so much damage in the West, says that in his opinion they come from the lower portion of the British Possessions, and that they are a very hardy insect. It takes quite a breeze to kill them. Immerse one in water for three hours, and he will come to have a better masticative and digestive faculty than ever. They will devour arsenic with the avidity of a modern belle. When their wings are developed, they have a better locomotive power than the old Western Stage Company ever had, and those that are here have at this date got a wing development now of about a quarter of an inch, while the body is about three quarters of an inch in length.

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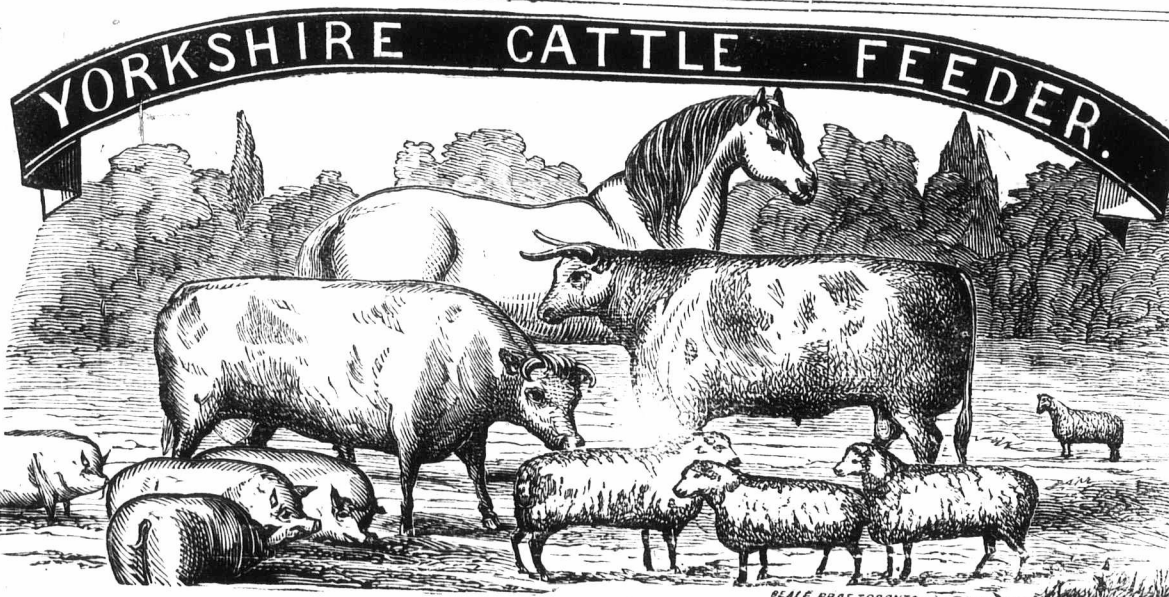
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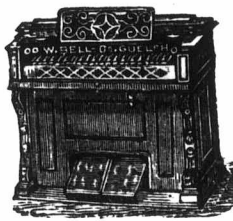
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The attention of farmers and others is called to his superior HORSE TURNIP SEED DRILL, all of iron, sows two rows, and runs the canister with an endless chain instead of friction wheels, there fore is not liable to stop and miss sowing; and by raising a lever the sowing can be stopped at any time, thus preventing the waste of seed when turning at the end of drills. Orders from a distance carefully attended to and satisfaction guaranteed. LEVI COSSITT, Nelson Crescent, Guelph.

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Published by WILLIAM WELD, London, Ont., Canada. The leading agricultural paper of the Dominion. Subscription, \$1 per annum in advance; \$1.25 and all expenses of collecting, in arrears.

ADVERTISING RATES.—The regular rate for ordinary advertisements is twenty cents per line of solid nonpareil for each insertion. Special editorial Notices, 50 cents per line. Condensed advertisements of farm for sale, farm wanted, and stock (single animal) for sale, or wanted, or township show notice, when not exceeding 20 words, will be set for twenty-five cents each, prepaid. One cent and one-half will be charged for each additional word over twenty. These condensed advertisements are arranged under special headings. None others except the four classes mentioned above will be inserted at these rates.

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Established over 34 Years. A SPLENDID STOCK FOR FALL TRADE. No effort will be spared on our part to give the fullest satisfaction to our patrons. GEO. LESLIE & SONS, S&O LESLIE P. O., ONT.

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FOR SHEEP. IT DESTROYS THE TICKS, PROMOTES THE Growth of the wool, and improves the condition of the animal. Sold everywhere in boxes at 35c., 70c. and \$1. A 35 cent box will clean 20 sheep. HUGH MILLER, Agricultural Chemist, Toronto. It may be had at the Agricultural Emporium London, 8 7/4

OCEAN PASSAGE.—Persons intending to take a trip to the Old Country, will find it to their advantage to go by the Steamers of the National Line large, safe and comfortable vessels. Fare low. Apply to F. S. CLARKE, next door to the Advertiser Office, London.

