FARMER'S ADVOCATE

AND HOME MAGAZINE.

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THE FARMER'S ADVOCATE & HOME MAGAZINE

WILLIAM WELD, EDITOR AND PROPRIETOR.

THE LEADING AGRICULTURAL JOURNAL PUBLISHED IN THE DOMINION.

The FARMER'S ADVOCATE is published on or about the 1st of each month. Is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

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Our Monthly Prize Essays.

CONDITIONS OF COMPETITION.

1.—No award will be made unless one essay at least comes up to the standard for publication.

2.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling, our object being to encourage farmers who have enjoyed few educational advantages.

3.—Should one or more essays, in addition to the one receiving the first prize, present a different view of the question, a second prize will be awarded, but the payment will be in agricultural books. First prize essayists may choose books or money, or part of both. Selections of books from our advertised list must be sent in not later than the 15th of the month in which the essays appear. Second prize essayists may order books for any amount not exceeding $3.00, but no balance will be remitted in cash. When first prize essayists mention nothing about books, we will remit the money.

A prize of $5 for the best original essay on *The Best Method for the Registration of Stock* has been awarded to Ernest L. Black, Amherst, N. S.

A prize of $5 will be given for the best original essay on *How can Farmers Best Protect Themselves Against Combines.* Essays to be handed in not later than June 15.

A prize of $5 will be given for the best original essay on *Is Sheep Raising Profitable in Canada, and What are the Future Prospects?* Essays to be handed in not later than July 15th.

Examine your Address Label and see that it reads "89." If you have not remitted for this year, please do so now.

On the Wing.

VICTORIA, THE CAPITAL OF BRITISH COLUMBIA.

(Continued from May.)

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We will for the present step from Assiniboia, and leave the Rockies for some future remarks. We do so because we are much pleased with what we have seen, and the grandeur of the prospect before us. Victoria was formerly an old Hudson Bay station, probably the most important one. It is an old fashioned town; the inhabitants have not until recently been awakened by the whistle of the locomotive. Its advantages are but comparatively little known, and consist of the following: It has a beautiful and spacious rock-bound harbor. The summer climate is the most delightful of any on the Pacific Coast. The earthquakes that frequently shake the houses in California and other southern points are unknown here. The fearful tornadoes and thunder storms are drawn from this place by the high hills, both on the north and south of it, and it has not the continued rain so detrimental to progress and comfort in the northern part of the Island, nor the oppressive, debilitating heat of the southern coast. The beauty of its semi-tropical trees, shrubs, plants and flowers; its handsome fruits, and the peaceful, quiet habits of its inhabitants, are such that many who desire quiet, rest and repose, will erect their summer residences here as soon as its advantages become known, especially as it is now found necessary for the health of many of the inhabitants in the sunny south to leave their residences for a time each year and go to cooler latitudes. Although the temperature is warm and sometimes hot in the day time, it is always so cool at night that a slight covering is comfortable.

We were so much pleased with this place that we had the accompanying engraving made to convey to you ideas, that our pen cannot depict. Just beyond the bridge, partly concealed by the trees, are the parliament buildings. In the distance may be seen the approaching steamer from Australia. Yonder are forts guarding the entrance to Esquimault harbor, which is hidden from view in this illustration by the foliage and hills. In that beautiful harbor are lying the floating fortresses of our nation, with their thick coating of steel armor, carrying monster guns and steel shot weighing hundreds of pounds. There the marines are practicing with their torpedoes. Recently an immense raft was made of the large Douglas pines, crossed and recrossed, which were sent flying high in the air and into fragments by their explosives. Here the subtle torpedo boats are stored ready for use.

The Canada Pacific R. R., a road of which every Briton ought to be proud, being the longest in the world under one company, surpassing in luxuriance of its equipment, and the grandeur of its mountain scenery, any railroad on this continent, connecting Vancouver by rail, and Victoria by rail and boat with our forts and ports at Halifax and Quebec, thence onward to Great Britain, thence from British port to British port around the world.

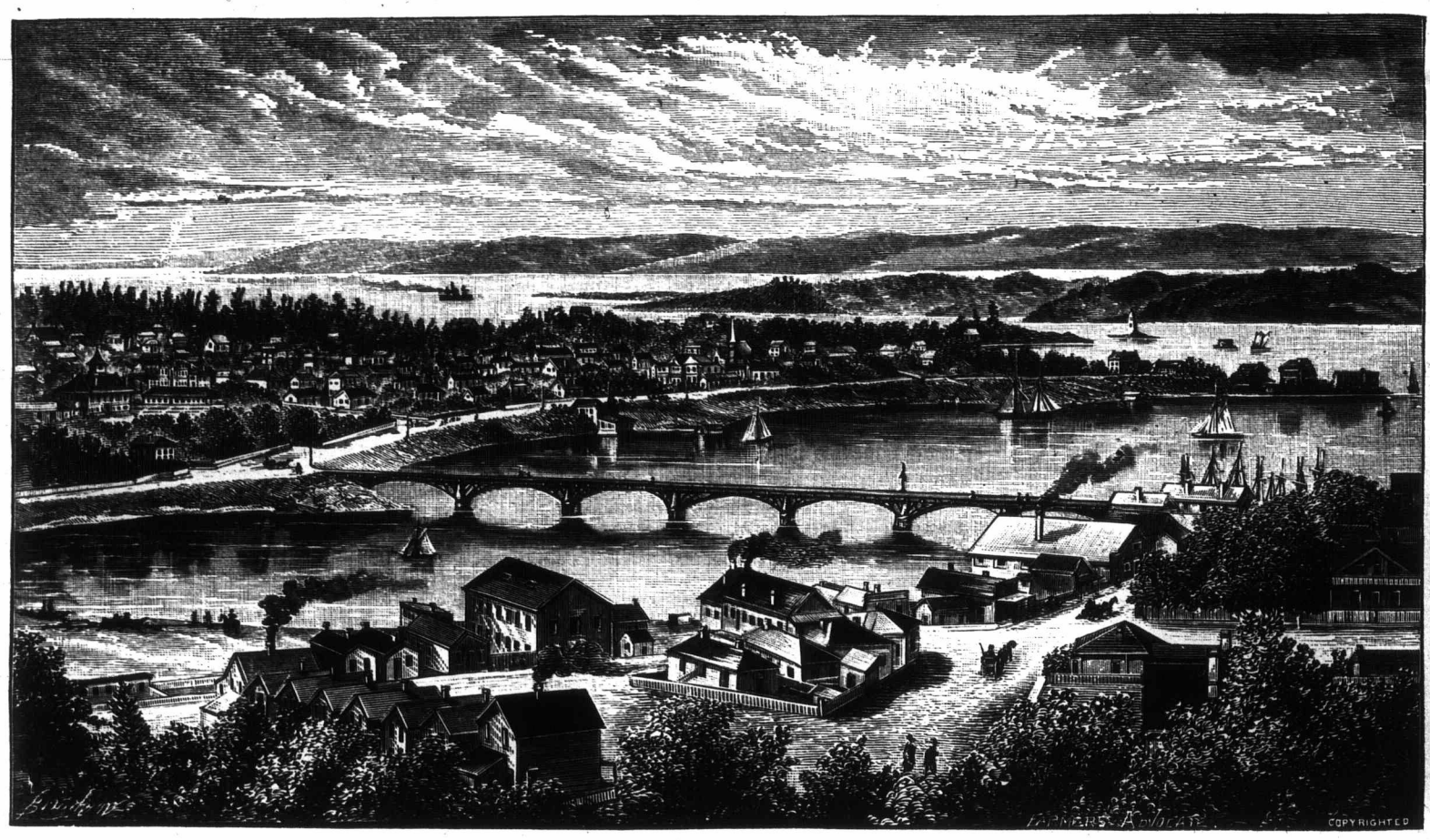
We are at first almost enchanted in our walks and drives. It is autumn, the honeysuckle, the rose and the ivy vie with each other in taking possession of the bowers. The holly, with its scarlet berries, vies with the cypress and laurestinas in beautifying the lawns; the gladiolus, the dahlias and chrysanthemums attain greater perfection here than any place we have seen them, and rival all other floral productions in decorating the gardens and plots. Hanging even over the streets in some places may be seen large and beautiful looking pears and apples. Running out from under the large ferns, in the suburbs of the city, are seen the English pheasant in its wild state, which have increased so much as to become a nuisance, and the past season permission has been given to anyone to shoot the male birds. They are the result of an importation made a few years ago, and turned loose in this vicinity. Deer are so plentiful as to be brought in on farmers' wagons from twenty to thirty miles around. Large numbers of fawns were seen hanging in the butcher shops. Grouse and venison have been so profusely supplied at nearly every meal we partook off during our stay of one week, that we in future would give preference to a good piece of Ontario beef or mutton.

We have passed through the clouds and looked down on them from clear atmosphere above—this was at Mt. Washington, in New Hampshire. We have ascended to the top of St. Paul's, in London, and could hardly see anything but smoke. We have seen Paris at one view from the top of the Arch d'Triumph. We have been at the tops of the capitols at Washington and Ottawa. But at no point or time have we experienced greater pleasure at the sight than when standing on Church Hill, Victoria. Here the steamers may be seen going and returning from Australia and other southern, northern and western stations.

Despite the beauties of the scenery, its evergreens and flowers, its mercantile location and beautiful summer climate, etc., Victoria has its disadvantages; the principal are in our estimation the soil and climate, neither being as well adapted to agriculture as our eastern Provinces are. There is comparatively very little good agricultural land in British Columbia. When it is wooded it is extremely expensive to clear of timber and

roots, and when cleared it will not produce equal to our Ontario lands. Irrigation must be resorted to to ensure even a green blade of grass through many months in some parts, while in others the rains in the winter, spring and summer are most disagreeable and prevent agricultural operations being pursued with either the pleasure or profit they are in many locations we have visited.

There is a great contrast in the appearance of the inhabitants of this the western slope, as it is called, to those of the east. Here the Chinaman is the housemaid, and calm, mild, submissive and obedient as they may be, they are so useful and servants are so scarce, that they have a power and influence that has shown itself. They do all the washing—laundries are everywhere. They are also good cooks, and do all the inside and outside work of many a house, such as cooking, sweeping and gardening, and do all



VICTORIA, THE CAPITAL OF BRITISH COLUMBIA.

astonishingly well. The inhabitants attempted to levy a special tax on Chinamen; they struck; washing and cooking stopped, and in a few days the Chinese conquered.

The American, the Scotchman, the Irishman, the Canadian, the Negro, the Englishman, the Indian, the German, the Chinaman, the Italian, and the Spaniard, were all seen working in the same ditch. Imagine the advantage of this as a leveling system, which tends to blend all as one people, and all learn to speak one language.

Sudden squalls have fearfuly shaken the British nation. For centuries past the ballast and helmsman have always righted her, and both appear as sound as ever despite her foes. One's worst enemies are apt to be those of one's own household. Yes, and when we compare the hungry soil, the parched land, the miserable-looking, half-starved hogs, dogs and cattle we saw when passing through Tennessee, part of Kentucky, Arkansas and Alabama; when we depict the poor miserable-looking homesteads, the ragged, dirty, sickly appearance of the "white trash," as many of the inhabitants are termed; when we know that the majority of the farmers there neither own their land, nor even the seed sown, where grass and wheat will not grow, and compare the healthy appearance, the well clad, hopeful independent spirit of the owners and tillers of the soil in our North-west Territories, and the unlimited extent of unoccupied rich fertile lands that will produce grain and grass—it is almost impossible to imagine the superiority of spirit and physique of these two classes. Crops of cotton, tobacco and oranges are very pleasing to the eye, but afford comparatively a poor substitute for beef and flour. The sunny south may be all very well to visit in our winter season, but the debilitating effects of continued residence takes the energy and spirit out of white settlers, thousands of whom have been drawn there by the laudatory, one-sided statements of interested agents. Our North-west will now progress faster than any part of this continent. Seventeen thousand people are now seeking work and finding none in Boston alone, and that is one of the wealthiest cities in the United States, and only a specimen of others. The resources of Canada are not sufficiently known, but the tide of population is now turning northward, and will rapidly increase.

We took the Victoria and Ninimo railroad to Wellington, about 60 miles north. This is on Vancouver's Island, and the furthest extent to which this railroad runs is the centre of the present coal operations. This was a most pleasing journey, the scenery being very picturesque and grand. Many pretty spots were selected for the railroad stations. Ninimo being the most important, as it is where the principal output of coal and lumber is shipped. It is a very pretty locality. Several vessels were in the port being loaded with their valuable cargoes of coal and lumber. Near here some of the trees are 300 feet high. On this line we saw more fine timber than we had seen on the C. P. R., perhaps we might have passed the best in the night. The Douglas firs and the pines here appear to grow in groups, or like families; where there is one tall, fine tree, it is almost sure to have a companion nearly as fine, pretty close to it, as if mated; then there will often be a group of from two or three to twelve or thirteen good ones, but smaller than the main trees. Then a considerable space between these groups, only sparcely covered with smaller stragling trees. These family clumps are very different from the growth of timber in our Eastern provinces, where it grows about as evenly as grass over the ground, different varieties thriving on soils that are best adapted to them, but there is nothing of this family feature to be seen in our woods. A few miles travel make a wonderful difference in the scenery, timber, etc. A few miles from Victoria, in some low localities, the moss was seen hanging in festoons from the limbs of the trees, as in New Orleans and vicinity, and here the red wood tree flourishes luxuriantly. This is an evergreen, having thick, broad leaves. The bark of the tree appears to shell off annually, leaving the under bark red. There are a few small farms to be seen in the low valleys that are found on this line. The climate and soil make it a struggle for agriculturists to make much here. A few farmers exist, but any emigration agent or Government that attempts to move the agriculturist from our Eastern Provinces to British Columbia for the sake of getting the little money or property they have ought to be tarred and feathered; and still we have such unprincipled persons in Government employ, and

some of our Government officials know it. We could depict fearful results from injudicious movements. Despite these remarks, even at my age, I would not be afraid of getting a living in an agricultural line in British Co'umbia. There are some here that are making money rapidly. The greatest interest has been taken in mining, lumbering and fishing. Gold mining was the most remunerative. Now the coal mines are developed; they exceed that of the coveted metal, and those that either work in the coal mines or in the counting houses connected with the mines, are getting more gold than those that are digging for it.

Having just passed through a portion of our grain and stock producing west, we saw the over-flowing granaries and herds of fat cattle, and know that the necessaries of life are more accessible to a larger number of persons here than in any other part of the wor'd; where we know of more millions of acres of available fertile land to be given away, and know that emigration is turning from the sunny south to the fertile, beef and grain producing north; even American farmers find that bread, beef and labor are better than lasitude, rags and bananas. The great North-west is destined to be filled with millions of inhabitants; towns and cities must spring up. When we bring before our view the impoverished B.A.'s and M.D.'s, and know the close, pinching economy practiced to keep up an outward appearance by thousands of the middle classes in Europe; when we bring to our mind those poor, half-starved thousands in England, Ireland and Scotland—

"Oh wad some power the giftie gie us,"
If those deserving could but see us.

The accompanying illustration (given in a former issue), was intended to show the attempt to unite Great Britain and the colonies in a stronger bond of union. The plan of the hub represents the parties desirous of uniting the nation. As a nation of honor, liberty and equitable laws, we know of none to surpass her, despite the corruption and oppressiveness that have been exposed Let us all unite, hope and work for her unity, and by veracity and justice endeavor to increase the growing amity of our sister the United States, and with her form a unity that may be a blessing to ourselves and those connected with us. Will you, who have not as yet aided us, use your influence, to strengthen, bind, and put on the tire?

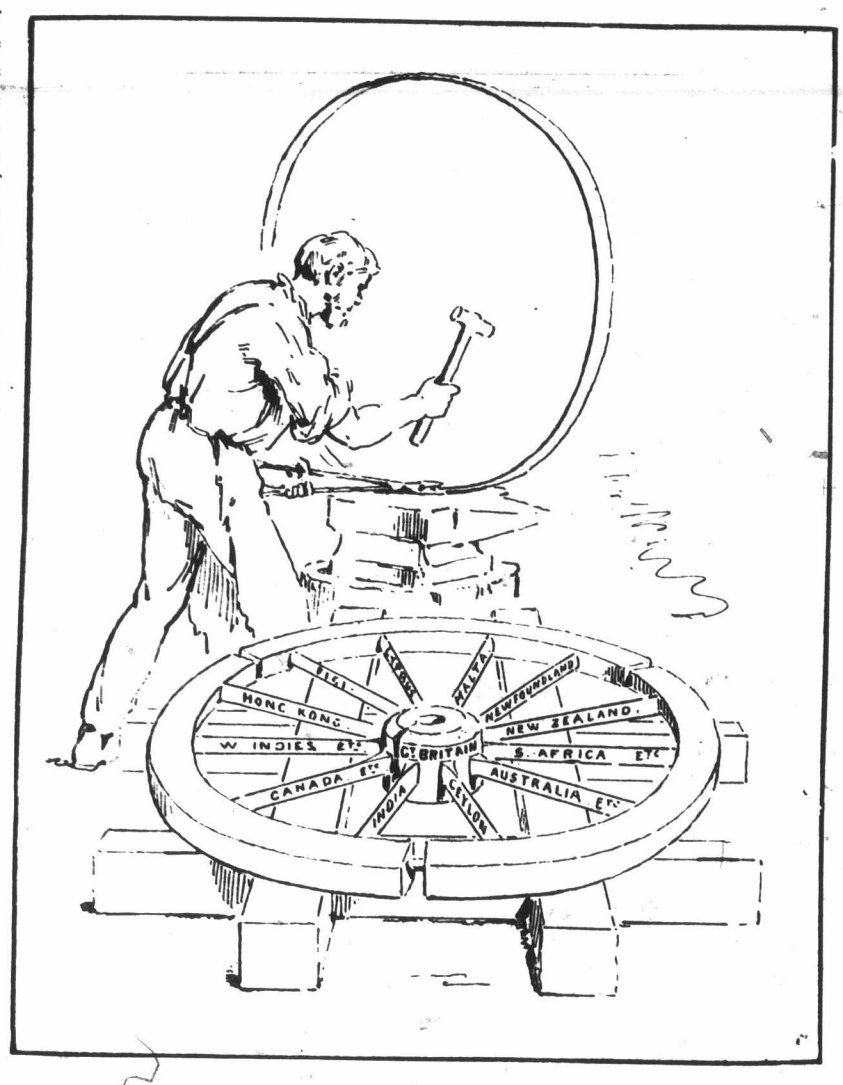
[TO BE CONTINUED.]

The New York Assembly passed the Thompson Bill, fixing a bounty of two cents on every English sparrow killed.

The cultivation of dandelions for "greens" is getting to be quite an industry. The markets are fairly well supplied this year, but more could have been sold easily. The prices now are 15 and 20 cents per quart.

New Canadian Invention.

Your correspondent had the pleasure the other day of inspecting a model of the "Romaine Steam Farmer." The public are perhaps not generally aware that Mr. Romaine has been diligently working out an idea for the past thirty-six years, which now, if ultimately successful, promises to revolutionize farming. It is a machine that is to perform all the work on the farm. It is to till the soil, sow the grain, reap and thresh the harvest; and all without the use of horses I was rather staggered when I heard of a machine that was to do all that. Of course, I am not yet prepared to say that it will do all that, nor could any one, not a machinist, give an opinion as to its merits, but practical machinists have given it as their opinion that there is no mechanical reason why it should not succeed.



The peculiar feature of the machine is that it does not "plow," that is, it does not overturn or invert the soil. Mr. Romaine went to a good deal of trouble to explain his invention. It will be a large machine, of some twelve or thirteen tons, and the probable cost will be $10,000. It will travel over the land at the rate of between one and two miles an hour, taking a "swath" of about twenty feet. It is supported by large wheels at the sides, fifteen inches wide. A track the width of the wheel will not be plowed, so that it will travel over the same beaten track every time. The plows, or rather the cultivating apparatus—for it has no plows—are arranged in the centre, between the driving wheels, and consist of a series of vertical, rotating spindles, to which are attached sharp steel points, which penetrate the soil to the depth of fifteen or even twenty inches, if required. These pulverizers rotate very rapidly, and so effectually stir up and pulverize the soil as to leave it in a far better condition to receive the seed than can possibly be done by the present method. In the fall the sod is to be broken up by a different set of teeth, and in the spring, by going only once over the ground, the land will be cultivated and the seed sown, and left in a better condition than by going over it any number of times by plow and harrow. But the inventor was not satisfied with that, and the machine has been made so that the crops can be cultivated while growing, keeping down weeds at the same time. When the crop is ripe the harvesting gear is attached, and the crop cut and bound, and thus all done without a man or beast having set a foot upon the land, the workmen riding on the machine. The threshing will also be done by the machine. Mr. Romaine says the machine will cultivate 2,000 acres of crop each year, and the expenses will be only $3.00 an acre. The principle of pulverizing or stirring the soil instead of turning it over, Mr. Romaine claims, is the great advantage of the system. He thoroughly satisfied himself that this was the true method of cultivation, and secured opinions to this effect from eminent agriculturists in the Old Country. Of course, the Western prairies will be the best field for the machine. Whether it will fulfil its mission remains to be seen. All whom I have talked with on the subject seem to agree that if it will do all that he claims for it, it will be one of the greatest inventions of the age, certainly, the greatest in the way of agricultural implements.

Mr. Romaine goes to the Glasgow Exhibition in a few days, where he will exhibit it, and endeavor while there to raise capital for its manufacture.

Mr. Lovell on the Thistle.

Mr. Lovell, in another column, has dealt very thoroughly with the thistle question, which deserves more attention and discussion than it receives. We have seen many fields throughout Ontario, when the yield has been lessened from one-quarter to three-quarters by this persistent enemy.

Too great stress can hardly by laid on early fall cultivation of all cropped land not seeded down. A very successful farmer of our acquaintance has cleared a large farm of thistles by gang-plowing as soon as the crop is taken off, then harrowing thoroughly, at least twice, as soon as plowed, before the soil becomes at all packed, the dryer the soil (as long as it will work), the better. When the land is very thistley we have found great benefit by going over it as soon as harrowed with a spring tooth cultivator, or chisel tooth harrow. When gang plowing see that all the land is cut clean, this is imperative, no plow should be used that will not do this. After harrowing and cultivating,

the land may be left for a few weeks, but as soon as the thistles *begin* to *show*, and *while* the *warm dry weather* of the fall *continues*, a second plowing should be given which should be as deep as the quality and condition of the land will admit. Some excellent farmers harrow and cultivate after this plowing, others leave it in the rough state claiming that it works better in the spring. No plow shou'd be used either in this or the first plowing which does not *cut* the *ground clean* and turn the thistle roots well on top. Early and thorough plowing, and *plenty of harrowing* will rid any farm of thistles; if all are kept cut in the fence corners and pastures. We have known farmers who worked their fields well but neglected their fence corners, or sides, the result was, enough thistles grew here to keep the farm more or less seeded. Keep all weeds out of the fence corners; if you can't cut them yourself, hire a man to do it, it will pay one hundred per cent. Where corners cannot be mowed, a long handled cycle will be found very handy for this purpose. With this tool the thistles and weeds can be cut very close to the ground, and much more rapidly than can be done by a spud. We have found this tool very useful to cut weeds in grain, one man with a long handled cycle will cut as many thistles out of grain (and do as little damage), as three men will do with spuds. No matter how thick the thistles are they should all be cut out of grain before it begins to teller, and out of peas before they begin to run.

We have cleaned some very thickly fields in one season and raised a crop at the same time, by giving the fall treatment spoken of above. The next spring sowing to roots, generally turnips, plowing twice before sowing, the last time very deeply, harrowing, and when necessary cultivating, after each plowing (where carrots or mangolds are grown only one spring plowing can be given), time should be given between each plowing to let the weeds start, and sometimes between the harrowings. After the field is drilled and seed sown, cultivate as frequently as weeds appear. Do not let any live above ground; and the next year if the fence corners were kept clean no thistles will be seen, no matter how bad they were the year before. The frequent cultivation will considerably increase the crop grown.—[A. E.

Revised Statutes.

We have received the "Revised Statutes of Ontario, 1887, being a consolidation of the revised statutes of Ontario, 1887, with the subsequent public general acts of the Legislature of Ontario," they are two handsomely bound volumes, containing 2,784 pages. The Government have done wisely to put the laws of the Province in so compact and comprehensive a shape.

In response to inquiries on tanning skins, we give the following directions: Take two parts alum and one part saltpetre; pulverize finely; mix and rub in on flesh side of skin, or simply sprinkle on it. Then put away for twenty four hours, when the mixture may be rubbed off.

The import trade in frozen meats to Europe amounted to 172,023 cases last year from Australia, and 42-969 cases from New Zealand, against 61,352 from the former in 1886, and 17,594 from the latter. In 1883, however, there were 275,881 cases from the larger island, and 51,651 from the smaller.

Who Should Emigrate?

The Dominion was at first occupied by hardy pioneers from Europe, men and women with strong hands and kind, generous hearts, who through long years of toil and hardship laid the foundation of our now prosperous country, the area of which is 3,500,000 square miles, much of which is very fertile and capable of supporting comfortably an immense population. All who come to Canada and wish to be prosperous, must work; the climate, the country and our people demand it. Those without means, who wish to live a lazy, listless life, should not come here, but a splendid field is open to the energetic, intelligent, honest farm servants of either sex. Men and women who know how, and are willing to work—those who understand farm work in Great Britain—will soon become good workmen here if they are in earnest. We know many young men who landed in Canada with little or no means, ten or fifteen years ago, who are well-to-do farmers now. All depends on their honesty, energy and skill. Those who are doing fairly well in Europe should stay where they are. Old and middle-aged people should be very cautious about coming unless they bring money with them. And even then we would advise them to stay in the older provinces. To all who come with money, we would say, learn the ways of the country before you invest. Caution in this matter has saved many a man from poverty. Many who have come without taking this precaution have lost all they possessed. The Dominion requires thousands of honest men and women who understand agricultural pursuits. Those having capital will do best, other things being equal; but all who have strong and willing hands will certainly do well. We do not advise tradesmen or mechanics to emigrate unless they cannot get work at home, or have friends here to assist them in obtaining situations on their arrival. Farmers will not hire men who have not previously worked on farms, and are not skilled workmen. If the Scotch crofters now emigrating are anything like our early Scotch settlers they are sure to succeed; Scotchmen, as a class, succeed as well or better than any others, but to be successful they must have the same qualifications required by all others. Those who have capital to invest will find broad and profitable fields here. Interest is high and money wanted, but caution is needed when investing.

Hungarian Grass or Millet.

Where the fall wheat is killed out, an abundance of rich nutritious hay can be raised by plowing and thoroughly working the land, reducing it to a very fine friable condition, and sowing to Hungarian Grass or Millet. The former is finer and matures sooner than the latter, and is preferred by many. The Millet though coarser and later gives larger yields, perhaps not quite as good in quality, though the difference is not great; both should be cut when in bloom before any seed is formed. If properly cured the hay is very nutritious, great care should be taken in curing it. If it musts or is exposed to rains after being cut it is almost worthless. Wilt the swath the same as clover and make in cock; the sooner it is got in condition to cock the better. See that it is in good order when put in the mow. Where the land is in good condition one peck will be enough per acre, and in no case would we sow more than half a bushel.

Farmers' Clubs.

Dominion Farmers' Council.

[The Dominion Farmers' Council meets in the city of London, Ont., on the third Thursday of every month, at 1 o'clock p. m. All communications should be addressed to the Secretary, A. LEHMANN, LONDON, ONT. This Council has now on hand pamphlets containing its Constitution and By-laws, with an account of its origin, objects, etc., also a form of Constitution and By-laws suitable for Farmers' Clubs, which will, on application to the Secretary, be distributed free to all parties having in contemplation the organization of clubs.]

The regular monthly meeting of the DOMINION FARMERS' COUNCIL was held on the 17th ult., President Anderson in the chair.

THE POULTRY INDUSTRY OF CANADA.

The following paper, for which a vote of thanks was tendered the essayist, was read by F. W. Hodson:—

The poultry on the average Canadian farm does not receive the attention they should. A great many farmers make no provision in the way of shelter—but the fowls are left to shift for themselves as best they can. Such owners are continually complaining that the hens are a nuisance, they will roost on the binder, the buggy, in the barn, in fact are everywhere where they ought not to be. Another class give some poor, miserable, unused buildings to the hens and think they ought to be happy and profitable in such a house. In both instances farmers declare "hens don't pay," and we partly agree with them. They do not under such circumstances; but give them a good, warm, light house, which is always kept neat and clean; a good run, and lots of sunshine. Do not overcrowd, feed properly, keep the breed best adapted to your surroundings, and there is nothing in Canadian agriculture which will pay better. Until quite recently the care of poultry in America devolved principally on the women and children of our farms, but within the last few years a limited number of enterprising men have turned their attention to this very important industry, and have improved and advanced it very much. Few of our people have any adequate idea of the magnitude of this somewhat despised "chicken business," as some are disposed to call it. Let us look for a moment at our exports, and we find that 12,995,226 dozens of eggs were sent from Canada last year, for which were received $1,827.143, to which must be added $221,971 for poultry, making a total of $2,049,116. I find by comparison that the exported products of our poultry is more than three times greater than the value of our oats sent abroad; nearly equal to two-fifths of our barley; our pease exceeds our poultry less than half a million; our wheat is somewhat more than twice as great. Poultry exports exceed the value of our swine exports over two million dollars, our sheep by nearly half a million, and the butter by over one million. As we consider the astonishing revenue derived from the feathered tribe, let us remember that it has been given to us by much neglected and abused objects. The farmer who gives very close attention to his barley, pease, sheep and hogs pays no attention to his hens, generously giving them the privilege of roosting in the apple trees or some worse place, Our governments, when granting tens of thousands to other agricultural purposes, give but a few hundred a year for the benefit of poultry, and our agricultural journals have paid but little attention to this department of the farm, chiefly because "hen literature" is not generally appre-

ciated as it should be. Yet despite all these difficulties the energetic egg producers have made the handsome advance in export value of nearly $200,000 over last year. Grand as the sum total is, I, for one, feel sure by giving this department the care and attention which it deserves, it could be doubled in a very few years, and the profits more than doubled.

At certain times of the year the price of eggs in some sections is lower than it should be. This has in some cases been attributed to the egg combine or the local combination of the dealers. Farmers and country merchants by closely watching the New York, Montreal, and Toronto markets (deducting therefrom the R. R. charges to these markets and five per cent. for selling), can easily calculate whether they are getting the proper price or not. In case the dealers are obstinate, a little united action on the part of the farmers, will quickly bring them to time. Combines are the order of the day, but the farmer is king of the situation if he will join hands with his brethern, and unitedly fight for his rights, he is bound to conquer, but it is an imperative necessity that he reads, thinks, and discuss all the details of his business freely. The mode of feeding and managing the different kinds of poultry is too wide a subject for me to undertake in this essay. I will therefore pass on to the varieties, mentioning only those which I consider most valuable. From among the larger breeds I would select either the Light or Dark Brahmas, according to the taste of the individual. I prefer the light variety because of their color, I think, too, their feathers are generally more fluffy or downy, and therefore more desirable; they are larger than the dark variety, and the pullets mature earlier, though they are no better layers if as good. Both breeds are alike hardy, excellent winter layers and good mothers. They will lay sooner after incubating than any other breed with which I am acquainted, except the Langshans. In speaking of the Brahmas, Mr. John Pares, a recognized English authority, says :—"When properly cared for the pullets will lay when six months old, and usually produce 30 to 40 eggs before they want to sit but I have repeatedly known pullets to begin to lay in the autumn and never stop until the next spring. I have kept several breeds such as the Dorkings, Spanish and Hamburgs, but to farmers I always recommend the Brahmas." Mr. Wright, in his excellent work on poultry, speaks very highly of their hardiness, early and rapid growth, and their excellent laying qualities, and says "on the whole there is no more profitable fowls than the Brahmas."

Closely allied to the above, in valuable qualities, is the Langshan, a beautiful black bird, not quite as large as the Brahma, generally speaking, nor as hardy when young, but perhaps surpassing them as a winter layer and the habit of laying at a very early age.

Among the Games the Black Breasted Reds are the best layers, as such they rank in the very first class. The eggs and birds are small but excell all other kinds in flavor. They eat very little; as mothers they are unsurpassed, but for farm use I consider them too small and altogether too vicious.

The Dorkings are popular with English people everywhere. They are fairly good layers, and as table fowls they lead all others, being ready to kill from the time they are large enough until mature, always yielding an abundance of meat of the best quality. I find them moderately hardy and very profitable as farmer's birds, but when young they are not as hardy as some of the other breeds, and should not be hatched early, unless we are prepared to make them very comfortable. Hatched after the middle of May they succeed better with less care than any other breed I have ever handled. There is no sort, however, that will degenerate so fast by inbreeding or careless, slipshod handling; generally speaking, they are not winter layers, still I have found them very fair in this respect. I find that farmers who have had experience with this breed rarely exchange them for any other.

The Plymouth Rocks are first-class birds in all respects, very suitable for the farmyard. They partake to a certain extent of the good qualities of both Brahma and Dorking and are great favorites with many.

Houdans have the table qualities of the Dorkings with less offal; are more hardy when young, are non-sitters, and are excellent layers in the summer season, but lay little in winter. In size they should, and in many specimens do, equal the Dorkings, but in a large collection numerous small ones will be found.

The Spanish family, which embrace White Faced Black Spanish Minorcas (white and black), Andalusians, and some minor kinds, are all grand summer layers of large white eggs, but are not a good table bird.

The Leghorns resemble the last mentioned, but are smaller and hardier. As egg producers they cannot be excelled. They are also non-sitters.

The Hamburgs are small, hardy, non-sitting fowls, and wonderful layers, perhaps excelling any other variety in this respect except Leghorns, but are even more hardy than they. Of late there have been several new breeds introduced, chief among them are the Wyandottes, which are good as layers and for the table.

In selecting a kind get the one best adapted to your requirements. There are so many good varieties the most fastidious can gratify his tastes, and still have a profitable sort. Always remember that there are different families in each of the kinds, which are better than their fellows, select only from these for breeding purposes. Kill off all birds before they are two years old. Study the habits of your fowls and their requirements. Adopt the feed and management which is most profitable. Breed some pure bred variety of a good strain. Generally speaking it is better to keep only one variety and attend to them well. Stick to the old and well tried kinds; be exceedingly shy of the so-called new and much puffed breeds, which are frequently old kinds reintroduced. Do not go into poultry raising on a large scale until you thoroughly understand the business and have found it profitable when conducting a small yard, then you may increase gradually as your profits warrant.

DISCUSSION.

After the conclusion of the paper a large number of members expressed their astonishment at the facts these figures revealed, especially at the difference in the dimensions of the export of hogs and that of the poultry industry. To this Mr. Hodson replied that under the heading of hogs he had not included pork or other products of the swine industry, but simply the living swine exported; but that the poultry and egg exports still exceeded that of the entire swine industry by over $1,000,000. Prompted by the remarks of some members, who said that they had kept an account of their poultry business and had not found it profitable when eggs were selling at 12c. per dozen, Mr. Bartlett said that these gentlemen had probably not managed affairs properly; perhaps they had fed them corn instead of buckwheat, wheat, or oats (this they admitted). These latter foods were, in their order named, those that could be most economically fed to fowl. He had found corn to have a bad effect on the male birds, and the eggs produced by the females fed on this food were not so abundant and did not hatch so well as when the other foods had been fed. Peas, fed alone, were also not a very desirable food. In feeding buckwheat great care had to be exercised not to feed too much of it, for they were very fond of it. If too much of it was fed the fowls became too fat and ceased laying, and if too little was given the injuries would be obvious. Scattering their midday ration of grain among some cut straw was a good plan. This necessitated their scratching for it which gave them the necessary exercise for the most profitable production of eggs. During one of his first years in the poultry business he had a very good opportunity of keeping an accurate account of them, which he did, and which showed him that he had made $3.00 on each of his original birds above all expenses (including a new poultry house), excepting his own labor. The eggs were sold at the current market price, and the fowl were all weighed when dressed (excepting the birds left in stock, the weight of which was estimated from those actually killed), and calculated to bring ten cents per pound, the price of beef steak at that time.

Mr. O'Brien said that he had found poultry raising very profitable. That as a general rule the damage done by them was much over estimated. That he let his fowl run loose all the year round. The damage done by geese he had, however, found to be great and had therefore got rid of them. He had his poultry house so arranged that he could clean it out easily, for frequent cleaning out was necessary for the welfare of the inmates. Ducks he had found to be very profitable.

Mr. Bartlett said that a convenient way to keep the house clean was to have a wide board under the perches, this would catch all the droppings of the fowl when roosting on their perches, and as the greater part of the time when they were in the house they were on the perches, these boards would catch more than two-thirds of the total manure dropped in the house. The perches should be low to the ground, especially for the heavier varieties. They should be carefully examined for the red mites which could be seen in more than one-half the houses during the summer days, congregated in myriads under them. These could be easily destroyed with a weak solution of carbolic acid. (See article on vermin, page 176). The lighter varieties of fowl were of course good layers during the summer months, but they did not lay well in winter. It was a general rule to get chicks as early as possible, but he preferred them to hatch the latter part of April, they would then commence laying in the fall and continue to do so all winter (the cold weather preventing their clucking), whereas when hatched before this time they were very

liable to sit in the fall and not lay well in winter. Eggs from young pullets were not as valuable for raising chicks as those from older birds. Brahmas were very liable to be bad cluckers if half-bred, but pure bred birds were no worse, if as bad, in this respect than Plymouth Rocks. Wyandottes were his favorite breed, they were equal to any others as a table fowl, being meaty and well flavored. In egg production they were not excelled, and were easily broken off from sitting. They had frequently resumed laying three days after they commenced to cluck, if shut up by themselves. He had never seen good results from poultry houses built on the second floor. A convenient way to mark the age of birds where it was not advisable to cut off the point of the toes, a certain one for each year, as recommended by some of the members, was to punch a hole with a small sadler's punch in the web of the foot between the toes, by which, with a regular system, a large number of marks could be made.

Mr. Weld said that in elevated houses good results in hatching had been attained when a thick sod had been placed under the nest and occasionally wetted to keep it damp. A large number of other members, besides coroborating what was said above, gave valuable information from which might be gleaned the following:—Poultry can be bred to do what their owner desires them to do in a few years, and are therefore more subject to deterioration in the hands of a careless breeder than any other stock. They are easier overfed than any other animal on the farm. Their manure is very valuable. I made $1.00 on each bird I kept through the year. Put sulphur in their dust bath; ashes are a good dust bath. Rough, scaly legs are due to an insect under the scales. This is liable to be transmitted from the mother to her chicks; destroy them in old and worthless hens by washing the legs with coal oil, which will kill them in one application, but injures the scales; in valuable birds apply lard and coal oil mixed together. Packing eggs in dry salt gives very satisfactory results; turning the barrels or boxes in which eggs are packed in this way, end for end occasionally, is very valuable, preventing the yolk from becoming attached or in contact with the air bubble or shell of the egg. Three or four square feet are necessary for each bird if it is compelled to be in the house the greater part of the day. In the United States the poultry industry leads all others.

Fifteen carloads of live stock were frozen solid during the prevalence of the eastern blizzard, between Rochester and Syracuse.

The Hessian fly is reported to have made its appearance in New Zealand, and to have caused considerable damage in some districts.

Don't you believe that it adds to the value of a cow to have her halter-broken? We know that it does. The time to begin this breaking is while the cow is in calf.

Mr. Atwater, in a recent lecture, when recapitulating the principles of plant nutrition, said that "soils fail to furnish food for crops, not so much because they have not abundant stores, as because the materials are not in available forms." "The infertility of many soils," he added, "is due more to their mechanical condition than to lack of plant food. Such soils want amendment first and manures afterwards." He further adds: "Then, direct action of fertilizers in improving the mechanical condition of the soil is often very important."

Stock.

The Herefords at Home.

Springdale Farm, the property of R. J. Mackie, situated two miles east of Oshawa, Ont., has been for a number of years the home of a very fine herd of Herefords, which number at the present time over sixty registered animals, mostly of Lord Wilton and The Grove 3rd blood. Mr. Mackie laid the foundation of his herd in 1873, by buying a cow and bull from Mr. F. W. Stone, of Guelph; four years later he bought four females from Mr. George Hood, also of Guelph, and a bull from the Ontario Experimental Farm. Two years after this last purchase he obtained two more females from the same source.

In 1884 Mr. Mackie and a neighbor, Mr. L. G. Drew, imported from some of the leading British breeders forty-three animals, of fine quality and breeding.

Between twenty and thirty of this importation were retained by Mr. Mackie. The bulls now in use are: Cecil (bred by Aaron Rogers, Herefordshire, England), imported in 1884. He is now five years old, and is a solid, smooth fellow, weighing about 2,000 lbs. His breeding is very rich. He has been a successful prize winner wherever shown, including the Toronto Industrial, the Ontario Provincial, as well as at many other places. He has also proved himself a first-class sire.

Calculator, also imported, is bred from Mr. Rogers' stock, and is a half-brother to the famous bull Archibald; he is rather small, has a good front end, but is a little slack behind; this bull is the sire of a lot of capital stock.

Sir Oliver Morton, now three years old, bred by Mr. Thomas Rogers, Herefordshire, England, is also in use; though rather small, is a good, even beast, and has been a very successful prize winner at Ontario's leading shows.

Among his six young bulls, Valor, now 18 months old, is probably the best. He, too, has been a prize winner. His dam is the noted cow Victoria 4th, and was got by Cecil.

The breeding cows in this herd number 21, the most noted being Victoria, celebrated in the show rings and as a breeder. Among her many honors was the silver medal at the American Centennial. She was bred by F. W. Stone, is 18 years old, and is now carrying her 17th calf. She is fresh and smooth, and is in good condition, though she has not had any grain for twelve years, and has suckled all her own calves. She eats whole turnips as well, apparently, as the younger cattle. The value of her offspring would foot up to $10,000, valuing each now in the herd at the average price of those sold.

Victoria 2nd is now eleven years old, and is carrying her tenth calf.