GREAT SALE AT CHISHOLM & CO'S.—Whole winter stock reduced. Now for Bargains at the Striking Clock.

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DROUGHT—CROPS—MARKETS.

DROUGHT.—Want of Rain, want of drink and food for Cattle, thirst. Such are the reports that have for some time reached us from many quarters, indeed from most parts of North America. Wisconsin laments "the terrible drought"; from Illinois and Arkansas the same sound is heard; and New York and Middle, as well as the Western States, echo the report. "More injury is done by the drought than by the chinchbug," "though the crop is entirely destroyed by the chinchbug," is one gloomy report, too much so, we think. "In our country the crops are literally burning up," writes a correspondent. "A dismal account of the drought in Middle and Western Tennessee," writes another. After all, the loud outcry, we believe, is far greater than the injury. Here also we have had a drought almost uninterrupted for several weeks, and though we feel its pressure, and more especially for water and feed for our stock, we can bear it without such an outcry.

CROPS.—This year is called by some of our exchanges "The year of general productiveness." There can, however, be no doubt, that of some products, roots especially, will in consequence of the drought, be a lighter yield than we sometimes have; with potatoes (this is the case); but though the drought may have lessened the number of tons or bushels, this will be compensated by the superior quality of potatoes, as well as of grain. There is more alimentary food in both. It is true a wet season is more detrimental in Britain than in Canada; the grain there is more subject to maling and sprouting, and the potatoes to disease; but here too the quality of grain and other edible products of the soil are superior in a dry season.

MARKETS.—The markets here, are, in a great measure, ruled by the crops and markets of Europe. According to the leading European authorities, the British and Continental harvests of this season will return a yield above the average. The deficiency in England will be much less than last year. England and Switzerland will be the only purchasers, and in Russia, Germany, Austria, and Hungary the yield is good, and generally of good quality; Oats, what few are grown, exceptionally fine, with short, bright straw; winter beans very good, but rather short in stalk; potatoes good, showing little or no disease; turnips, variable; mangolds good. The Mark Lane Express says:—"The fall (in prices) in France have made quite a revolution in prices, and if a cheap loaf means national prosperity, we seem very near its attainment." Our last reports are that "After an almost continuous decline in wheat and flour, amounting to some 20 or 25 per cent., the market, the last week or two has been more settled; with a slight reaction in price, influenced no doubt by a falling off in the supply of last year's product, and the falling in freights to Europe to the lowest point in several years."

LONDON MARKETS.—White Wheat, \$1.00 to \$1.75; Red, \$1.50 to \$1.40; Barley, \$1.40 to \$1.70; Oats, \$1.10 to \$1.12; Peas, \$1 to \$1.20; Rye, \$1 to \$1.02; Butter—Keg and Crock, 24c. to 25c.; Rolls, 25c. to 30c.; Cheese, 10c. to 11 1/2c.; Potatoes, 50c. to 60c.; Wool, 24c to 35c.; Dressed Hogs, 88 to 8.25.

M. R. HETHAWAY, Agent for Appleton's American Encyclopaedia, called at our office the other day. He is taking orders for this very useful standard work. We have 7 volumes of it in our office, the whole number will not be out for nearly a year. They cost from \$8 to \$12; they may be seen in our office by any one wishing to procure them.

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VOL. X. { WITH

New Seed The Scott wheat favorable from all who believe we have increased hundreds of thousands a single instance over 500 dollars than he could from a single bushel. We can also cite many instances where the yield has raised between more from this variety than of the other varieties. We have not said in its favor.

STONE'S WHITE This wheat has produced more than we were afraid when it was first introduced to us that it would not be a success. We are glad no one lost much money in our office.

TWO NEW VARIETIES They have been forwarded from the best parts of Canada. The heads are long, the chaff is red and the grains are rather large and apart as the Rio de Janeiro wheats. The grain is short and plump. They have been raised from a field of potatoes. The other variety is a new variety having a red chaff and a large head. Its appearance is similar to the Mummy variety of the East Indies. In a letter a few years ago from Canada.

We would like to see many of our readers' favorite wheats. If you could know anything about them, please send them to us. We shall be glad to hear about them in the spring. We shall be glad to hear about them in the spring. We shall be glad to hear about them in the spring.