The prize-winning heifer Albania, daughter of imported Cinnamon 2nd, got by Albany—a Lord Wilton bull—is three years old and is carrying her second calf. She is the making of a better cow than Victoria. Cinnamon 2nd, got by the never-beaten Grateful, is the finest cow in the herd, and said to be one of the finest in America.

Silk and Velvet are two magnificent cows which have done much to make Mr. Mackie's herd famous. They are four years old this spring, and are carrying their third calves.

Bloom, a daughter of Victoria 4th, is a grand cow of great substance. Her top is not quite as straight as that of some of the others, but, all in all, she is as good a cow as is in the herd.

The yearling heifers (six in number), and the young calves (numbering 15), are a good lot.

Mr. Mackie is an enthusiastic admirer of this breed. He contends that they are more hardy, feed easier at all times, will live and do better on coarser food and poorer pasture than the Shorthorns.

After looking the herd over carefully and making enquiries as to how they have been fed, we must concede to them hardiness and easy-keeping qualities. The entire herd was smooth and in good flesh, although they have been lightly fed all winter, and the cows have been suckling calves. Their prolificacy is wonderful, as will be observed by reading the above report of the herd.

Chatty Letter from the States.

[From our Chicago Correspondent.]

The weather in the farming regions of the States has lately been very wet. The season is about a fortnight late. A month ago there were fears of a spring drouth, but during May much rain fell, and there were frosts as late as the middle of the month.

The farmers of the West propose to form a "Farmers' Trust." A meeting was held at Topeka, Kansas, recently, for that purpose, and in order to take plenty of time to mature plans, they adjourned to meet there in November. St. K. Prime, of Dwight, Ill., was one of the movers in the affair. The whole theory of trusts of all kinds is selfish and monopolistic, and, while farmers have as good a right to work on such a line as anybody, the fact remains that there should be no trusts or gigantic monopolies.

An exporter who sends about 10,000 cattle per week to London and Liverpool, has lately been buying 1,400 to 1,600-lb. cattle in Chicago, at $4.50 to $4.80; and he paid $4.90 for four cars of fine 1,429-lb. slop-fed steers. Usually these slopped cattle are handled only by the dressed-beef shippers.

The Mayor of Chicago has ordered all cattle-feeding sheds to be removed from distilleries in the city, as the sewerage from them poured into the river pollutes the lake water, which the city uses. This is a heavy blow at the distilleries, and it is thought they will have to move out, as a large source of profit comes from the cattle-feeding branch.

This being a Presidential year, the Prohibition party is receiving a good deal of attention. Farmers are interested in the grain which makes whiskey; but, as a Yankee granger said, on being asked what he would do with his corn if there were no distilleries, replied: "Raise more hogs and less hell!"

The T. W. Hamery sale of Polled Angus cattle at Dexter Park averaged $375 for 29 bulls and heifers, and was considered a good sale. These prices are low compared with the old-time figures.

The Marion County (Indiana) breeders sold 43 head of Shorthorns at $112.70 per head, with one head at $75.65. At Des Moines, Iowa, 32 Shorthorns sold at $151.40, and 10 at $125 per head.

At Liberty, Iowa, C. S. Barclay sold six bulls at $101, and thirteen cows at $96; and Pliny Nichols sold thirteen bulls at $82, and twenty-one females at $94.

At the Dexter Park sales of Hamilton & Hadfield, of Buffalo, N. Y., prices for Shorthorns ranged all the way from $25 up to $535.

The fine-cattle market is dull and weak, in sympathy with the unsatisfactory condition of affairs with cattle feeders. And, by the way, fat cattle have made money at less money than they are now bringing. Note the following:—J. S. Latimer, the well-known Shorthorn man of Abington, Ill., brought in some 1,300-lb. two-year-old steers of his own feeding, which sold at $4.55. He says these cattle did not lose him any money, but he is not feeding cattle for his health. It is not the low price of cattle, but the high price of feed, which causes loss. Ten years ago he sent in some much fatter and riper cattle which only sold at $4.50, but then corn was worth 20@25c. and hay $4.00, against 50@55c. for corn and $10 @$12 for hay now. He also sold a great many hogs in 1878 at $2.90@$3.30, and made money because corn was so cheap

The fact remains, however, that at present prices for cattle and corn there is no profit for the feeder. So great has been the disappointment of feeders this spring at not getting higher prices, that scores and scores of them have resolved to quit the business. That, of course, will tend to improve the condition of affairs for those who remain.

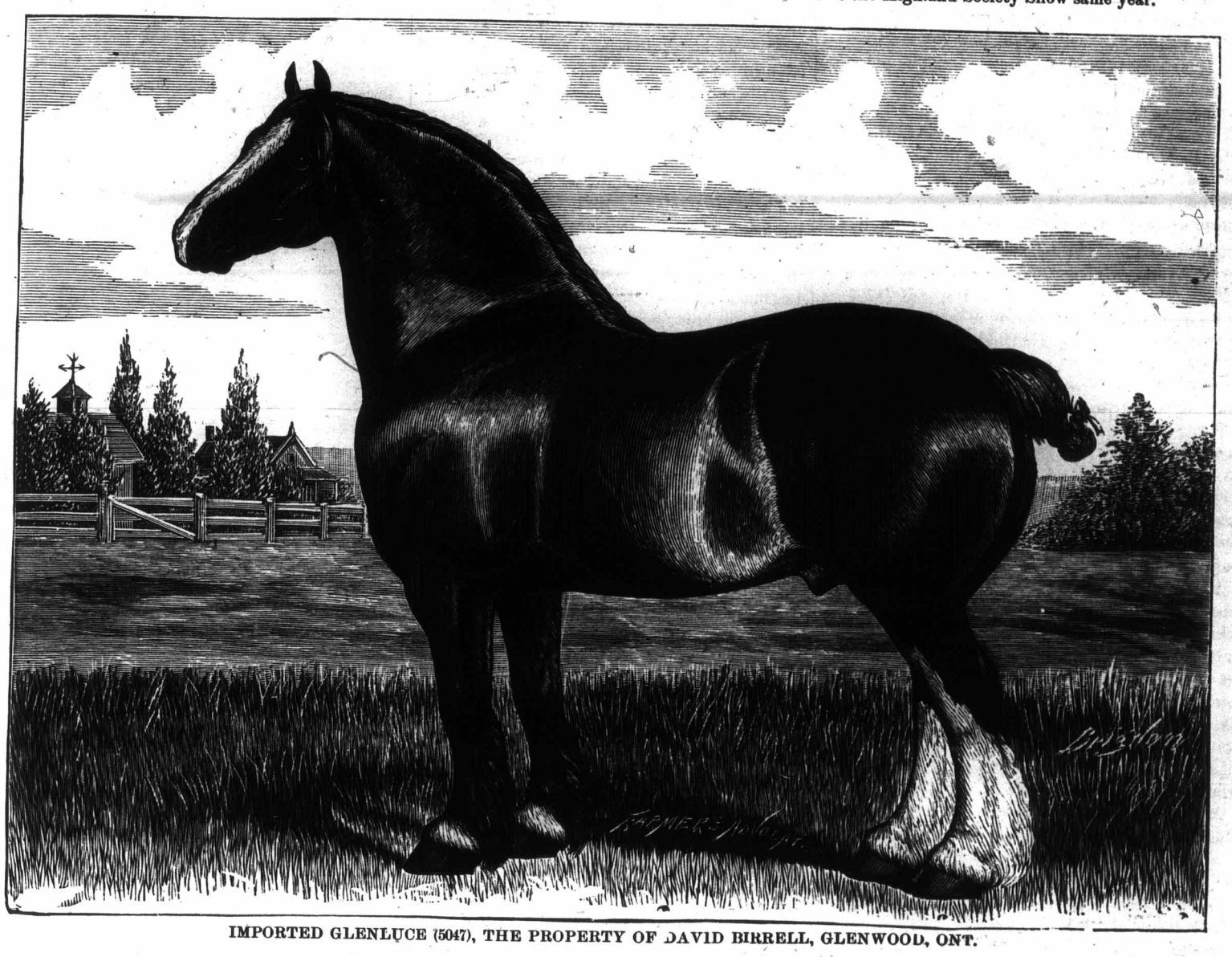
A year ago the "bluest" set of stockmen in the States were in Texas. Now they are better off than their northern neighbors. A fairly favorable winter in the southern part of the State enabled them to keep grass-fed cattle moving to market quite steadily. They fed large numbers of cattle and sheep on prickly pear, "sotol" and cotton seed, and they have had a regular boom in prices for good Texas sheep. Many thousands were sold here at $6@$6.40, averaging 85 to 95 lbs., while some choice clipped muttons brought $5.50@$5.75. However, the market for Texas sheep, since shearing began in earnest, has declined heavily.

Sheepmen of the West are making war on worthless dogs The losses from this source have in many cases been extremely heavy of late. They say a poor man usually has a dog or two; a very poor man always has several, and a shiftless chap, too lazy to earn enough to feed the family, keeps a whole pack of hounds and mongrel curs. Of course, nobody's dog is ever to blame for sheep-killing. Each owner is willing to resent to the bitter end the charge that his dog would do such a thing. The way to settle that is to build a small pen too high for dogs to get out of, have the fence on one side slant in at such an angle that dogs can easily get in; bait the trap with a couple of dead sheep, and then invite the owners of the various dogs caught to come and see for themselves.

There has been a fatal disease among the sheep of Washington Co., New York State, during the last few months. Some farmers have lost over 100 head. The liver and kidneys seem to be the eat of the disease.

Maple Hall Stock Farm.

With a description of this well-known herd and stud we give an illustration of Glenluce (5047), bred by George Cowan, Mains of Park Glenluce, Scotland, imported in 1886 by his present owner, David Birrell, of Greenwood, Ont. Glenluce was sired by the Prince of Wales' (673) most noted son, What-Care-I (912), and is, we think, one of the most perfect Clydesdales we have ever seen, possessing very good feet and legs, great muscular development, and all that goes to make a good Clydesdale horse. He won first at Glasgow Summer Show, 1886, in a class of 26, beating the now famous Granite City (5397), and the horse which won 1st at the Highland Society Show same year.



IMPORTED GLENLUCE (5047), THE PROPERTY OF DAVID BIRRELL, GLENWOOD, ONT.

Among Mr. B.'s breeding mares is that grand old mare, imported, Cumberland Maggie (73), sister to that justly-noted horse, Netherbay (1492). She was a winner of numerous prizes throughout Ontario, including the Provincial held at Ottawa, 1885, and is now 16 years old, but is as fresh and active and as well preserved as a mare of five years. She is the dam or grand-dam of twelve head now living—all good ones, several of which have sold at high prices. Next comes her daughter, Maggie Buccleuch, by imp. Bold Buccleuch (1400), a dark brown, weighing 1,800 lbs., is very handsome, of good quality and an extra breeder. She has been recently sold to Messrs. McIlquhoam & Blair of Lanark Co.

Her sister, Maggie Manford, by Manford (1758), now in foal to Glenluce, is also brown, without white, excepting small star on forehead, is three years old, and weighs 1,750 lbs. She has a very fine appearance and is a good mover, with unusually good feet and legs.

The next oldest mare in this family is a beautiful filly, now two years old, and, like her relatives, entirely without white, possessing the fine feet and legs of her tribe; but perhaps the nicest beast, all in all, descended from Cumberland Maggie, is a filly foaled on the 17th of June, 1887, got by Dollar Chief (4335), a son of Garnett Cress (1662).

Nancy Broomfield, now eleven years old, got by Young Broomfield (211), is the head of another family. She is now in foal to Glenluce, and is the dam or grand-dam of six head. She is a bright bay, with a star only, is of great substance, with very short and strong back, heavy, finely-turned quarters and very good range of neck. She has a very hardy appearance. Her legs are short, and, like her feet, are faultless. She, too, has been a successful prize taker wherever shown. Her offspring, a number of which are now in foal, enjoy her good qualities.

Another very noticeable mare is Darling, now five years old, got by Prince Imperial (1258), a very attractive dark brown, of good quality, having the appearance at a little distance of an entire horse. She has proved herself an excellent breeder.

Mr. Birrell's Shorthorns comprises four males and 22 females, and are divided, as to families, into Crimson Flowers, a purely Scotch family (of fine flesh developments) with a preponderance of Booth blood. This sort has given their owner from time to time many fine show beasts.

Next come the Fashions, of English origin. They are descended from a noted cow imported by the Hon. A. A. Alexander, of Woodford, Ky., U. S. They have long been noted as milkers and feeders; in the former quality they have few equals even among the milking breeds; in fact, they milk so heavily that it is difficult to keep them in good flesh, when not dry, but they gain in weight very rapidly when not in milk.

The Minnies are another family which Mr. B. has had for a number of years, and which he values very highly, ten of which are now in his yard. All are solid red, finely fleshed, very even, smooth and handsome, with splendid skins and hair, all bearing a strong family resemblance, like peas in a pod. It would be hard to say just which is the best, but perhaps the most attractive just now is Minnie Mayflower 2nd, of which we will give our readers an illustration in a future number.

At the head of this herd is Premium Earl (48454), a Cruikshanks bull, imported in 1883, bred by Amos Cruikshanks, Settyton, Aberdeenshire, Scotland; he is of the celebrated Violet tribe, a red roan in color, weighs about 2,600 lbs., and is very smooth and handsome, with short legs, neat head and horns, great depth and width of body, carrying a vast amount of flesh just in the right place to be of greatest value. He has been the valued stock bull, standing at the head of some of Canada's best herds.

Mr. B. still adheres to the Cotswold sheep, of which he has long been a breeder. His flock at the present time is not large, but is of good quality, embodying all the qualities for which it has been so noted in past years.

Mr. B. retired from the show ring a few years ago, and since that time has not followed the practice of excessive feeding, but keeps all his stock in good growing condition. His prices are so reasonable as to be within the easy reach of all classes of farmers.

Improved Live Stock for the General Farmer.

BY J. W. HIBBARD.

I do not wish to be understood that the general farmer must be a breeder of thoroughbred stock, but in my opinion he must improve the stock he already has, for it is an undisputed fact that the scrub will always bring its breeder and feeder out in debt.

With our high priced land and low prices of produce, we must make the land produce all that is possible, and so dispose of the produce that it will bring the most money, and I know of no better way to accomplish this than to combine the raising of improved stock with our farming. As proof of this, let us look back to our mother country, old England, with her high rents and taxes, and we find that they were obliged to improve their stock, and with this they have brought their soil up to the highest state of cultivation. In Holland, too, we find them improving their stock in certain lines for untold years. We are told that the people of Holland are slow to adopt new methods, but yet we find them with improved stock as a necessity to profitable agriculture.

On the little island of Jersey with her immense population, and small area of land from whence to draw her support, they were obliged to improve their stock so that it should subsist on the least possible food and yet produce a large amount of butter, hence we have the little Jersey, an animal of very small stature, but yet a great butter producer. Our best farmers find it profitable to procure a full complement of the latest improved implements and to invest in suitable buildings to shelter them when not in use, and why will it not pay to apply the same rule to our stock.

If a scrub cow that will make six pounds of butter per week pays for her keep, and, by the use of a thoroughbred sire from some of the dairy breeds, her offspring can be made to produce eight or ten pounds of butter per week, the cross has given us a large margin of profit where before we had no profit. The keeper of a dairy herd should thoroughly test his cows and know whether they are paying him or not, and immediately beef the unprofitable ones.

January 31 good mixed butchers' stock, fat cows, heifers and light steers were quoted at $3.40 to $3.75 per cwt., that being the best class marketed from the common stock of our country, and on the same day we found extra grade steers, weighing 1,300 to 1,450 pounds, quoted at $4.50 to $5 per cwt. Here we have a difference of about $1 per hundred in favor of the improved stock, and this is not half the story, for the general average weight of the first c'ass is only eight or nine hundred pounds. At the heaviest weight and the best prices they would bring $33.75 apiece, while the grade, at 1,300 pounds and $5.00 per hundred, would bring $65.00 or almost double the price of the scrub—a good return for the use of a thoroughbred sire.

While the price of cattle per pound may and will fluctuate, yet the difference per pound, between good and poor cattle will remain unchanged; the same may be said of all other kinds of stock. Generous feeding and care will be found very advantageous in dealing with all animals. I find it much more profitable to keep only as much stock as can be fed and cared for well, having this motto always in view, "an honest profit for all feed consumed." To accomplish this, only fine bred males should be used. The breeds of stock kept should be those most suitable for the locality, and the purpose required. These are considerations which have not received the attention they deserve from our farmers.

Big Island Stock Farm.

Big Island Stock Farm, of which Messrs. Mossum Boyd & Co. are proprietors, is situated a short distance from the village of Bobcaygeon, in the township of Verulam, Co. Victoria. The Big Island contains 1,200 acres, 600 of which is cleared. All is used for pasture, and is capable of supporting several hundred head. Besides the Big Island the firm cultivate another farm of 325 acres, nearly all of which is used for growing hay and grain. Here the cattle are stabled during the winter, but in the summer season only the working horses required, and a few cows for family use, are kept, all the others being sent away to pasture in the spring. At the time of our visit, early in May, a draft from their herd of Polled Angus cattle was being made to ship to Chicago, where they were sold by public auction May 23 and 24. This consignment consisted of 44 females and 19 males. The first put on board the cars were ten grand cows, the average weight of which was over 1,500 lbs. Then comes the great show cow, Mary 2nd, of Knockiemill, closely followed by Black Judge 1st, a superb bull, the winner of every prize and medal open to him since he first entered the show ring in 1873. Next comes Kenesse, a young bull which will be two years old on the 20th of June. This is one of the best animals in the shipment. The entire lot is something our country, as well as their enterprising owners, may well feel proud of. They were all in fine condition, though not overburdened with fat, but evinced the ability, care and attention which had been bestowed upon them by Mr. J. G. Davidson, Messrs. Hay & Patton's popular manager, who has temporarily had the management of this herd, especially the oversight of their preparations for sale; and well has he accomplished his task. Messrs. Boyd & Co. have retained a breeding herd numbering upwards of thirty head. Individually they are very good. In pedigree they are rich, representing many of the famous Polled Angus families.

The uniformity of appearance, absence of horns, great thickness depth, and smoothness of body, on extremely short, fine legs, cannot but draw forth the admiration of all who see these cattle.

Besides the Polled Angus, this firm have a lot of very fine imported Clydesdales and Percheron horses. At the head of the Clydesdales stands that excellent sire, Abbotsford, imported by Jeffrey Bros., Whitby, Ont. At the head of their Percherons is Clovis, a third-prize horse in France in a class of fifty-two.

The farmers in the vicinity of this farm have the privilege of using the stock bulls, and the result is a very desirable class of grades. Generally speaking, the bovines found in this locality are "natives" of a rather small, scraggy type. The first cross almost invariably gives a black

polled animal with short legs, and deep, thick, well-fleshed body.

These grades are nearly always fine feeders, resembling the pure Angus more closely than would be expected. When mature they are usually twice the size and value of the "natives" of the same age, and give far better results for food consumers. From our observations, we think the Angus a very suitable breed for this and other similar localities. They are very hardy, good breeders, little liable to disease, arrive early at maturity, and thrive well, even when kept on coarse feed or pasture. Their beef is of excellent quality. They are not classed among the milking breeds, but usually raise their calves well.

PRIZE ESSAY.

The Best Method for the Registration of Stock.

BY ERNEST L. BLACK, NOVA SCOTIA.

The subject before us has been discussed not a little during the last few years; and it is, indeed, worthy of much consideration. Nothing is of more importance to the stock-raiser than a proper registration of pure-bred animals.

That a thorough reform in this matter is most desirable cannot be doubted. Under the present system the farmer is imposed upon. Animals are kept for breeding purposes for no other reason than that they are registered in some stock book, and can boast of being thoroughbreds. Animals too often of inferior quality, and whose ancestors, it may be for many generations, were utterly unfit for breeding purposes, are sold to the farmers at "fancy prices," simply because they are registered in one of these herd books, and so thought to be of superior breeding. The farmer is deceived, and also the man who bred and sold such an animal; for the farmer, once deceived, too often passes judgment on the whole breed, or, perhaps more often, on all thoroughbreds, and in this way the sale of the entire stock is injured. Thus the present system is unfair not only to the farmer but also to the breeder. The inferior animal, under the present system, can be registered in the same book with the superior one. Thus the progeny of the good and poor animals stand on the same footing as regards breeding. Now, this is contrary to the very principles of registration. Why were animals registered as pure breeds? Simply because they and their ancestors possessed some superior quality or qualities which recommended them for breeding purposes; therefore, herd books were formed for the purpose of preserving the purity of blood, and all animals registered on such records have until this day been sold at an advanced price. But what do we now find? Animals which do not possess the excellent qualities for which their early ancestors were formed into a breed and recorded, animals whose direct ancestors for a number of generations have been of inferior quality, registered on this record side by side with the animals of superior quality, and traced through a long line of excellent stock. And the ordinary farmer, who has not had the opportunity of examining the herd books (and even if he had, would, in many cases, be little wiser), will pay as much for the stock of one as that of the other. We are all fully aware that at the present time many wealthy men are entering upon the breeding of pure-bred stock—men who scarcely know a good animal when they see one, let alone how to breed one. Such being the case, we can only expect to see the breeds degenerate in their hands. Formerly, the custom was to kill all animals that were not considered fit for breeding purposes. This system is, I believe, followed in Europe to some extent to-day, but in Canada such a thing is seldom known. When Canadian breeders learn to breed only from the best, and to record no animal which is unfit for breeding purposes, then, and only then, will Canadian-bred animals sell as high as imported ones.

Now, if every breeder would follow such a system, all would be well; but they will not. As things are, no man wants to keep his inferior animals unregistered, and thus deprive himself of $150 or more for each, while his neighbor records animals equally inferior, and hundreds of others worse than his own are recorded. No; when others sacrifice money to save the breed and protect the farmers, then he will; and what better can we expect? And thus it goes on from bad to worse.

Now, what is to be done? It is plain that the registration of only such animals as are of a certain standard is most desirable; but how is this to be accomplished? This is the most difficult part of the question, and I will only venture to throw out a few suggestions.

Would it not be well for each Association to make out a scale of points, considering a certain imaginary form to be the perfect representative of their special breed, and requiring that each animal be raised to a standard, not more than a certain per cent. beneath the object of perfection, and providing that the standard and the object of perfection could be changed, say, only by a two-thirds vote of the Association? Of course, this would require the appointment of efficient officers for examining and reporting on all animals for which application for registration is made, and would thus incur considerable expense; but, certainly, something of the kind is most desirable.

Perhaps the necessary funds could be obtained from the Government; but this is only a suggestion. In any case, the Government should not have the appointment of the necessary officials. We have had too much of that already. Men appointed by Government are seldom appointed on account of their efficiency, but rather in pay for their support; and their object is not often to promote the interest of the country, but rather that of their party. Perhaps the desired end could be brought about without the expense which it might at first appear to require. Suppose that the necessary officials, having been appointed, time tables be made out, showing the time at which they would be prepared to examine stock at the various sections, and each breeder be required to make application for the examination of such stock as he may wish to register, a certain time previous to the arrival of the officer in his section, and to give satisfactory evidence that such stock is eligible for registration—providing the approval of the examining officer. This might save a great deal of unnecessary expense for travelling. Of course, if a breeder should be dissatisfied with the report of the officer, he should not be compelled to abide by his judgment, but should have the opportunity of having his animals examined by another official. The expense in this case should be largely borne by the breeder if the animal should be found unfit for registration.

Now, of course, I do not present the above as the only, or even the best, means of accomplishing the desired result; but that the best alone should be registered I have not the shadow of a doubt.

It is true that many breeders would lose by this system, but they are only the poorer ones—the ones that had better leave breeding alone, anyway. As there would be less animals registered, those which came up to the standard would sell at a higher price, and thus be more remunerative to the good breeder; and that it would be far safer and better for the ordinary farmer, no one will hesitate to admit, as the registration of animals would be to some extent a guarantee of their individual excellence. Then, again, as each animal would be judged by a scale of points, it would be the object of every breeder to bring his animal as near as possible to the object of perfection established by the Association controlling that breed, and thus a degree of uniformity would be promoted which could not otherwise be done, and capable breeders would be always "breeding up."

I quote as follows from the report of the Holstein-Fresian Association, which met in Buffalo in March last, as given in the Country Gentleman: — "Vice-President Huidekoper brought up the question of the best method for reducing the number of bulls in market. It was a problem with all the breeders of blooded stock, how they might restrict the number. Some associations of breeders had increased the price for registering males, but all plans had thus far failed. The prevailing idea of the Association seemed to be that the best plan for the Holstein-Fresian breeders would be to make a rule that a man should only register half as many males as females. The matter was referred to the officers to report a plan at the next meeting." Now, could not that Association effect the desired result and at the same time accomplish another aim, that of developing the breed? Why not—instead of requiring that each man should only register half as many males as females—adopt a system by which only the best be accepted? Would it not be well for the officers of the Association to consider this matter, and take the lead of other Associations in this respect; then will their breed continue to hold a higher and still higher position in the minds of the people. Now, I hope that it will not be thought that I underrate the value of pure-breds as registered under the present system; far from that. I believe that the pure-bred has been of incalculable value to good stockmen; men who know how to use the best, and use them to advantage, are well aware of their value. I believe, however, that a system could be adopted by which their value could be much increased to the breeder and to the every-day farmer.

To breed from grade sires is hazardous, but, certainly, to pay high prices for inferior pure-breds is ruinous. Then let us see that there be no such animals recorded.

Let me urge upon the readers of the ADVOCATE not to let the matter of registration drop here, but think it up! talk it up! and write it up!

In conclusion, let me say, it is with much pleasure that from time to time I read the monthly prize essays published in your valuable paper. These essays alone I consider worth more than the subscription price. We have been taking the ADVOCATE upwards of eight years, and it is always a welcome visitor, ever increasing in quality and material, and always ready to promote the interests of the farmer.

The Farm.

Cultivation.

This term can be applied with equal correctness to the preparation of the soil for the crop, as to the subsequent tillage of the same for the destruction of weeds and the preservation of the proper texture of the soil. The last factor is one of the most vital importance to the grower of all hoe crops, whether he be an agriculturist or an horticulturist. It has been frequently said that weeds are a blessing, as they constantly remind the tiller of the soil that he has to keep stirring it, which he, without this reminder, would often forget. In fact, some farmers think that it is totally unnecessary to cultivate except for the destruction of weeds. But this is a very erroneous idea, as the benefits of cultivation are undoubtedly great, especially in a dry season. It does not only admit air, but also preserves the moisture of the soil.

The exact way in which this preservation is effected is disputed by some; but the explanation which carries the greatest weight, and is almost universally accepted, is that the cultivation, loosening the soil, breaks the capillary action in the stirred portion, which, preventing the moisture from rising to the surface, protects it from the sun's heat, and, therefore, from evaporation. Or, in other words, the stirred portion acts as a mulch to the firmer soil below. The capillary action, or the force which causes the water to ascend, is greater in small than in large tubes, and as cultivation widens the spaces between the particles of soil the moisture will not rise as easily, if it rises at all, in cultivated soil, and will therefore be preserved. To fu ly economise the moisture it will be neceesary to keep the soil loose at all times; and as a shower of rain has the effect of packing it, it will be advisable to cultivate it as soon after a shower as the land will allow (stirring the soil when wet will, of course, injure its texture). Another advantage of cultivating as soon after a rain as possible is that we are sure that there is water in the soil to preserve, which if not taken care of may be lost in a few days.

Careful experiment made at New York Experimental Stations show that the rain falling during an average growing season is not sufficient to supply the water evaporated during that time, even if the surface soil is thoroughly cultivated, but that if it is cultivated the loss of water is much less than on sod or when bare and compact. The experiments in an average year, when the rainfall was nearly 14½ inches during the summer months, the evaporation on the cultivated soil was almost 1½ inches less than on the same soil not cultivated, and 2¼ inches less than on sod. These figures show conclusively the advantages of a thorough cultivation, for in a dry season 1½ inches of water over the whole field, distributed equally through the entire growing season, are not to be despised, and well worth the trouble of running through the potato plot, root crop and corn field once every week if necessary. In fact, in a dry season it may be the means of obtaining a fair or even good crop, when otherwise it would be an entire failure. But do not wait to see if it is going to be a drought or not, for by the time you will be able to judge this the water will have gradually disappeared, and cultivation will not bring it back, or at least to a very limited degree, for some of the moisture in the air circulating through the soil may be condensed by cooling it below its dew-point. But as the air in midsummer is generally much above its dew-point, and the quantity circulating through the soil is very small, the moisture from this source (if any) will be necessarily limited.

The Thistle Nuisance.

By a competitor in the Farm Drainage Essays. (See page 180.)

Perhaps next to the thorough drainage of the soil (which is, of course, the first necessity, and that on which all other efforts for success are more or less dependent—for nothing can succeed while the soil is full of stagnant water), is the necessity of ridding the land of thistles and other foul weeds. For it is a lamentable fact that over large tracts of our country we have thousands of acres of the richest and most productive soil, the returns from which are lessened by at least one-third owing to the crops being choked out by Canada thistles. It is not by any means an uncommon sight on many farms to see, year by year, large patches of crops so full of thistles that it is not worth the labor of harvesting, it being in many cases abandoned after being cut, sometimes burned, and at other times permitted to remain and intensify the evil.

There are, of course, a few farmers (unfortunately, too few), who are evidently successful in resisting the encroachments of this persistent enemy, and manage to keep their farms comparatively clear of thistles. What a few are able to accomplish along this line of action is surely pos sible to others if the proper means are employed. No doubt there is a great deal of truth in the old adage, "A stitch in time saves nine," it being a great deal easier to keep your land clear of these pests than it is to root them out when once they have gained a foot-hold. And no doubt one of the easiest and best means of checking the encroachments of the foe is the frequent seeding down to grass; in a compact sod you can almost defy them to establish themselves. But as land must sometimes be plowed and grain crops raised, we must be prepared to meet the enemy in the open field. And where a grain crop is not fo'lowed by grass sown with the grain, it is undoubtedly necessary that stubble land should be plowed immediately after the crop is taken off, and followed by after-cultivation, as may be found necessary, through the remainder of the growing season. This, of course, means time and labor, and to follow such a course somewhat conflicts with other operations on the farm, but better that, than to have our land over-run with thistles; where the ground is comparatively clear of them this plan will in a great measure check their progress.

But where land is thoroughly over-run, as is too often the case, the only remedy is summer fallow, and thorough at that, as no half-way measures will do in such a case. To begin: For the benefit of the soil on clay land, I would plow deeply in the fall and then leave the thistles to flourish and grow unmolested till the latter part of the following June, by which time they will be in all their splendor (and the taller and ranker the better). The proper time having arrived, be prepared to take them in hand in earnest by plowing them under; a chain attached to the plow will be required to draw them down and cover them properly, and if the work is well done the battle is more than half won at the first operation. You have given them a severe blow at the most critical time; the plant has in a great measure exhausted its vitality for the season, and is, consequently, far less able to resist your attacks than it would have been at an earlier stage of its growth. The crop of thistles that you have turned under, with their large and far-reaching roots running into the soil in all directions, will enrich the land equal to a good dressing of barnyard manure, and make an excellent preparation for fall wheat. When treated thus at this stage of their growth, you will find it will be some time before they show themselves again. You will likely have time to secure your hay crop, but as soon as they begin to show signs of putting in an appearance again, be prepared with some kind of an implement that will stir the soil and cut the thistles off just below the surface (deep plowing is not necessary now). Repeat this operation as often as required through July and August; on no account allow them to appear above the surface, and you will find them completely subdued in one season, at no very great expense, either. But, in order to be successful, you must attend to the business at the proper season; and be thoroughly in earnest if you wish to succeed. The reason of failure in this work is the half-hearted way in which farmers go about it; a good many expend considerable time and labor, and give up in despair when a little more perseverance would have accomplished the object in view. Others appear to be quite indifferent in regard to this great and growing evil, which threatens to become almost equal to one of the plagues of Egypt. It seems almost impossible to secure united action on this thistle question; the careful farmer must act independently of others, it will have to be every man for himself. No doubt a good deal more could be done by municipal councils in the way of enforcing the law against al owing thistles going to seed. If an energetic inspector was appointed in each municipality, who would keep a sharp eye on the careless and strictly enforce the law, this scourge could be kept within reasonable bounds. If farmers in general were possessed of a little more of the spirit of a sturdy son of Britain that I am acquainted with, one who never likes to be beaten in anything that he undertakes, and who had been for some time keeping an eye on the thistles and was beginning to find out that in spite of the ordinary methods adopted, for their extermination, they were determined to live and increase, and were in a measure setting our friends at defiance, that was something that could not be borne any longer; and so (to use a familiar expression among farmers), off went the coat and up rolled the sleeves, and forthwith issued the declaration of war:—"Maister Thistle I have been tormented with you long enough, I am bound to be rid of you altogether." And I have no doubt but the same energy and perseverance that raised this man from the position of plow-boy in the Old Country to that of a leading and successful farmer, and owner of 400 acres in Ontario, will overcome the thistles every time.—[Cultivator.

The old world is getting badly overcrowded. In Norway, which is largely farmed by peasant proprietors, 8 per cent. of the population are receiving relief. In France, out of 8,000,000 landed proprietors 3,000,000 .re exempted from taxation on account of their extreme poverty. Russia is ground in the dust by debt and taxation, and the poor peasant must sell at about any price the middleman chooses to offer him.

Weeds.

These plants are doubtless the subject of much controversy, but notwithstanding this they are, instead of on the decline, on the increase. The negligence of some farmers, and the large annual crop of seeds produced on some public roads, account to a large degree for this state of affairs, but the importation of fresh seeds with the seed grain and the want of proper knowledge regarding their destruction, experienced by some farmers, are also important factors that prolong their existence.

Leaving out of consideration the various methods of the introduction of fresh seeds to the fields, amongst which the manure pile is of great importance, the three principal factors to be considered in their destruction are: 1. "Not to let them see the light of day," or, in other words, to kill them before or immediately after they appear above the surface. In this stage they are tender, and a slight stirring will effectually destroy them. 2. If they have escaped the attention or control when in the young and tender stage, great care should be exercised not to allow them to bear seed, for otherwise they will cause so many more weeds the next season. 3. If for some reason or another the seeds have been allowed to mature, the land on which they have grown should under no consideration be plowed deep; for by so doing these seeds, being buried too deep to enable them to germinate, will lie dormant till turned up at some future time, thus spreading the pest over a long number of years.

Having briefly reviewed the methods for the destruction of weeds in general, some might ask: Are weeds always injurious? and if so, how do they cause this injury? The answer will be found in the following extract from the report of the New York Experimental Station:—

Where weeds are allowed to grow freely the crops may be absolutely destroyed. In the case of corn the plants appear yellow, wilted, fail to attain proper size, and fail to form good ears; and the same phenomena may be noted with other crops.

The amount of fertility removed by weeds is not sufficient to establish the conclusion that the injury comes from the robbing of the soil and thus starving the plant. Furthermore, if such were the case, the application of additional manures to offset the robbery of the weeds would destroy their malign effect.

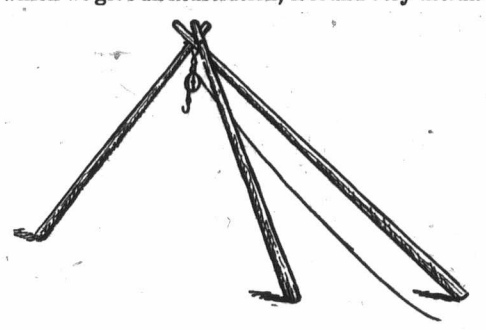
Weeds are not destructive through shading the ground, as experiment shows that mulches applied do not produce the same effect. If, however, we consider the enormous amount of water evaporated by these weeds during their growth, the necessity of additional water to the soil in an ordinary season during the hot months, and the appearance of the crop which indicates suffering from thirst, the conclusion becomes almost certain that the ill effect of weeds is largely due to their robbing the crop of proper moisture through their draughts upon the soil.

As interesting confirmatory evidence as to this being the true view of the weed question, we may quote the testimony of vineyardists, some of whom advocate allowing weeds to grow in their vineyards, while others advocate clean culture. Personal inquiry demonstrates the general fact that those gentleman who advocate the leaving of weeds in their vineyards have lands which are not subject to excessive drought, while those who advocate clean culture have usually reported their soil as very permeable to water. When we consider that during the period of ripening of the wood and of the berry in the grape, dryness is an important factor both in securing the ripening and in securing the qualities, we have at once a plausible explanation. Those gentlemen who advocate the allowing of weeds to grow are thus exhausting the surplus water of the soil injurious to their interests as vineyardists, while on the other hand those gentlemen who advocate the thorough removal of weeds are conserving the water to the soil which does not contain it in excess of the needs of their occupation.

Economy of Labor.

[Continued from May.]

On every farm the buildings shonld be arranged so that a horse fork can be worked, with which, if intelligently used, one man can do the work of two or three, or in other words one team and two men, with a boy to lead the horse (which is attached to the draw rope), will do as much work as five men and two teams where everything is pitched by hand; on an ordinary farm a good horse fork will pay for itself the first year, and be none the worse for being used. By using a sling, which is worked in the place of a fork when drawing sheaves, one man can mow the sheaves for two teams, and the teams will draw more in a day than they can when all is pitched by hand; rakings can be stored quickly and with ease by this app'iance, also beans and the dwarf peas—all of which are very bad to put away by hand. A load, whether loose or sheaves, should be unloaded in from five to eight minutes with fork or sling as the case demands. In stacking hay or grain (especially when unbound), a triangle, of which we give an illustration, is found very useful.



It is constructed with three poles (cedars are best), two of which are 45 ft. long, each, the other is 55 ft. This makes a very convenient length to handle. Some prefer them longer, but in any case have one pole longer than the others. The butts should not be more than 1 ft. in diameter, and four inches is thick enough at the top end. About 18 inches from the top bore a 1¼ inch hole in each. Having decided where you wish to build your stack, dig two holes 6 inches deep in line with each other, about 20 ft. apart. These should be about 2 ft. from the side of your stack, in case it is a long one. About 40 ft. from these holes, standing on a line between the two, place a loaded wagon. Now take your two short poles, place the butts so that when they are erected they will slide or drop in the holes; place the small end of each on the load; take the long pole to the other side of the wagon, place the small end on the load also, putting it between the other two; pass an inch bolt, made of good iron, through all three; put a large, strong, flat washer on each end of this bolt, which has a head on one end, and a nut with deep, well-cut threads on the other. Place the butt end of this pole on the line running immediately between the other two; screw the nut up, allowing the poles about one inch play on bolt. Put a strong chain around the butt of this pole, a horse hitched to it, and walked toward the wagon on the line between the other two will erect them, as seen in our illustration. When erected the two poles lean a little toward the long one, which is more oblique; tighten the nut so as to press them very close together, and weave a short logging chain around the tops so as to draw them together, and fasten securely, allowing the larger hook to hang below the apex about 18 inches; on this hang your pully, through which your rope runs. About one foot from the ground attach another pully to one of your short poles, whichever is most convenient. Pass your draw-rope through this, also, and you are ready for work.

This simple contrivance is a great convenience. The writer stacked sixty large loads of peas on one bottom last season, having only one assistant on the stack, two teams drawing, and two men pitching in the field. The loads drawn were large; the average time taken to unload did not exceed eight minutes, except the last two or three loads, when finishing the stack. If suitable poles are got, two men who have seen a triangle erected, will take it down or put it up in fifteen minutes or less. We put it up wherever we wish to stack. A person who has once used it will never stack by hand again.

Value of Paints.

We have frequently called the attention of our readers to the immense value of paints, but as this is a subject much neglected we again bring it to their notice by quoting the following communication to one of our exchanges:—I have a wagon, of which, six years ago, the fellies shrunk so, that the tires became loose. I gave it a good coat of oil or paint, sometimes both. The tires are tight yet, and they have not been set for eight or ten years. Many farmers think that as soon as wagon-fellies begin to shrink, they must go at once to a blacksmith shop and get the tire set. Instead of doing that (which is often a damage to the wheels, causing them to dish), if they will get some linseed-oil, and heat it boiling hot and give the fellies all the oil they can take, it will fill them up to their usual size, and tighten to keep them from shrinking, and also to keep out the water. If you do not wish to go to the trouble of mixing paint, you can heat the oil and tie a rag to a stick, and swab them over as long as they will take oil. A brush is more convenient to use; but a swab will answer, if you do not want to buy a brush. It is quite a saving of time and money to look after the woodwork on farm machinery. Alternate wetting and drying injures it, causing the best wood to decay and lose its strength, unless kept well painted. It pays to keep a little oil on hand to oil fork-handles, rakes, neck-yokes, whiffletrees, and any of the small tools on the farm that are more or less exposed.

At a meeting of the Farmers' Alliance in Illinois, a memorial to Congress was unanimously adopted, asking for a reduction of $100,000,000 in Federal taxes, and that lumber, salt, sugar, wood, coal, iron and copper shall be put on the free list. They also protest against the removal of the tax on tobacco and whiskey. The farmers are moving.—Western Tree Planter.

How to Drink.

A quarter of a glass of water drunk or sipped slowly will quench thirst far better than a full glass swallowed at a few gulps. Try it once and be convinced. The rapid swal'owing of food and drink is one great cause of dyspepsia among Americans Many a severe and even fatal illness is caused by swallowing large quantities of cold drink when overheated, while by so doing thirst is often increased rather than diminished. Stop this unmannerly swilling, take a little time to taste and enjoy what you drink, and you will not wish to go back to the old hurtful way. Where water is plenty, bathe the hands and face before drinking (though not so much as to chill the head and wrists), keep the hair on top of the head wet, and you will suffer comparatively little from the heat. A healthful drink for summer, and a very refreshing one for those who like the taste of hops, is made by putting a few hops in a pail of cold water, and let the whole stand an hour before drinking.—[W., in Farm and Home.

Preserving Harness.

A set of harness, carefully attended to and cleaned and greased occasionally, will do as much work as three or four sets not properly looked after. All breaks should be properly mended, which can be easily done by riveting the broken strap together with copper rivets, supplied with proper washers; or, better still, by stitching them together with a proper "wax-end."