The Oil MONOPOLY, EXTORTION Farmers, it is high time to protect our interest. Since the late war, the price of oil has risen so high that it is no longer profitable to produce it. The facts are plain. Our burning oil is sold at 10 cents per gallon. The producers and refiners are getting 5 to 30 cents per gallon. The supply of oil is limited.

GEORGE B. HARRIS & CO.'S LAND OFFICE, LONDON, - - ONTARIO. IMPROVED FARMS AND WILD LANDS FOR SALE IN ALL THE WESTERN COUNTIES. SEE FORMER LIST IN SEPTEMBER ISSUE OF THIS PAPER.

Over 200 Improved farms for sale to Select from—particulars of some we are not at liberty to publish. Information given on application. Good and first-class Water and Steam Power Grist Mills for sale, in Middlesex, Elgin, Kent and Norfolk. Also a few desirable Country Residences, with from ten to thirty acres of land. Trust Funds for investment on Real Estate and Mortgages bought.

BRUCE. 102-184, Township of Kinloss.—150 acres, 80 acres improved; timber, beech and maple; soil, clay loam; two good wells; small orchard; frame and log house; bank barn and other barn and sheds; stone under; drains; good neighborhood; churches and schools 1 1/2 miles; market, 6 miles. Price, \$3,000; terms easy.

ELGIN. 86-132, Township of Bayham.—50 acres wild land. Price, \$1,025; one-third cash, balance in three annual payments. 101-183, Township of Aldboro.—120 acres—about 70 acres clear; well watered, a creek running through the farm; a little broken; timber mostly beech and maple; large comfortable frame house in fair order; good barn; soil, clay loam. Price, \$3,000 cash, or \$3,500 on time. 100-182, Township of Aldboro.—200 acres—about 130 acres clear; balance timber, beech and maple; good orchard, grafted fruit; clay loam; well watered; well fenced; good, new and large frame house; barns,

sheds and stables, good; churches and schools close; village 1/2 mile; cheese factory in the village. Price, \$9,000.

ESSEX. 87-132, Township of Colchester.—100 acres; wild lands; heavily timbered. Price, \$20 an acre. 88-135, Township of Colchester.—100 acres; wild lands; heavily timbered. Price, \$20 an acre. 81-90, Township of West Tilbury.—100 acres; wild lands. Price, \$800—one-quarter cash, balance on time at 7 per cent.

KENT. 92-174, Township of Sombra.—100 acres, 70 acres improved; orchard, 400 fruit trees; soil, clay loam; high and dry; churches and schools 1/2 mile; log house; Wallaceburg 2 miles; Chatham 16 miles. This farm fronts on the River Sydenham; steamboats constantly passing. Price, \$4,000.

LAMBTON. 82-124, Township of Brooke.—200 acres; wild lands; lot 1 on 5th. 83-125, Township of Brooke.—100 acres; wild lands; west 1/2 lot 5 on 5th. 84-126, Township of Brooke.—200 acres; wild lands; lot 6th on 5th. 89-171, Township of Moore.—100 acres, 68 acres improved; balance best heavy timber; good orchard large and nearly new frame house; barn and sheds; black clay loam; good neighborhood; churches and schools close. Price, \$4,000.

MIDDLESEX. 97-179, Township of Metcalfe.—220 acres, 180 acres improved; beech and maple; a fine orchard of grafted fruit, about ten acres; clay and sandy loam; well fenced; never falling creek; large frame house in bad order; good and extensive out-buildings; brick dairy; cheese factory on the farm; market town and railway station 2 1/2 miles; churches and schools near. Price,

\$9,000—\$4,000 cash, balance on time to suit purchaser. This is a first-class dairy farm. 98-180, Township of Metcalfe.—80 acres, 60 acres improved; beech and maple; a small orchard; clay and sandy loam; good frame house, 26x36; good barn, 35x50; root house; 2 creeks; market town and railway station 2 1/2 miles; churches and schools close. This adjoins the above farm. Price, \$2500.—\$1,500 cash, balance in two years. 103-185, Township of Caradoc.—100 acres; 80 acres improved. Timber oak, ash, cherry and basswood. Soil sandy loam. Comfortable house, brick and frame. Good out-buildings of all kinds; good root house. A really good homestead and farm, within 1 1/2 miles of Strathroy. Half cash; balance payable in from 5 to 10 years, at 6 1/2 per cent.

PERTH. 91-173, Township of Blanchard.—100 acres, 80 acres improved; balance heavy timber, mostly maple; about two acres of orchard, grafted fruit; clay loam; two good wells; well fenced; hewed log house with weather boards outside, inside lath and plaster, 7 rooms, good stone cellar; frame barn; log stable and cow sheds; churches and schools close; St. Mary's four miles. Price, \$6,000, portion on time.