They should be cleaned and greased at least once a year, and the oftener the better. For this purpose take the harness apart, and, after having soaked it for ten or fifteen minutes in warm water, clean each strap separately with a brush and warm water, in which a little sal-soda has been dissolved if the harness is very dirty. Placing the straps on a board greatly facilitates their cleaning. When almost dry grease them with neat's-foot oil mixed with a little lamp-black (other oi's will answer the same purpose, but this is considered the best). Leave the strap hanging in a warm place over night, and rub off all the oil not absorbed in the morning with a woo len rag. Then, after being put together, they are ready for use. Light harnesses are generally washed off with castile soap and water after being oiled. This makes them look neater. All stitching should be done before being greased.

Haying Notes.

Do not commence your haying too late. Remember, that when the first is cut at its best, the last will be too ripe to give the most favorable results, unless your meadows ripen very unevenly. Red clover should be cut at commencement of bloom, for after that time it changes to wooden fiber very rapidly. Do not cut your meadows near midday of a hot day, for then it will not dry evenly. Don't turn in the mower immediately after a shower of rain or a heavy dew, but wait till the moisture has evaporated, which takes place much quicker when the grass is standing. Put your clover in small cocks after it has been well wilted. By this means a better, greener hay is produced and less loss by the breaking of the leaves than when dried in the windrow. A lodged field of clover is easiest and best raked by following the course of the mower around the field. This prevents the teeth tangling in the longer stubble at the lodged places. Hay moved away when moist with rain or dew is more liable to mould than when moist from its own sap.

The Dairy.

Butter Making.

BY DAIRYMAN.

There is no produce of the farms of Canada where there is more room and greater need for improvement than there is in the farmer's dairy produce. No doubt there has been a great deal said and written on this subject of late years, but the progress has been very slow; still we cannot say there has been none, but the necessity for it has been greater than ever, for other countries are progressing rapidly, and if Canadian farmers do not do more than they have done in the past they are sure to be left behind in one important branch of their operations, viz.: butter making. This branch of farm operations has in the past been too much left to the women. The farmer in many cases has scarcely given his dairy-maid, whether wife or daughter, fair play by not giving her the accommodation and conveniences required for the proper execution of dairy operations. There are very few farms where there is a nice, clean, well ventilated dairy room, and good, sweet, clean storage rooms for the preservation of the products after they are made. Is it not the case that many a farmer's wife has only one side of the cellar for her dairy room? and that in the spring of the year, when the farmer is busy, to get his crops in and other things attended to, the dairy must take its chance till he gets time to clean up a little? No person need try to make fine butter when keeping the milk till the cream rises in a cellar where during the winter all the fruits, vegetables and provisions the family needed were stored, and in which every window and crevis was scarcely closed to keep out the frost. Such quarters should be thoroughly cleaned, the walls and ceiling whitewashed with lime and the place thoroughly ventilated for two or three weeks before being used for a dairy room. We want every farmer who reads this to think it over, examine his own dairy room and see that everything is in proper condition about the dairy; and instead of being a grumbler, to give his dairy-maid a little encouragement in her work by seeing that she has accomodation suited for her work. This is the first point requiring information if our dairy interests are to progress.

The next thing to be avoided in butter making is not to let the milk stand too long before skimming it. This is a mistake many make, thinking that by letting it stand longer they get more cream, but quality first, should be the aim, and quantity next.

Another thing to be avoided is not to gather the cream too long before churning it, for if it stands too long before being churned it will get an old taste, which will, of course, be imparted to the butter, and continue to get worse with age.

No dairy can do without a thermometer. No milk should stand more than twenty-four hours till skimmed No cream should be kept more than three days before being churned, and no churn should be driven or churned too quickly. No butter should be churned in less than thirty to forty minutes, if it is churned in less time it has either been too warm or churned too quick or partly both, and the result will be weak, greasy butter, instead of a firm, waxy, solid product, that everybody likes and can hardly get it.

As June butter is usually the best of the summer's make, a few hints about the making may be useful now. When the cream is taken off the milk and put into the gathering crock, keep the crock in a cool place, till all the cream intended for one churning has been collected in it. Every time fresh cream is put in stir the whole together, so that it is well mixed. Before churning, warm it by setting the crock in warm water or in a warm place till the cream is perfectly thick and even; it will then be slightly acid or sour. Scald and heat the churn with hot water before putting the cream in it. When the cream is put in, either warm it or cool it, as may be required, to a temperature of about 58° to 62°. Every dairymaid must study her own work and her own material. If 58° is too cold, try 60°; and if that is still too cold, try 62°, and so on, till she has found out the temperature best suited to her circumstances. There are various ways for washing butter. Some prefer one and others another method. It matters little how it is done so long as it is done right, and that is when the butter-milk is all taken out. It can be partly washed in the churn. Some wash with brine, and some take it out and wash with water. In washing, press it or roll it, but don't bruise and spread it, for this injures the grain of the butter. For your own sake, and that of those who may eat your butter, don't use common coarse salt, nor too much of it. Half an ounce of salt to a pound of butter will keep it in large rolls for two or three weeks, or longer. For full salted butter never use more than one ounce to the pound, and pack down closely and solidly, and cover with brine to keep off the air. With close attention and observation no fear need be entertained, and progress will be made.

Keeping Milk Sweet.

A writer in the Southern Cultivator says:—"Seeing an inquiry on the above, I consider it my duty to give the following method which a thoroughly reliable neighbor farmer gave me recently. Immediately after the milk is strained, while yet warm, put it on the stove and let it simmer for about five minutes; then set it away in its proper place. This plan, which he had seen many years ago in an agricultural paper, had given him entire satisfaction."

Although this method may aid in preserving the milk, it will, we fear, injure the flavor of the butter produced from its cream; and we would advocate keeping the milk in a dry, cool place, having a uniform temperature and perfectly pure air. This would prevent the milk from souring too rapidly, and produce the best quality of cream.

Holding up Milk.

A correspondent in one of our exchanges, while writing about cows holding up their milk, recommends giving them some food that they like best, and placing a rug or bag rung out of hot water on their loins during milking.

This may be a plan that answers well in exceptional cases, but, as a general rule, need not be resorted to; for if cows are regularly milked by the same person and receive kind treatment, they are not liable to keep up their milk, even if accustomed to do so before receiving such treatment Excitement and bad treatment during milking are fruitful causes leading to the acquirement of this habit, which seems to be more or less hereditary in some families.

Little Falls Creamery.

This factory, situated near Georgetown, Halton County, Ont., had been established and operated some years ago by private enterprise, but owing to some dissension between the parties concerned its operations was abandoned. The Toronto World, trying to reconcile the parties, or, in some way or another, to re-establish the work done in the factory, was instrumental in the calling of a meeting at Georgetown, last month, where a large number of farmers, among which were about fifteen of the old creamery patrons, were met by Mr. T. Cheesman, the Secretary of the Creamery Association; Mr. Valency E. Fuller, of Hamilton, and Mr. W. F. Maclean, editor and proprietor of the Toronto World, for the purpose of trying to induce the farmers to operate the creamery on the co-operative plan.

Mr. David Cross, being elected to the chair, said that he was pleased to see gentlemen present to speak to them about the dairy interests, the importance of which could not be overlooked at the present, when wheat-growing and cattle-raising had been overdone ; and they had to look to the dairy to give them a more profitable employment. This industry would become more and more important as the wheat fields and grazing districts of the West became more developed. The dairy should, therefore, be managed in the most profitable and economic manner.

Mr. Cheesman, speaking in behalf of the Creamery Association, said that they received a grant from Government, which they spent in spreading the Creamery system.

Mr. Fuller moved the following motion, which was seconded and carried :—

That whereas the existing methods of farm butter-making diminish the fertility of the soil, restrict the production of milk, and render butter production from small herds costly to the farmer and injurious to the reputation of Canadian butter at home and abroad; we, therefore, approve the action of the Ontario Creameries Association, and heartily support its policy of extending the factory process of butter-making as the best calculated to secure uniformity of quality, an increased consumption, the highest market prices, and the permanent well-being of the dairy farmers of the Province.

In support of his motion, Mr. Fuller pointed out the advantages the farmers of the vicinity had in intelligence, excellent land and nearness to a good market in Hamilton and Toronto. If they would only make good butter according to correct methods they would gain much profit by it. He showed that there was an ever-increasing demand for good butter in Canadian cities. Three years ago he had hard work to get 25 or 30 cents a pound for his butter. Now he was selling it readily at 40 and 45 cents, and had even got 60 cents a pound. He spoke of how easy it was to sell good butter when the people got to know it was good, and how bad butter was slow of sale and injured prices both in the home and foreign markets.

The following motion of Mr. Cheesman was unanimously carried by the meeting :—

That the factory system of butter-making improves the breeding of dairy stock, encourages better feeding, makes less demand on soil fertility than any other system of farming, and merits the utmost support of every true friend of economical husbandry.

Mr. Cheesman laid down the fact that butter-makers had to face the problem of producing more butter from a given quantity of milk, at a less cost for feeding. A pound of butter was produced by 16 pounds of some milk, and by 28 or 30 pounds of milk of another sort.

Mr. Maclean brought in a motion for the reorganization of the Little Falls Creamery, which should have for its primary object the manufacture of butter for the supply of the Toronto and Hamilton markets. He proposed that a committee be authorized to do this work of reorganization. He stated that The World had taken up the dairy interests, and intended to continue to do so.

After passing a hearty vote of thanks to Messrs. Maclean, Fuller and Cheesman, the meeting adjourned to allow the committee appointed to go on with their work of reviving the Creamery, by enlisting the farmers in the neighborhood as patrons.

Some years ago we personally visited Little Falls Creamery, and were much delighted with its situation, which we consider second to none we have yet seen. It is located on a hill-side, studded with beautiful evergreen and deciduous trees which surround and shade it. Through this building rushes a stream of fresh, clear, cold water, which issues from the rocky subsoil but a short distance from this building. These natural surroundings keep the factory cool and refreshing —a most desirably quality.

Delicious Flavor of Butter.

It can be easily shown, says the Times, that the dairyman who is desirous of making fine butter must closely and carefully study his market and the destiny of the butter after it leaves his dairy. If it is for immediate consumption he may churn the cream sweet and use little salt if his customers like a vapid flavor and a creamy texture. But if they desire a full, rich, nutty flavor—a really perfect butter—he must expose the cream to pure air for at least 36 hours that it may undergo a process of ripening to develop the desired butter flavor and use enough salt to secure at least three per cent., or half an ounce to the pound of it in the butter after it has been worked. The late L. B. Arnold, one of the most expert judges of dairy products, once remarked as follows as regards the best flavored butter: "A peculiarity noticed in the manufacture of the finest samples of butter I have ever met with, is that the milk when set for the cream to rise has been spread out pretty thin in temperate air which is free from foreign odors, currents, and unusual dampness. I have met with plenty of fine, and even fancy butter, made by various modes of deep and cold setting; but the most exquisite flavor has come from an exposure of the cream to pure air at about 60° for 30 or 40 hours while rising on milk spread out two and-a-half to three inches deep. By such an exposure the butter fats acquire a new and delicious flavor, which does not exist in the milk when it comes from the cow and which I have not found developed in any other way."

At the Farmers' Institute held in Orange county, N. Y., Col. F. D. Curtis, in answer to a question, said that white specks in butter were caused by particles of the caseme of the milk getting mixed with the cream. If the milk stood too long before the cream rose, or if the cream rose too slowly, it carried these particles into the cream, and they thus became incorporated with the butter. The same thing occurred if the cream became too acid, the fermentation carrying up these cheesy particles. The remedy was to see that the cream was raised properly and not allowed to become too ripe.

Dairy Cows and Their Feed.

BY WALDO F. BROWN.

In a former article I showed that it would cost little, if any more, to produce a pound of butter than a pound of beef, and that the price of butter would average at least double that of beef. I believe there are many discouraged farmers, who for years have been vainly trying to get out of debt, who would find in a well-managed dairy their best opportunity. If the cream can be sold to a factory and the milk kept at home the wife will be relieved of the labor of making the butter, but with suitable apparatus and good help a farm dairy of from ten to thirty cows can be managed very comfortably, and rather than sell the milk I would advise that the butter be made at home, for with the milk the heifer calves can be raised to keep up the herd, and when fed to pigs in connection with other foods a pound of pork can be made for each ten to fifteen pounds of milk, and this will pay for quite a percentage of the food of the cows. After many years of experience I recommend grade Jerseys for the butter dairy. The best way to start—particularly if short of money—is to get a few good native cows and a choice Jersey bull, and begin grading up. As a rule, most Jersey cows have rather small teats, so it is well to select large-teated cows for the foundation of your herd. Fortunately, Jersey bulls can be bought cheap, for the supply is in excess of the demand.

I believe it to be true also that grades from three-quarters to seven-eighths Jersey blood are as valuable for the dairy as higher grades or thoroughbreds, and a dairyman can, in a few years, raise a herd of grades that will cost him no more than common cattle, and that will produce fifty per cent. more butter of better quality. There is a strong prejudice among farmers against this breed because of their small size, but long experience with both large and small cows led me to the conclusion that they eat in proportion to their weight, and that the food of support necessary for two cows of 1,200 pounds each is ample for three of 800 pounds each, and on a much less amount of food, with me, the small cows will average more butter than the large ones. Last winter I fed in the same stable large and small cows; this winter I have had all small Jerseys, and the difference in the quantity of food eaten has been quite noticeable. The idea that you must get a herd of cows that will be profitable for beef when you are done milking them is erroneous, for often the extra food they will eat during the years of milking will cost twice what the carcass will bring. The most satisfactory food I have ever used for dairy cows, taking cost and effect into account, is cob-meal and bran, mixed equal bulks, the corn and cob ground so fine that it would take close looking to detect the cob.

In connection with this I have fed what bright clover hay and corn fodder the cows would eat clean. On ten pounds of this mixture of bran and meal per cow, costing this year (when prices are high), eight cents per day per head, my cows have maintained a full flow of milk, and are in better flesh than they were in the fall. Usually I can buy bran in the fall at $12 per ton and corn at 35 cents per bushel, which would bring the cost of this ration to a little less than six cents a day per cow, including grinding of the corn, for which we pay six cents a bushel of 70 pounds. As I have not fixed an apparatus for warming

the water, I have given my cows freshly-pumped water, but I am convinced of the economy and profit of raising the temperature of the water to a point at which it will not chill them. It also pays to provide extra food for the summer. In June, a cow on good succulent pasture wi l need nothing in addition, but the dairyman is never safe who tries to go through the summer without a plot of sweet corn to feed in case of drouth, and for two or three months in the fall probably pumpkins are one of the cheapest and best supplementary foods. The intelligent, progressive dairyman is never caught napping; he does not try to see on how small a ration his cows can be carried through the year, but rather how large an amount of food he can get them to eat. One important aid to appetite and digestion is a regular supply of salt.—[N. Y. Tribune.

Time that Cows should be Dry before Calving.

A correspondent to an exchange writes:—I have been handling cows all my life and for the last twelve years have made dairying a specialty.

My experience is that when I find a *good* cow she, regardless of breed, is *always* a persistent milker. Give such cows a good liberal allowance of nutritious food and keep on milking them as long as the milk flows.

About half of our herd, of fourteen, were milked within from two to three days of calving. The calves always come bright little fellows, ready for their milk as soon as they can get it. One cow in particular gave four quarts of milk the morning before she calved, and fourteen quarts immediately after calving. The calf was bright and showed a strong ambition to live and grow.

It has been my experience for years that good cows with kind treatment, liberal feeding and nutritious food continued up to within a very short time of calving will do better than to dry them off and put them on one-fourth or one-half rations. It is needless for me to say that our herd under this treatment has as good a record for butter making as any herd in the State.

Butter takes nothing from the soil that affects its fertilization. It is almost wholly carbon, which is derived by the plants from the a r.

Prof. Stewart says that heating milk in a water bath to 135° will destroy the bitter taste caused by cattle eating weeds and other plants likely to produce this unpleasant condition.

To lead a stubborn cow put a rope around her horns in the usual fashion, and then pass it back of and around her ear, then forward and under the rope which goes around the horns, pulling the ear tight against the horn. When the rope is properly arranged the most stubborn cow will trot along nicely.

Why should not a man seek to get the highest per cent. of profit from the capital invested in his cows, the same as he would from an interest-bearing bond? Yet how few apply business principles as rigidly to cow-keeping as to investments for cent per cent of interest.—[Hoard's Dairyman.

Some practical dairymen have found that to resort to rather violent measures to dry off a cow that is a very persistent milker, ensmalls the cow's performance the next year. It is also true that very many of the copious persistent milkers, if left to give milk all the time, are worn out earlier in life. On the whole, it has been found that it is best to humor the nature of such cows, even if they are shorter lived. They are grand while they last.

Garden and Orchard.

Cultivating the Orchard.

At the Michigan Agricultural College, Prof. L. H. Baily, made some valuab'e experiments on the cultivation of orchards. They were conducted in the old college orchard which had been lying in sod for a number of years. The trees were all in an unthrifty condition, having almost entirely ceased to grow and bear. A large number of them were dead, principally the Baldwins Greenings and Fall Jennettings.

The first work of renovation was to prune the trees. This was done vigorously in May, 1885, the tops being made high enough in every instance to allow the passage of a horse in harness. All limbs, irrespective of size, which would interfere seriously with plowing and cultivating, were removed At the same time the tops of the trees were thinned considerably, though not to such an extent as to allow the sun to beat continuously upon the main branches. The trunks and main limbs, so far as a man could reach, were scraped, all the loose bark and "moss" being removed. This scraping was performed solely for the purpose of making the trees look better. It is a common observation that the most successful orchardist is the tidiest one. Care was taken not to scrape into the live bark The implements used for the purpose were old, well-worn hoes with the handles cut off about two feet from the blade. This implement should be held loosely in the hand, else it will scrape too hard.

As soon as the pruning was accomplished and the great quantity of brush removed, the ground was plowed, and plowed as deeply as possible. To be sure roots were broken, but this did no harm. The ground was cultivated at intervals with the spring-tooth harrow, and in August a second plowing, in the opposite direction, was made. No crops were planted. There was no effect produced upon the trees that year. The season's growth, if any, was well under way when the first plowing was made. The leaves continued yellow, and fell very ear'y, as usual.

In 1886 the same treatment was repeated. Nearly as much pruning was done as in the previous year, this time, of course, entirely in the top of the trees. Care was exercised, however, not to prune the tops so thin that the large limbs would be injured by the sun. The trees early showed signs of improvement. Although the summer was dry, the growth on all the trees was good and the leaves assumed a dark, vigorous color, and remained very late upon the trees. So marked was the improvement in the orchard that it was a subject of common ramark. A fair crop of apples, some 300 bushels, was also gathered.

In the spring of 1887 the orchard was again plowed, deeply as always before, and the sod was removed from all the trees by hand. The tops are now so high that the plow turned over nearly all the sod. The ground was now in good heart. The trees set were full of fruit, and no pruning was attempted. Although the trees had borne a heavy crop, and the season had been one of almost unprecedented drouth, the growth had been heavy. The bearing trees were about 140 in number, of which less than 100—all Northern Spy—are a prolific variety and produced apples which find a demand in market. There were a number of Sweet Romanites and others which could not be expected to return a profitable crop.

Over 1,800 bushels were raised and sold for $550; of these 550 bushels were cider apples.

The reason for so great a proportion of these was the heavy crop and the drouth, which rendered it impossible for all the fruit to mature. Thinning would probably have paid. The crop was remarkably free from worms. Old apple buyers declared that they had never seen so few wormy apples in a crop. This freedom from insects was due to sprayings of Paris green. A force pump was used for this operation. It was a double-acting pump and geared from a hind wheel of a wagon. A rough p'atform was made on the wagon, and upon this a kerosene barrel, with the pump attached, was securely fastened. One man drove and one handled the hose, which was about ten feet long. One side of a row could be sprayed at a time, and if the wind was right there was little inconvenience about the work. They experienced some difficulty in getting the motion right, but it was finally adjusted so as to be perfectly satisfactory. The motion must be tolerably rapid so that the team need not hurry by a tree too quickly. A flattened nozzle was found much more satisfactory. They felt the need of handy and rapid shut-off, in the case of vacant places in the orchard. An attachment was used which constantly agitated the water in the barrel, keeping the Paris green in suspension. (There are many hand force-pumps which can be procured cheaply, and which will answer all the purposes of this pump for small orchards.) They will endeavor to use this pump for spraying potatoes. They used a half-pound of Paris green to a kerosene barrel of water. In one instance they used three-fourths of a pound, but the liquid injured the foliage. In the same report we find the following:—

The apple industry is undoubtedly diminishing in many parts of the States. The old orchards are beginning to fail and new ones are not being set to any extent. Although prices for apples have been low for the last few years, there is every reason to believe that an orchard of moderate extent if intelligently managed, will add a reliable source of income to the general farmer. There is no doubt but that judicious pruning, good tillage and liberal manuring will maintain or restore the fertility of most orchards. There may be danger in vigorous orchards of carrying the cultivation so far that nearly all the energies of the trees will be directed to the production of wood. The grower must determine the culture which shall meet his requirements. It is true that in the great majority of cases, however, the culture is inadequate. Barn-yard manure, when it can be spared, is valuable for the bearing orchard.

Permanent sod is an injury. This has been proved in the experience of nearly every successful orchardist. It is forcibly illustrated in the instance of the old College orchard. In the earlier experiments conducted by Dr. Beal the same fact was emphasized. For some years he kept a part of the trees in sod, others were cultivated thoroughly, while still others were cultivated at varying distances from the body of the tree. Even as early as 1874 he found that "trees in grass made less growth, looked yellow in foliage, and bore smaller fruit and apparently less of it." In 1875 he observed that "the evidences look more and more strongly every year against the propriety of leaving trees, in our section, in grass. They have stood the severe winters no better; they have borne no better; the apples are smaller; the trees grow more slowly; a greater proportion of trees have died than of those cultivated each year.

Labels for Trees.

Very convenient labels can be made of strips of zinc. The name, if written on such labels with an ordinary pen, and a solution of sulphate of iron, will be very legible and lasting. The strip of zinc is then turned around a twig of the tree, with the name on the inside of the coil, to protect it as much as possil le. The tree will not be injured by such a label, as the latter readily yields to the growth of the twig. The name can be easily seen by opening the coil a little.

A writer in the Albany Cultivator recommends marking the names on similar zinc labels by a number of small holes punched side by side to show the name. This would be much slower to mark, and not much, if any, superior to the plan we have described above.

Tying Up Early Cabbages.

The tying up of the leaves of early cabbages, says Gardening Illustrated, is much practiced by the London market growers, and is one to be commended. The operation is a simple one, just, in fact, similar to that adopted in the case of Cos lettuces. The soft outer-leaves are folded carefully around the heart or centre of the plant, and the whole is bound firmly with a withe or piece of bast. There are several good reasons given by market-growers for this practice. The centre being protected from the weather, the cabbages heart sooner by two or three weeks than they otherwise would do, and they are more easily handled in gathering and packing for market. The plan is one that is seldom adopted in private gardens, but there can be no doubt that it is one that can be recommended, inasmuch as there is a gain of a week or two as regards cutting, and compact little cabbages are always preferable to loose ones which, moreover, are apt to get broken, or other, wise injured in gathering. It may be worth while to test this method with our early cabbages.

Mr J. S. Woodward says he has been successful in curiug the b ack-knot of plum trees, in its early stage, by the use of turpentine. He cuts off the knot and applies the turpentine.

Thorough pruning of gooseberry plants is said to be one of the most effective preventives of mildew. If the plants are planted in a semi-shady situation, all the better for them.

There is no doubt that tens of thousands of barrels of good fruit are every year wasted or thrown away from a want of system in marketing. Supplies are often sent to markets already overstocked, with a deficiency in other places, and no previous arrangement is made in advance for receiving and disposing of the surplus. An exception to this confused mode is given in the last report of the Pennsylvania Horticultural Association, by J. F. Smith, of Juniata county, whose annual receipts in the sale of the crops from his well-managed peach orchards amount to many thousands. About a month before the fruit ripens an estimate is made of the number of crates required of each variety, and then going to Altoona, for instance, responsible parties who handle fruit at that place are engaged to take charge of a certain number of crates of each named variety, to be delivered as they ripen. In small towns an agreement is made to sell to one, and to no one else, and none are sold at retail. It is of the utmost importance that fine fruit should be grown, and sent to market in the best condition, and that the grower should earn a reputation for supplying none but fruit of the finest quality.

Entomology.

Seasonable Hints.

THE CABBAGE CATERPILLAR.—The eggs from which these well-known insects are hatched are laid early in spring by a white butterfly. When the larvæ are full-grown they crawl to some hiding place to pupate, or form chrysalides, which have a peculiar angular form by which they are easily recognized. Remedies:—One of the old plans devised for their destruction is to place boards between the rows, slightly elevated above the ground. Under these the caterpillars will form their chrysalides, and can then be easily destroyed. The boards should be laid down as soon as the pest appears on the plants and should be examined at least once a week. Ice-cold water dashed over the cabbages at midday has been said to cause the destruction of these caterpillars by causing them to fall to the ground and preventing their subsequent ascension. As a general rule this remedy has not proved very satisfactory. Perhaps the best way known at the present time to get rid of them is to dust Pyrethrum or Buhach powder over the plants by means of a bellows, the muzzle of which (after being charged with the powder) is inserted among the leaves and a puff given with the handles. This operation is best done in the morning when the dew is on and the air is calm.

THE TURNIP FLEA BEETLE.—This lively insect is seen on almost all young plants, especially on those belonging to the cabbage family, perforating the young and tender leaves, and thereby retarding their growth and eventually killing them. Remedies:—These are numerous, but the greater majority of them almost entirely worthless. Among those that have given the best satisfaction may be named: tobacco water, air-slaked lime and a kerosene emulsion. Tobacco water, prepared by steeping the leaves in cold water for a day or two, is very effective for a day or two after its application, but then it loses its effect. The lime has given very favorable results for a longer time, especially in a dry season. The kerosene emulsion, prepared by beating together one gallon of kerosene, one gallon of water and four pounds of bar soap, has also given good results for a limited time; but while the tobacco water stimulates the growth of the plant, the kerosene emulsion retards it, if applied frequently. It should be diluted with about ten-parts of water.

THE CABBAGE PLANT LOUSE —This insect is closely allied to the plant lice infesting other plants. They are frequently seen on the cabbage at various seasons of the year, and inflict considerable damage to this crop. Remedies:—Tobacco water, made by steeping the leaves or stems in water, has done very satisfactory work, but the peculiar construction of the leaves makes it very difficult to apply. Pyrethrum powder applied with the bellows has also reduced the number of these insects; but among all the remedies tried at the New York Experimental Station the best results were obtained from the kerosene emulsion, described above for the turnip flea-beetle, diluted with sixty-four parts of water.

THE CABBAGE MAGGOTS are little white grubs which attack the roots of the cabbage plant, generally destroying the plants on which they feed. They have been effectually destroyed by Prof. Cook with a kerosene emulsion composed of one quart soft soap, one gallon water and one quart kerosene. This he has applied to the roots without injury to them, while an emulsion half that strength proved fatal to the maggots.

THE CURRANT WORM. — This insect first makes its appearance shortly after the leaves of the currant bushes are out. The eggs from which the young caterpi lars hatch are laid on the under side of the leaves, which accounts for their sudden appearance. White helebore is the safest and best remedy known to destroy them; one tablespoon to three gallons of water, applied with a watering-can, has been found strong enough. It is claimed that a mulch of coal ashes between the rows materially lessens the liability of the bushes becoming infested with this insect.

THE APPLE TREE BORERS.—There are two different species injuring the trees of this Dominion, but as the same remedies are applicable for both we may consider them under one head. The attacks of these borers may be observed by closely examining the ground surrounding the base of the tree, to see if any sawdust made by their boring can be discovered, which will be a sure sign of their presence. Dried patches of bark on a young tree should also arouse suspicion and cause a closer examination by removing the dried portion with a knife and searching for the enemy. The tree will generally present an unthrifty appearance, and die in the course of time if badly infested. Remedy :—Examine the trees in fall, and cut out, or destroy by piercing with a wire, all the borers A preventative is to paint the trunk and the larger branches with a soft soap paint in the first half of June and about the first week of July. The paint, which is prepared by diluting soft soap with a strong solution or washing soda till it has the consistency of ordinary paint, should be applied in the morning of a sunny day.

THE OYSTER-SHELL BARK-LOUSE, which is seen on the limbs of the apple tree in the form of small scales, about one-eighth of an inch long, can be best destroyed at the commencement of June, when the little lice have left the scale to search for some p'ace to "settle down for life," by applying the soft-soap paint recommended for the borers. The kerosene emulsion described for the turnip flee beetle, a lime whitewash and ordinary oil, have also been applied with success, the preference being given in the order named. Scraping off the scales in winter, with a hoe or some similar instrument, has also proved a success. Great care should be exercised not to introduce them into the orchard with young trees.

THE TENT CATERPILLAR.—During this month these insects may be seen in myriads on some apple trees They retreat to their nest or tent during the cooler part of the day and the night. Owing to this peculiarity they can easily be de stroyed by removing and destroying their nest when they are at home, spraying the trees with Paris green or London purple; half a pound to a barrel of water destroys these as well as many other insects feeding on the leaves and fruit of the orchard.

THE STRIPED CUCUMBER BEETLES.—These insects have been very destructive in some localities. The parent insects, bugs nearly half an inch long, with three longitudinal stripes on their upper surface, appear early in the season, and frequently attack the plants of the cucumber

family immediately after their appearance above ground. After the plants have made considerable growth they gradually disappear; but from their eggs have meanwhile hatched small white grubs which feed upon and perforate the roots of the plants their parents have not yet drstroyed. When full grown (about a month after they have been hatched, and when nearly half an inch long), they form chrysalides, near the field of their destruction, from which the perfect insects escape in about two weeks, to repeat the injury done by their ancestors. A large number of remedies have been tried, but all of them lack perfection. Paris green and white helebore have given the best satisfaction. The former should be applied in a little weaker form than that usually used for the destruction of the potato beetle. The best policy is, however, to use preventative measures; and for this purpose a wooden frame, covered with mosquito netting, placed over the vines before they appear above ground, is one of the best.

THE CODLING-MOTH.—This insect is one of the greatest enemies of the apple grower. The moth lays her eggs on the young apples just after they commence to form. The young grubs, which hatch in about a week, burrow into the heart of the apple, which they leave in about four weeks to form their cocoons in some sheltered spot, preferring loose pieces of bark or crevices on the trunk of the tree. From these the perfect insects escape in about two weeks, to repeat their work of destruction. Remedies.—The old and well-tried plan of placing bandages of paper, cloth or straw around the tree still gives good results. The bandages should be from four to six inches wide, and tacked or tied around the trunk of the tree, in the latter part of June, They should be examined nearly every week, care being taken to destroy all the chrysalides collected under them. All the prematurely-fallen fruit should be picked up and fed immediately after falling. This is best accomplished by pasturing the orchard with sheep or swine. Spraying the trees shortly after the fruit has formed, and about the middle of July, with Paris green; ½ pound to a barrel of water has been found to be one of the very best remedies.

Prof. A. J. Cook considers one pound of sulphate of copper, 10 pounds of quick-lime, two pounds of whale-oil soap, and two gallons of kerosene oil mixed in a barrel (31 gallons), of tar water (made by putting three quarts of tar in a barrel of water and letting it stand three days), an excellent mixture, for the destruction of insects, he says :—"Sulphate of copper has both insecticidal and fungicidal properties. The lime has the same in a mild way. While whale-oil soap is an exce lent insecticide, kerosene is even better. The tar water will certainly add to the value of the mixture, as it repels, if it does not actually kill insects. The soap, kerosene and water should be churned by pumping the mixture into vessels with a force-pump till an emulsion is formed."

In answer to a question how to destroy the onion maggot, Prof. Cook says :—Kerosene emulsion, if used early enough and persistently enough, will succeed. It will kill all it touches. But as they hatch every few days, you must use the remedy as often, and as the worms soon burrow into the substance of the onion or the radish, the application must be made before they have got in out of reach.

Poultry.

Vermin.

These are perhaps the most inveterate enemy of the poultryman. There are various kinds, but the greatest trouble is experienced with the hen lice, the large grey chicken lice and the little red mites. The hen lice are not at all difficult to eradicate; in fact, gross neglect is the only cause of their appearance in the poultry-house. If the perches are saturated once a month with a wash of carbolic acid, they will not appear at all. If they are on the fowls they will be found in the fluff, and may be easily destroyed by sprinkling sulphur among the feathers of the fluff and under the wings. Turn the hen up, that it may reach the skin at the bottom of the feathers. The large grey chicken lice are very much like the hen lice, but larger and of a different habit. They are found on the chicks at from two weeks to two months old. They locate on the back of the head and neck, burrowing into the flesh like a tick, often in great numbers. We have seen as many as forty on one little pate. If these once get a hold in a flock of chicks they must receive attention at once, or the loss will be great. A very simple and effectual method of getting rid of them is to take the mother hen, a short time before sun-down, and with a large sponge dipped in coal oil, then squeezed as dry as possible with the hand (don't be afraid of squeezing too dry), rub the feathers upwards or against the lay of the feathers, all over the lower parts and breast. This will give the hen a very strong smell of coal oil, and not leave the feathers dripping so as to harm the eyes of the chicks. They will in a very short time have their heads in the feathers of the mother for the night, and by morning not a louse will be found. It is best to do this once when the chicks are about two weeks old, and again when they are about five weeks old; and you need not look for lice, as there will be none to see after these two applications. Last, and although least in size, perhaps the most troublesome, are the little red mites. These usually appear about the middle of July, when the weather is very hot; and at that season half the poultry houses in the country have them in myriads. They may be found during the day on the under side of the perches, and in cracks and crevices convenient to the perches. They are bright red, colored from the blood with which they gorge themselves at night. They congregate in patches to such an extent that if the perch is flat they may be crushed *en masse* with a flat piece of wood into a bloody mass. A thorough application of coal oil will drive them away; but it must be thorough, or in a few days they will be as bad as ever. We have used a weak wash of carbolic acid and water once in two or three weeks for the last two seasons, and have not seen a single mite. The acid is preferable, as it acts as a disinfectant and destroys much of the foul odor peculiar to the poultry house.

A correspondent in the Country Gentleman writing about gapes says :—I have used a simple remedy for a long time—one that I have never seen mentioned. It is simply to put kerosene oil in the water, once in a while, not too much at a time—a person would have to use judgment about quantity. As soon as I notice a chicken, large or small, gaping, I give a dose in water. They do not seem to notice it. I have never lost any from the gapes.

The Apiary.

Seasonable Hints.

In the May number the importance of a superior quality of honey was touched upon. Too long the impression has been general that honey is all alike, and if consumers would learn to fear less adulteration and enquire more into the quality, their attention would be drawn to a point which requires closer attention. Adulteration is practiced but little in Canada ; the quality, however, can be vastly improved. The sources of honey are many ; that obtained from willow, poplar, fruit bloom, and in fact almost all until clover, is more or less inferior in flavor and color, it has, however, a very important use in stimulating bees to rear brood and also provide them with stores. The brood produces bees which are afterwards to give us our worker force in clover, thistle and basswood flow.

If more honey is gathered by the bees than is consumed by themselves and brood before clover harvest, it should be carefully removed so as not to mix with that which is classed as 1 A, and this inferior should never be mixed with the superior as loss will result.

We have now arrived at the commencement of the honey season, and the bees are gathering nectar from clover blossom. This nectar is, as we all know, a thin sweetish substance, but quite unlike honey. The thickness of it depends upon the season and time; in a very damp season it is thinner than when dry and the same directly after a rainfall. The bees then evaporate a great part of the moisture, this is done partly by spreading it over a large surface in the hive and partly by a peculiar process, namely : the bee takes up the honey through its organ for the purpose and then expells it again, removing a part of the moisture in the process, and this process is repeated again and again, the nectar undergoes the first process of digestion and is ready for assimilation. When the process of evaporation, &c., is completed the bees seal the cell and it is called ripe. In our greed for wealth we have put the honey extractor to poor use, and too many have extracted when the honey was unripe, in short, checked the process of ripening, and although the quantity was somewhat increased it was at the sacrifice of quality. Again, by too frequent use of the extractor the colony is deprived of all winter stores, and feeding must be resorted to in order to winter. Feeding should always be avoided by one who has not experience.

Many ask, "When honey is extracted, what must be done to make it fit for market?" All that is necessary is to strain it through a cloth, say a cheese cloth, and run it into vessels which will keep it free from all dust and filth. To preserve it in the best manner keep it in a hot dry room, a cellar is bad, so is a room off a hot room where all moisture condenses. Remember honey has a great affinity for moisture and it should be kept in a dry atmosphere. Tin vessels clean and free from rust are perhaps the best, as when honey granulates, unlike when in wooden vessels, it can readily be liquified.

The question is often asked, "How many times may I permit my bees to swarm?" It is an important question, but which can be answered about as easily as the question "How many lbs. of honey can I get from a colony." Beginners nearly always err by allowing too much swarming.

Let your increase be as little as possible and get all the honey you can. Honey means hard cash and you will be more likely to winter with success. There is no money at present prices in selling bees. Prevent increase by shade under a tree with high branches, not a low thick orchard, but a spot where vegetation will be strong and healthy, give them ventilation and see that they have sufficient room to store honey and you have the most effectual method of keeping down increase. Do not attempt to check the swarming impulse by breaking down queen cells unless it be after a first swarm has come off. If you are a farmer or cannot watch your bees get your wife interested in them, or, tell the children whoever sees a swarm come off first shall have five or ten cents, and the little ones will keep a keen eye upon the hive and perhaps save you the profits from a colony. To loose a first swarm almost means to loose your honey crop for the season from that colony.

Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. If an answer is specially requested by mail, a stamp must be enclosed. Unless of general interest, no questions will be answered through the ADVOCATE, as our space is very limited. 3. Do not expect anonymous communications to be noticed. 4. Matter for publication should be marked "Printers' MS." on the cover, the ends being open, in which case the postage will only be 1c per 4 ounces. 5. Non-subscribers should not expect their communications to be noticed. 6. No questions will be answered except those pertaining purely to agriculture or agricultural matters.

Correspondents wanting reliable information relating to diseases of stock must not only give the symptoms as fully as possible, but also how the animal has been fed and otherwise treated or managed. In case of suspicion of hereditary diseases, it is necessary also to state whether or not the ancestors of the affected animal have had the disease or any predisposition to it.

In asking questions relating to manures, it is necessary to describe the nature of the soil on which the intended manures are to be applied; also the nature of the crop.

We do not hold ourselves responsible for the views of correspondents.

Legal Question.—1. A, a farmer, by agreement in writing hires B. The agreement states that time, place and manner of work is to be determined by A. Is B compelled under this agreement to do chores at all, and especially on Sundays? 2. How much alfalfa seed is required per acre? How should it be sown?—C. G. K., Ancaster, Ont.

[As a general rule, a servant who engages to work thereby undertakes to do all usual and necessary work his master may require, and to obey the lawful commands of the master, and be honest and diligent in his master's business. A farm servant under this general rule is bound to do all such work as chores, either on Sunday or any other day, if required to do so by the master; and generally, a farm servant has no right to claim any Sundays or holidays off at all; as he must have known when he entered into the master's employment that certain chores and works of necessity must be performed on every day in the year, and unless special stipulations are made to be allowed certain days off, the servant cannot claim Sunday or any other day. Of course any special agreement, either written or verbal, as to do only certain kinds of work or to have certain days off would over-ride the general rule. In the case stated above, B is clearly bound to do all necessary reasonable chores whenever required so to do, on Sunday or any other day, and should he refuse or neglect to do so, he may be dismissed, and is liable to an action for damages, and cannot recover wages due. 2. For particulars concerning alfalfa, see article on "Grasses and Clovers," in the April and May issues.]

Threshers.—Would you inform me where I could get a threshing machine which can be driven by four horses?—L. B. G., Letellier, Man.

[John Larmouth & Co., of Montreal, P. Q., manufactures a first-class thresher and tread-power.]

Swollen Udder.—I have a young mare that has never had a foal yet, the glands of her bag swells and the swelling extends all her belly.—J. W., Teeswater, Ont.

[Give a purgative ball, Barbadoes aloes, seven drachms; follow up by giving alternately night and morning, nitrate of potash, one drachm; iodide of potassium, one drachm; bathe the bag where it is swollen with hot water and vinegar, equal parts, twice a day; let her have plenty of exercise. If she is in high condition reduce her by giving less food, do not feed her on soft or sloppy food.]

What is the matter with my bull? and how should he be treated? He is about 16 months old. Some time ago I noticed he commenced slaubering, especially when he was eating, he could not eat whole turnips well. Now his tongue is considerably swollen, and seems to be very painful, causing difficulty in eating.—J. W., Marsh Hill, Ont.

[We would advise a dose of purgative medicine, one pound of epsom salts twice a week, dissolved in a quart of water and given as a drench; give a drachm of potassium iodide, night and morning, either with a spoon well back on the tongue, or in his feeds; perhaps the former would be the better way, as then you are sure that he has taken it. Wash the tongue with warm water and apply the following lotions alternately, one at night and the other in the morning: Powdered alum, 2 drachms; water, one pint, for evening; tincture belladonna, four drachms; water, one pint, for morning. Each of these mixtures will last for some time. In the application of these use a stick with a swab on the end, pour the mixture in a cup, in this dip the swab and apply. A convenient way to make the applications is to raise the bull's head by his ring, open his mouth and place between his jaws an ordinary clevis, of such a size that he cannot readily eject it; put it in flatwise as you would a bit, then raise it to the perpendicular. This will pry his mouth open and keep it so. The swab can be readily passed through the opening in the clevis. Before swabing, his mouth should be washed free of saliva with warm water. Let his food be soft, nutritious and easily digested. It would be well to scarify the tongue with a lancet every second day, making say about six to ten cuts on it each time, drawing the blood freely.]

Black Knot.—Can you tell me any way to prevent or destroy black knot? I have lost all my plum trees, and my cherry trees are badly affected.—J. D., Oakwood.

[The black excrescences on the shoots and limbs of some plum and cherry trees are produced by the spores of an internal fungus, but supposed by some the work of an insect, or the result of diseased sap or cells, or regarded as a sort of vegetable ulcer. They have been by some attributed to the curculio, an opinion originating from the occasional detection of this insect within the pulpy excrescences, but entirely disproved by the facts that the curculio has existed in vast numbers in neighborhoods where the excrescences are unknown; and on the other hand, that the excrescences have ruined trees in places not infested with the curculio; besides which, the most rigid search of newly-forming knots has failed to detect the eggs or larvæ of the curculio, which are only occasionally found when deposited at a later stage in the pulpy swellings. Sufficient evidence appears to have been furnished to prove that a tree, badly diseased, is infected throughout with the poison; as suckers from such a tree will always, sooner or later, become affected. Buds from diseased trees, placed in healthy stocks, soon exhibit the excrescences. But seedlings or suckers from a healthy tree usually escape, unless in near proximity to unhealthy trees. The remedy for this disease is certain and efficient, if vigilantly applied. It consists in cutting off and burning all the excrescences as soon after their first appearance as practicable. If the tumors, however, break out on the trunk or main limbs, it may be difficult to do this without cutting away the whole tree. As much of the wood is therefore to be cut out as may exhibit indication of disease, and the wound washed with a solution of chloride of lime. The only instances where the remedy has failed, is where it has been but occasionally applied, or where the disease has been suffered to spread for a time unchecked. The only way is to cut, and continue cutting, so long as any traces remain. As a general but not universal rule, the yellow plums are not so liable to excrescences as purple varieties, unless surrounded by diseased trees. Last June, Mr. Little, of Lambeth, bored three-quarter inch holes in some of his cherry trees; these he filled with flour of sulphur, plugging the hole tightly with a limb cut from the same tree. The plug was trimmed off even with the bark, which soon healed over the wound. The trees thus treated have no black knot on them this year. Those not so treated are affected as usual.]

The Time to Prune.—There is a great diversity of opinion concerning the time when trees should be pruned. When is the proper time?—J. D., Port Perry, Ont.

[As soon as the blossoms have disappeared is the time to prune your trees. An orchard of large trees near London, Ont., were totally destroyed and had to be dug up, as the result of cutting off large limbs in the winter and spring, the wounds rotting and causing decay of the trunk. A leading farmer in Middlesex County tried the experiment on one of his trees, of cutting a limb off at each of the seasons spoken of, as a proper time to prune. He found the month of June, soon after the blossoms had fallen, by far the best time. Wounds made then healed over rapidly, and did not cause the trunk to decay. Those cut in the winter and early spring caused decided damage to the tree.]

Cranberries.—Please give me your opinion on the culture of the cranberry. I want to know if they can be grown on a beaver-meadow I have, containing about five acres, which in the spring is flooded by the lake. With little expense a dam could be made, to flood it at any time should it be necessary. I would like your advise in the matter; and, also, how and when to plant and cultivate them. An answer through your reliable paper will much oblige.—W. A. C., Cecete, Muskoka.

[The cranberry is a plant which naturally grows on wet, spongy soils, but is also cultivated with moderate success on drier and firmer ones; on heavy soils it has, however, proved to be a failure. Therefore, if your meadow is of a heavy nature it will not give as good returns as one containing more vegetable matter. The aspect of your meadow is very favorable, for it is of great advantage to be at all times able to submerge the cranberry patch under water, and the quicker this can be done the better the prospects of a good crop will be. This sheet of water serves a two-fold purpose, namely, that of protecting the plants from the frost and from injurious insects, which are very liable to attack the fruit and vines. The meadow should be flooded in fall, when "Jack Frost" makes his appearance, and kept covered till late in spring. During the blossoming time it should, however, be laid dry, for the water destroys the polen, and, thereby, the crop for that season. The vine-worm or fire-worm, and the fruit-worm, which affect these plants and their fruit, are effectually destroyed if submerged under water, and may therefore be successfully overcome by flooding the plot; but, as their ravages are great, a rapid submersion is required. A valuable cranberry patch may be prepared from a swampy place by leveling its surface, cleaning it from grass and weeds, and covering it with two to four inches of pure sand, ditching it to lower the water to twelve or eighteen inches below the surface, and planting it with cranberry plants. These are generally set out with a dibble, and the soil firmly trampled around the plant; but sometimes cuttings are taken, one end of which is simply pressed down by some blunt implement, through the sand to the underlying mucky soil. The plants are placed in rows, from one to two feet apart each way. All the plants should reach the former surface of the plot, and if planted in a slanting position, so much the better. The plot should be kept cultivated for a year or two, or until the cranberry plants have taken complete possession of the soil. The cuttings may be preserved for a long time if packed with wet moss in boxes and preserved in a cellar, or if covered with earth in a shady place. If dry they should be soaked in water before planting, which completely refreshens them. They strike root very easily at the joints which come in contact with the soil. Planting is not specially confined to one portion of

the year, but may be successfully done in fall or spring; the end of June is the limit for spring planting, and the approach of cool weather marks the commencement of the autumn planting. The sand is used to prevent the growth of weeds, to retard the too luxuriant growth of the plants, and to increase their productiveness. It is easiest applied on the ice in winter. The dam at the lower part of the patch should be high enough to allow the plot to be covered eighteen inches deep with water, and should have flood-gates where the ditches cross it. The cultivation is generally most economically done with a wheel-hoe, for horses can rarely work in them. They require no fertilizers; and the cost of picking has been estimated at 50 cents per bushel. There is a great difference in varieties, and only such should be planted as have proven themselves worthy in some other patch. There is a good demand for large, well-colored berries, at prices ranging from two to two and a-half dollars per bushel. The fruit, after being picked, should be placed, a few inches deep, on shelves, and stirred frequently to expose all of them to the light, which gives them a fine color. They are then run over a fanning mill, to separate them from all foreign substances, after which the small and worthless berrics are picked out.]

Reports on Entomology and Canadian Forestry.—Will you inform me if either the Ontario or Dominion Government issue reports on (1) Entomology, or (2) Canadian Forestry? Where can I get information regarding the extent of "Canadian Agriculture" in all its branches, giving figures, &c.—S. A. L., Binbrook, Ont.

[The Dominion Government has only published one or two small reports on Entomology, written by Mr. Fletcher. A report of his as the Entomologist of the Experimental Farm, has just appeared. It is an appendix to the Report of the Minister of Agriculture. The Dominion Government have not yet, as far as we know, published anything on Forestry further than what has appeared on the destruction of trees in the Reports of the Geological Survey. In the numerous reports of the Entomological Society of Ontario there is a large fund of information on this subject of Entomology, and some of these reports may possible be obtained from the Minister of Agriculture for Ontario; but many of them are out of print. The Ontario Government has also issued several reports on Forestry, prepared by Mr. Phipps. These may be had from the Hon. Mr. Drury also. The Bureau of Statistics, conducted by Mr. A. Blue, of Toronto, has issued a number of reports giving information on Canadian Agriculture, as far as Ontario is concerned. The imports and exports of agricultural products will be found in the Annual Reports of the Minister of Customs, Ottawa.]

Commercial.

FARMER'S ADVOCATE OFFICE,
June 1st, 1888.

The month of May now past has been a peculiar and trying one in many respects. April was cold and May has been both cold and dry, conditions unfavorable to winter wheat and meadows. So much so that a good deal of fall wheat has been plowed up and sown to spring grains. The hay crop will be a very light one unless we get ten days or two weeks showery weather, and that very soon.

The acreage sown to barley this season is far in advance of former years. Should the season prove a favorable one the crop handled by grain dealers will be large and the early sales and shipments will probably be the most remunerative.

Spring wheat has almost dropped out of the list of crops grown by farmers in the western counties.

Peas are largely sown and are looking pretty well considering the cold weather. They will stand cold and frost better than any other crop.

Ensilage, or fodder seed corns, is becoming an important factor in the list of crops put in by the stock and dairy farmers. The sale of seed corn has assumed, we might say, immense proportions the past few years. One firm in this city will handle over 10,000 bushels to be sown for fodder this season.

The spring has been all that could be desired for putting in the seed, and should we even at this late period get ample showers and warm weather crops will soon assume a very different appearance.

WHEAT.

The past few weeks have seen a decided improvement in the wheat markets of the world, and we may see a further advance before new grain is ready for the miller. The fact is wheat has really been below its real value for the past three months, and, had the markets been allowed to follow their natural course, we should have seen a decided improvement two or three months ago.

The condition of the winter wheat is not what might be desired. The U. S. Government report gives the average condition of this crop at 73. On this basis, taking the average yield of the past five years, this would indicate a yield of 10 bushels per acre, which would mean a shortage of some 70,000,000 bushels in the crop of 1888 as compared with the crop of 1887.

From reports of farmers and our own observation we are led to the conclusion that the cause of a good many of the inferior wheat fields are due to causes within the control of the farmers themselves and the sooner they are alive to this fact the better it will be for them. The requirements are more manure or fertilizers; more underdraining and better tillage. Proper attention to these conditions would increase the yield per acre 25, and, in some cases, 50 per cent., and possibly in others 100 per cent.

The Michigan crop report for May 1st says that only a few fields of wheat promise even a fair average yield. Compared with vitality and growth of average years the southern counties represent 65; central 67, and for the whole State 68, the latter comparing with 89 in 1887, 91 in 1886 and 100 in 1885.

The position of wheat is being recognized in the speculation markets, and values have lately reached a higher point. Not only in America is the trade awakening to the condition of wheat but gradually the foreign markets are coming to know, beyond question, that the reports of shortage in the production this season are based on facts and not on fiction, desired for influencing values.

The following compilation shows the range of the May option for wheat at Chicago during the months mentioned:

	Opening.	Highest.	Lowest.	Close.
October, 1887	79¼	79⅞	77⅛	78⅞
November	78¾	84⅜	78⅜	84
December	84⅝	86⅞	84⅜	85⅞
January, 1888	85⅜	85⅝	81⅜	81¾
February	81¾	82½	79½	80
March	80⅜	81¼	76⅛	77⅛
April	77¼	82¾	75⅜	81⅝
May, to date	81⅝	88⅛	80⅞	....

LIVE STOCK.

The Montreal Gazette reports the British live stock markets as follows:

Our cables to-day were weak, unsatisfactory and discouraging, and conveyed the information that the present markets were bad and that the immediate prospects for improvements were not bright, in fact lower prices were anticipated before long. The first Liverpool steamer from Montreal, the Lake Huron, with 620 head, missed the market in Liverpool to-day, hence the value of direct cattle could not be cabled, but it looks as if 12c to 12½c would cover it. The adverse conditions that affected the market to-day included hot weather, holidays and more stock offering than the market could take, although receipts of States have been light. The supplies from other quarters were fully ample for requirements and trade dragged slowly, with demand uncertain and feeble At Liverpool prime steers were at 12½c; good to choice 12c; poor to medium 11c, and inferior and bulls 8½c to 10c. These quotations are calculated on the basis of $4.80 in the £. A private cable quoted States at 5¾d to 5⅞d. Refrigerated beef in Liverpool is cabled at 5¾d for hindquarters and 4d for forequarters per lb., while London cables 3s 8d for hindquarters and 2s 8d for forequarters per 8 lb. by the carcass.

Following were the receipts in Montreal by the Grand Trunk railway from May 1 to May 19:—

	Cattle.	Sheep.	Calves.	Hogs.
1888	6,368	123	2,026	1,825
1887	7,968	616	2,100	3,436
1886	8,172	899	1,491	3,007

Receipts by the Canadian Pacific railway from April 1 to May 19 were:—

Cattle.	Sheep.	Hogs.
4,424	376	1,054

The ocean freight question has continued to figure as a prominent feature in the cattle export trade. There can be no doubt that rates are being maintained by some of the leading lines, while many cattle shippers refuse to ship by these lines and are doing their utmost to encourage outsiders, whose space they can obtain at considerably cheaper rates, and rumor has it that Boston freight will be engaged rather than accept dictated terms, even though the Boston shipments would be slaughtered on landing. The regular lines are quoting 60s to 65s, with insurance, but on the other hand the Obock of the Bossiere line has been at 46s, without insurance, to Southampton. Other space has been secured at 50s to 55s. The fact is that the freight markets are in a most unsatisfactory state, and many shippers appear determined to patronize the smaller lines.

CHEESE.

The make of May cheese has been light owing to the cold, backward season. Cows are not in first-class condition owing to the scarcity of feed and high prices. In some parts of York State the supply of feed for cows was exhausted and they had to be turned out to pick their living as best they could. Should the season prove favorable later on we will see a very heavy make, as the increase in factories and expansion and enlargement of the old ones would clearly indicate this. Another condition that will tend to increase the make, is the high price of cheese the past two seasons and the low price of butter. Even the creameries have hard work to hold their own against the cheese factories, and they are making some 6 to 8 cents over the price of good dairy butter.

The question has been repeatedly asked us, what are the prospects for cheese the coming season? To these questions we can only say that a great deal depends on the amount made; the quality and the prices at which summer goods are moved out and allowed to go into consumption. The truth is that speculation has nearly as much to do with the price of cheese now-a-days as with that of provisions and grain. Supply and demand that used to be the criterion by which prices were determined are only secondary considerations now. They help to strengthen the position of the bulls or bears, but they do not exercise the legitimate influences which they formerly did. Last season's business was an example of this. Everybody knew or might have known that the production of summer cheese was very large. But a good many dealers became buyers of summer cheese at high prices, and rather than accept a loss in the fall, they maintained prices, and carried their stock right through till spring, peddling out as much of it as they could during the winter. The loss had to come, however, and it will probably never be known how many thousands of dollars have been dropped in the last six weeks on old stock, that has been closed out for anything the owners could get. Piles of it have been consigned abroad, and sold at auction as well as at private sale.

BUTTER

maintains itself remarkably well. Supplies each week are fully taken up and this keeps the market steady. State creamery pails are quoted at 26c. and State dairy at 25c. Lower grades run down to 20c., but it is seldom that anything, however poor, sells below that. There is no doubt that the strict enforcement of the law against oleo. has kept butter from declining this spring. It is early yet to give any forecast of the market for this article. The increase in the patronage of the cheese factory will no doubt help to steady the market for dairy butter.

In New York butter is quoted at 22 to 26 cents per pound. Eggs 16½ cents.

In Montreal prices are as follows:

Cheese—The result of last week's trading has probably been to put cheese down a quarter of a cent for outside values. The cheese that is being sent in to this market is not being taken up very briskly. Shippers supply their needs in the country. We quote at 8½ to 9 cents.

Butter—A sale of fine townships for the lower ports is reported at 19 cents, and it is almost impossible to make more than 20 cents for the finest. We quote: Fine new townships, 19 to 20 cents; medium, 17 to 19 cents; new Western, in rolls, 18 to 20 cents; in tubs, 17 to 18 cents.

Eggs are quoted at 14 to 15 cents, with a well-supplied market and prices declining.

In Toronto, butter is quoted at 18 to 22 cents for pound rolls and 14 to 16 cents for large rolls. The combine sold eggs at 12½ cents, but outsiders got 13 to 14 cents. The former are, it is said, paying 12 cents in the country, and in selling at 12½ cents are making a loss of 1¼ cents.

A NEW YORK VIEW ON BUTTER.

Messrs. David W. Lewis & Co., of New York, write as follows in the Utica Herald: "It was the coldest April in 17 years, and appears as though it would be the coldest May within the memory of man. Stock in many instances is turned out this spring about as thin as we ever saw it. This cold weather and scarcity of fodder, may be the underlying cause of the light receipts here, which has kept the prices up and the floors bare of butter. There are no low grades here, and next to nothing with which to supply Central American, African, West India Island and other low grade trade. Legislation as to oleomargarine has put up the price of low grade butter here above its value in other countries, and may lose to us this trade, which formerly depended upon the odds and ends of our market for its supply. Legislative interference with the natural laws of commerce may be classed with 'curses that come home to roost,' and it really does not seem to have been worth while, for the sake of putting up the price of butter, to kill off and destroy this outlying low grade butter business, which added its proportion to the prosperity of the general dairy interests of the country. The four cent gold duty on Canadian butter is another legislative helper which has acted as a stopper upon Canadian dairy butter production, and stimulated that country into the combination cheese factory system, under which they compete with us with a quadrupled competition in the English markets. That congressional legislative act has come 'home to roost' after it has in part bred a cheese production in Canada which is sharply rapping us over the knuckles. We wouldn't have this Canadian dairy butter coming across the line, and its forceful volume of milk has quadrupled and it now, in the shape of cheese, stands up for its rights in the Liverpool and London markets in sharp competition with us."

It may not have been conclusively proved, says Hoard's Dairyman, that it costs as much to produce a pound of dressed beef as a pound of butter, when all the beef of an animal is reckoned; but we have no doubt at all that it costs more to produce a pound of sirloin, or best round steak, than it does to produce a pound of butter on the same soil. Besides this, the beef animal is dead and done for, and the cow is on deck, ready to repeat the process.

Family Circle.

MYSTERIOUS MISS ALISTER.

BY THE AUTHOR OF "A WILFUL YOUNG WOMAN."

"Wanted; a lady of refinement and education, as companion to an invalid during the next twelve months. Age under thirty. Salary liberal. Duties irksome."

This was the advertisement the Denbighs put in a morning paper, when the "office" sent them hastily off to Lisbon for a year, and left, as mistress of their pretty place in Surrey, Mrs. Denbigh's delicate widowed sister.

There was no posibility of Mrs. Dwynne going with them. Doctors and common sense said "No" to that, so at Ashby she prepared to stay, and the only arrangement to lighten her solitude their united wits could contrive was embodied in the lines above quoted.

The invalid herself insisted on its last clause, so the Denbighs counterbalanced it by its forerunner; and either the bane was not sufficiently alarming or the antidote was overpoweringly attractive, but the morning after the notice appeared, no less than sixty-three answers were piled up on Mrs. Gwynne's breakfast-tray.

"Oh! to think I must disappoint so many," lamented the kind woman, regretfully laying aside some half-hundred missives; "I should like to send all these a little present."

"Nonsense, Mary!" laughed her practical sister-in-law; "*do* keep your thoughts to the point. Which of these odd dozen do you think seems likeliest to suit?" And cogitation presently determining on three, that number by the end of the week reduced itself to one, who might really have been made to fit the situation.

She was twenty-eight; undeniably a lady; graceful and quiet. Clever, by the amount of her accomplishments; and the highest references from families in different parts of England testified that Miss Alister had always quitted them of her own free will, and invariably to their regret.

"Indeed, I am afraid you must be fond of roving," said Mrs. Gwynne to the young lady, smiling up at her in a peculiarly winning way of her own. "I hope you will not be running away from me before our year together is completed."

The color rushed over Miss Alister's face. Her eyes sank. "I will not go, I assure you," she said, most earnestly, "if I can anyhow remain. Oh! I hope I shall not have——" then she stopped in confusion, which puzzled Mrs. Gwynne.

"Perhaps she is not sure whether I shall be too irksome," was her after-comment to her sister. 'I hope it's not that, for though I can't quite make her out, I really like her very much indeed." And this comfortable conclusion arrived at, preparations were pushed forward, and a fortnight later saw the "Lindens" left to the care of the widow and her new companion, "mysterious Miss Alister."

It was rather too bad, but so Mrs. Gwynne's friends, playing on the note of her first impression, persisted in calling the young lady, and between jest and earnest many were the inquiries made in gossiping little Ashby as to whether the new-comer had extended any confidence to her employer as to home, relatives, or antecedents of any kind.

The widow, though the mildest of women, became rather exasperated after a time by this influx of innuendo and surmise, and felt somewhat worried at not being speedily able to announce that she knew all about Miss Alister's history, and it was as commonplace as most people's. This pleasure, however, evaded her grasp precisely as her companion made her desire it. Every day Miss Alister won upon her regard. She was so thoughtful, so patient, so ungrudging in care and tenderness, when hours of suffering imprisoned Mrs. Gwynne to her couch: so ready to catch the first signs of returning ease, and lure them on by cheerfullness or music—her voice was singularly sweet and sympathetic so entirely, yet unobtrusively, the womanly friend the invalid needed, that Mrs, Gwynne was ready to unveil all her own life to her companion, and yet—and yet to her chagrin, no answering candour was she ever able to extract. Provoked though she felt at the conclusion, she was driven to confess Miss Alister *was* mysterious!

It was February when this companionship commenced. By May not one iota nearer knowing anything of Miss Alister's story—if story she had—was poor Mrs. Gwynne. Then something occuurred which increased her curiosity.

Up to this time no letters had arrived for the young lady; now three arrived by three successive posts: all—Mrs. Gwynne could not help seeing as she emptied the bag—in the same masculine handwriting; all from London, E. C.

With each of these communications Miss Alister's spirits seemed to sink. The steady cheerfulness Mrs. Gwynne, invalid fashion, was beginning to lean upon, for the first time failed her. The effort to preserve her usual front was too patent to pass unnoticed, and on the fourth morning, when Miss Alister's pale face betokened downright fear of the letter - outward facsimilie of the other three—handed forth to her, Mrs. Gwynne could keep silence no longer.

"You have a persistent correspondent, if you will excuse my saying so," she remarked, handing out the unwelcome missive. "I hope your letters are not unsatisfactory, Miss Alister; but really you have not been looking yourself for a day or two."

Miss Alister, with changing color, was glancing through her communication. Now she crushed it nervously up, gave one hasty look at Mrs. Gwynne's pleasantly anxious features, then seemed to take some quick resolve.

"I am quite well, thank you," she said slowly. "My letters are—only what I was suspecting—but"—crimsoning as she turned her head away—"will you mind my making an unreasonable request?" ("Wants to go!" thought poor Mrs. Gwynne, in dismay.) "I have not been quite three months with you, but would you mind my having a quarter's salary? I—I—want it."

"My dear girl, you can have it and welcome," answered the widow, immensely relieved. "Would you like a cheque or notes best?"

"Notes," faltered Miss Alister, with unnecessary shyness.

"Notes you shall have, then, directly after breakfast—and, pray, if you want anything else in *any* way," emphatically, "do ask me directly, for I feel I cannot repay half you do for me with mere money." And the kind woman, thinking some little outstanding accounts at her last situation must be at the root of this embarrassment, stooped to bestow a re-assuring caress on Miss Alister's close-clasped hands. To her surprise they trembled, so did the voice in which the earnest thanks were spoken. A pair of eloquent eyes looked up, as though they longed to tell the secret of this agitation; but mutely they fell again, and Mrs. Gwynne felt more mystified than ever.

That same evening Miss Alister brought Mrs. Gwynne a tiny case.

"Will you keep this for me?" she said timidly. "It was my mother's. If—if anything should happen—if I could not fulfil my time with you, I think it would repay what you have advanced me."

"My dear," cried Mrs. Gwynne, "I want no such security; why, this pretty ruby ring is worth ever so much. I won't have it. Keep it yourself. As it was your mother's, you ought not to part with it,"

"Please take it for a little time," Miss Alister pleaded. "I feel as though it—as though I—were safer so;" and she was so urgent that Mrs. Gwynne yielded, and with amiable cunning turned from the subject with the question—

"Is it very long since you lost your mother, Miss Alister?"

"So long, I barely remember her," was the answer.

"And your father—— ?"

"Died just a little sooner."

"Poor girl! But you had rela ives to live with?" (Mrs. Gwynne felt she was getting on now.)

"None near enough to wish for me."

"So who took care of you?" questioned Mrs. Gwynne boldly.

Her companion turned upon her a wistful smile, that softened her regular features into rare beauty.

"Some one was found for me," she said; "some one always has been. We had little money, for my father's living was small, and——" a confused blush filled in the pause—"but a distant cousin sent me to school. I was there till I could support myself."

"And have you no sister or close friend?"

"No, oh no, fortunately not!"

"My dear, why fortunately? You would be surely happier with some one belonging to you."

Miss Alister's grave smile faded. She opened a magazine,

"It is time for me to read to you," she said, and began forthwith, Mrs. Gwynne listening with divided attention, deeply desirous for friendship as much as for curiosity's sake, of discovering what was the background of this attractive young woman's life.

After that episode, however, no more letters disturbed the placid life at the Lindens. Summer glided by without furnishing more food for Mrs. Gwynne's suspicions than the rather curious fact of her companion's wardrobe being as sparingly replenished as if she were receiving the wages only of a housemaid. "Still, with no home or fortune, perhaps she is right to save," thought Mrs. Gwynne; and indeed the dark, noiseless cambrics did well enough for a nurse, which was what Miss Alister really was through hot July and August, and week after week the companion earned her salary with a care as devoted as if it had been paid with affection instead of gold.

"But you must *make* me get well now," cried Mrs. Gwynne excidedly one morning, as Helen Alister entered her room; "for my brother Herbert is coming back from India for six months; he is colonel now, and the dearest lad—oh, what nonsense! I forget I am nearly forty and he is two years older. My husband was his great friend out in Calcutta. What he was to us through that—that dreadful time, and when my health broke dowr, none can tell. Now I feel as though it will make me strong to see him again. We must find him lodgings near, and get ready for him. And oh, Miss Alister—— !"

"Yes?"

"*Do* allow yourself a pretty dress or two! Though he is an old bachelor (he never fell in love in his life), yet he has a keen notion of how a woman ought to look; so shall you and I go shopping next week?"

Miss Alister blushed. "Yes if—if you wish," she stammered; "if—if—that is, when you kindly give me the money.

"Why, good gracious! what have you done with last quarter's?" Mrs. Gwynne was nigh exclaiming. Luckily she stifled the words, and in the hurry of preparation for her brother, lost sight for a time of the strange impecuniosity implied by her companion's remark.

With the first week of September came Colonel Grant to the Lindens, and a new element entered

Helen Alister's life, creeping into it, as such things do, all unawares.

Just what his sister called him, "as good as gold," this new-comer might have made choice of a wife long before if his standard of womankind had not been higher than most men's. But through long service this bachelor officer showed no symptoms of changing his estate till leave of absence sent him to Ashby, there to find located by chance the very woman he seemed to have waited for through years and years.

Unpractised in the art of love-making, Mrs. Gwynne's brother walked serenely on the road whither his candid admiration for his sister's companion led him. The widow unwittingly ministered to the situation by insisting on Miss Alister's sharing every hour of the colonel's society. "She shall not feel she is friendless if *I* can help it," was her grateful thought. It was not in feminine nature to resist the influence which grew about her. Helen Alister felt in the deference of Herbert Grant's voice, in his watching for her glance, his waiting for her words, a new, delicious thraldom, which to know by its right name was to know herself most miserably.

(To be continued.)

Trusting Souls Always Hope's Music May Hear.

DART FAIRTHORNE.

Weary, so weary of snow and the sighing
Of wintry cold breezes and leaden-dull skies;
The Pines chant a requiem down in the forest,
The Hemlocks droop low and the river replies.
And this is the burden the Pine trees are chanting,
And this is the answer the rivers return;
No more through the earth do the warm breezes loiter,
No more in earth's bosom do summer-fires burn.

The flutter of bird-wings has ceased, and the singing
Of blithe summer breezes no more do we hear;
No Rose sends its fragrance, like incense to heaven;
Earth's pulses beat slowly,—the winter is drear.
Like castinets clatter the icicle fringes,
The crystals shoot sharply and clear through the morn;
In mockery grim shine the dazzling frost-jewels
Of the warmth and the light which in summer are born.

Perceiving, our hearts sigh with pitiful yearning
For warmth and the joy which aforetime was ours;
Far more neath the winter's white snow-drifts are buried.
Than summer's sweet incense, her birds and her flowers;
There are joys that have perished, and hopes that are blighted,
And friends passed away whom no more we shall greet;
And faith and affection have hidden their blossoms
Beneath the white snows that time casts at our feet.

But, hark! through the river's monotonous moaning
An undertone deepens and breaks on the ear:
"The earnest soul finds in the world what it seeketh,
And trusting souls always Hope's music may hear.
O'er head shines the same sun that gladdened the summer,
And time's golden cycle shall bring us again
The Rose and the Lily to gladden the garden,
The Daisy and Cowslip to dance on the plain.

"Again shall our hopes and our dreams rise in beauty,
As tender-eyed Violets spring from earth's breast;
And faith and affection anew ope their blossoms,
The brighter for lying a season at rest."
Deep down in earth's bosom warm pulses are stirring,
Not long shall the winter now hold us in thrall;
Again shall our hearts know a summer of gladness,
So trust ye, sad heart, for there's One who guides all.

A simple silver plate or dish in low shape takes the place of the old covered butter-dish.

The centre of a dinner table for company dinners is usually occupied by a round vial or square mirror in a plush frame, on which is set a large, low bowl, or basket of cut flowers or growing ferns.

Strawberries are often served in little wooden baskets with the stems on. The baskets are placed on a silver salver, and each guest helps himself when handed to him. It is not good form to use either fork or spoon when the stem is left on; simply dip each berry in sugar, and convey it to the mouth in the fingers.

Minnie May's Dep't.

MY DEAR NIECES:—Having given some general hints to my readers in my last letter regarding raising flowers for market let me suggest another industry which I have often wondered was not developed by farmers' wives and daughters. Many a housekeeper would gladly purchase a loaf of home-made bread were it to be had in the market, but I never have seen it. As the best of flower is to be had now for six dollars per barrel why not try your hand and establish a reputation for bread making, of which any young woman should be proud. Enough cannot be said against the generalty of bread found in farmers' homes. It is sour, badly baked and worse raised. Bread is one of the staples of our households and no labor or care is lost that is bestowed upon its making. I would warn my readers that any sample of inferior quality will not sell at all, simply because it is home-made. In making bread for market it should be made the day before and the loaves should be made nicely brown and brought to market in a new basket with a clean, white cloth under and one over it. Ordinary farmers' flour will not make such reliable loaves as the best brands. Use the compressed yeast, which is easily managed and does not turn sour. So many different varieties can be produced, all tempting and delicious, from the favorite white bread to brown bread, corn bread, rolls and twists, with every variety of fancy bread with butter and eggs, such as muffins, buns of all varieties, currant loaves and breakfast rolls. You have simply to follow the directions laid down on the paper you receive with each package of yeast and success is sure to follow your efforts.

Minnie May desires to thank Miss Elizabeth S., of Lakeside, for a beautiful box of spring flowers received on the Queen's birthday.

MINNIE MAY.

Fashion Notes.

A fashionable critic says: "The head of a woman is the grand text of taste. The tendency of most women is to overload it with ornaments, thereby destroying its natural lines and beauties with excrescences." The old-time flowered lawns have again become stylish. A narrow fold of white crepe lisse, resting against a narrow fold or edge of white ribbon is used on the necks and sleeves of dresses. A suitable fabric for schoolgirls' dresses is a kind of firm smooth gingham. It is called Faile du Nord. These goods wear splendidly, wash and iron beautifully, and retail at 12½ cents per yard. Oh! The daintiness of spring and summer costumes! Such charming materials for their making! One were hard to suit not to find the wherewithal for a charming "set out." Then as to garnishing—the ribbons and laces, here, there and everywhere. Girls' hats are of colored straw with wide, straight brims and half-high crowns. They are trimmed often in two colors of ribbon, in loops and ends and bows and streamers. Often the back of the brim is caught up by a loop, holding it close to the crown. Dog collars and belts of jet are among the newest conceits. They may be worn with any toilette but are rather too heavy for summer wear. Gay colors prevail in the parasols of the season, but they can hardly be called elegant. Corsage bouquets are no longer fashionable; a single blossom is allowable. The matron may wear lilacs, pansies, chrysanthemums, leaving the lillies, rosebuds and daisies for the younger ladies. A serviceable gown is made of white serge with the back draperies long and bouffant, the front long, reaching to the top of the hem and slightly raised on the right side. Deep collar and cuffs of any bright colored plush may be added, but they should be so arranged as to come off easily when the dress requires laundrying. Loops of broad ribbon the same color as the plush can be worn at the side or back. Remember a bodice can easily be overtrimmed. Upholstered furniture is going out of favor for bed-rooms. Cane or willow are considered more wholesome. The most fashionable and artistic chamber set consists of a basin of Russian or Japanese lacquer, a large and small jug or picture of painted china, fanciful brush holders of glass, soap holder of glass or china, and two or three glasses in amber, opal or rose color. Sometimes the lounge is a long box mounted on six or eight castors and opening by means of a fringed lid. This box makes a good receptacle for a woman's best gowns which are best protected from wrinkles if laid in an ample place. The lounge should also have a moveable cushion. Two soft pillows should be placed at one end and two more for the back.

Recipes.

BANANA PIE.

Slice raw bananas. add sugar and a pinch of allspice, put some little bits of butter on the top and bake between two crusts.

LEMON PIE.

Grate the yellow rind off three lemons on a plate; squeeze the juice over, add three tablespoons of sugar and the yelks of three eggs; beat for twenty minutes; pour into a pie plate covered with nice light pastry, and bake in a moderate oven. When done beat the whites to a stiff froth, add three tablespoons of sugar, place on top of the pie and brown slightly in the oven. Orange pies can be made the same.

RHUBARB PIE.

Skin the stalks and cut in half-inch lengths; fill a tin or agate pie dish, put in plenty of sugar and a pinch of cinnamon; bake with an upper crust only, as the juice of the fruit renders an upper crust soggy.

GREEN CURRANT PIE.

Pick green currants, free from stalks and leaves, add sugar, and bake between crusts.

SNOWFLAKE.

Grate a large cocoanut into a large dish, and serve with cream or jelly.

FINNAN HADDIE.

Lightly scrape the outside, and lay in a dripping pan, skin side down; just cover with sweet milk, and bake in the oven until tender.

FRIED TROUT.

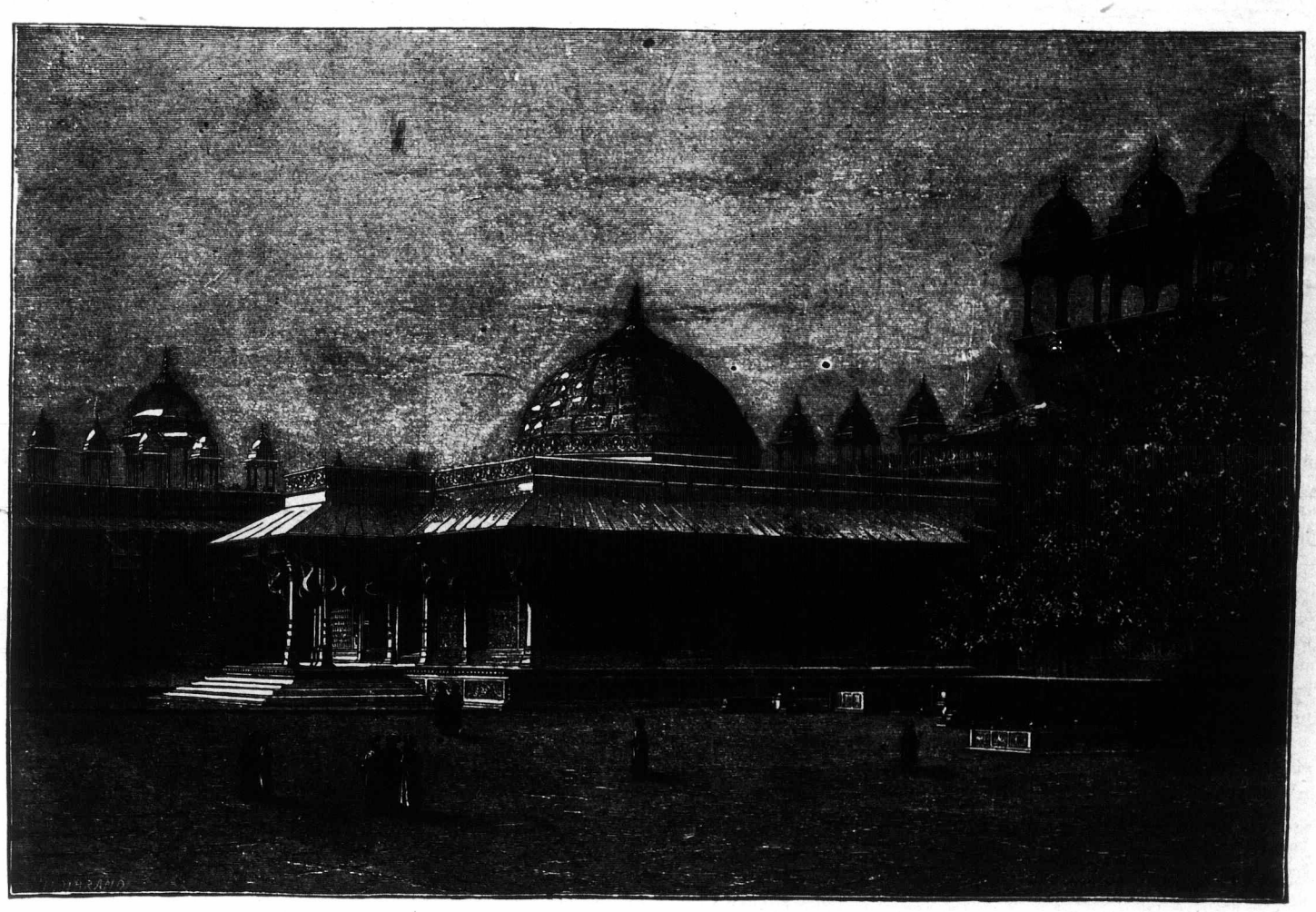
Wash and wipe, remove the entrails, dip in egg and breadcrumbs, fry a light brown in boiling lard or butter; serve with sprigs of parsley around.

BAKED FISH.

Take a salmon trout weighing three or four pounds; scale and clean it, wipe dry and place on a dripping-pan, back up; rub over with flour and bake for one hour, keeping it well basted with butter while it bakes. Fish should always be garnished. When served, there is no gravy around them, and they do not look so appetizing as when a few sprigs of parsley or cress, or even slices of lemon, are laid around them.

Mausoleum of Sheik Selim a Futlehpore Sikre.

In the sixteenth century Sheik Islam established himself in one of the caverns of the hills of Futlehpore, and he soon acquired a wide-spread celebrity from the mysterious influence which he exercised over the animals who shared his soli tude. The Emperor Akbar, on visiting him, became so impressd by his profound reasoning that he made him the most brilliant offers by way of attracting him to court, but they were refused. He therefore took up his abode near the holy man, who rapidly gained influence over him. When he died there was erected in his memory a magnificent mausoleum. It is erected on the highest part of the plateau, and is surrounded by high red walls that give it the appearance of a



MAUSOLEUM OF SHEIK SELIM A FUTLEHPORE SIKRE.

fortress. The mausoleum is entered by a peristyle supported by two columns. It is ornamented by very few mosaics, differing in this from most of the Indian monuments, but what gives it a remarkably original appearance is the fact that the walls are nothing but a curtain of marble carved in open fretwork. In the centre is the sarcophagus of the saint, which is made of mother-of-pearl and turquoise and carved with rich stuff. The trust is still in the hands of the descendants of Sharti, and the English government allows them to receive the endowment.

Lampwicks can be cleared by boiling in soapsuds

The man who has an open link at hand is prepared for a break in a chain.

The heart that beats strongest for suffering man is the heart best capable of loving God,

Shall we Read Shakespeare?

In reply to a contributor who thinks Shakespeare's works unfit to read, we have simply this to say: If you banish Shakespeare from your home, you will put aside the wisest, noblest and most instructive in literature. It is true that objectionable phrases now and then occur; but that is true of almost all of the old writers. The tone of Shakespeare's works is very high as a whole. You would hardly discard the Bible, because there are some phrases in it which you prefer to omit in reading to your young children.

In all our general reading, we have to remember that even two or three hundred years ago, people did not express themselves with that refinement of language to which we are accustomed now. Phrases which would now be considered extremely vulgar, were only "plain spoken" then, and nobody thought anything of it. Of course, every mother should oversee her children's reading; and when they come to an unpleasant suggestion, it is possible to teach them to pass it by without dwelling on it, because "people in those days didn't know any better, though most of their ideas were grand."

If you determine to exclude every book that has objectionable phrases in it, you will forbid your children to read the Bible, Shakespeare and most of the older English masters, all of the ancient classics, and a great many of the best authors of all nations. People of other countries often, at the present day, say things which we do not like but which sound entirely refined to their ears; and if we throw aside all the grand works of literature for such reasons, we certainly shall be no better off for reading what is left. The evil in this world is undeniably mixed with the good; but if our measure of gold does contain a few grains of the baser metal, we must not throw the whole away. Look to the general influence of a book or author; you can not wisely judge by a few phrases that do not meet your ideas.

Hints.

Here are some things which are worth remembering:—It is said that salt should be eaten with nuts to aid digestion. That milk which stands too long makes bitter butter. That rusty flat-irons should be rubbed over with beeswax and lard. That it rests you in sewing to change your position frequently. That a hot, strong lemonade taken taken at bed-time will break up a bad cold. That tough beef is made tender by lying a few minutes in vinegar water. That a cup of strong coffee will remove the odor of onions from the breath. That a cup of hot water drank before meals will prevent nausea and dyspepsia. That well-ventilated bedrooms will prevent morning headaches and lassitude. That one in a faint should be laid on the flat of his back; then loosen his clothes and let him alone. That consumptive night sweats may be arrested by sponging the body nightly in salt water. That a fever patient can be made cool and comfortable by frequent sponging off with soda water. That to beat eggs quickly add a pinch of salt; salt cools, and cold eggs froth rapidly. That the hair may be kept from falling out after illness by a frequent application to the scalp of sage tea. That you can take out spots from wash goods by rubbing them with the yolk of eggs before washing. That white spots upon varnished furniture will disappear if you hold a hot plate over them.

A Seed's Story.

BY J. L. N.

"Really, someone's exceedingly kind!
Such a snug little home you never could find.
How came I here? I resolved not to tell,
But as we're old friends, I might just as well."

"I've been wrapped up in paper the whole winter through,
And hidden away—without even a clue
As to what my surroundings, or what dreadful fate
Might fall to my lot at some future date."

"Just two weeks ago,—imagine my fright—
The paper was lifted and brought to the light.
Someone then made this wee home in the sand,
And here I was placed by a soft little hand."

"But oh, I'm so lonely,—now would it be wrong
If I should peep out?—I'd return before long.
The sunbeam is calling me, what shall I do?
This dress is too shabby, I must have one new."

"Emerald velvet becomes me quite well,
And who knows but perhaps I might be the belle
Among all the fair ones? At least I will try—
Now kiss me just once, dear, I'm going—Good Bye."

The Physical Care of Children.

It seems to be inevitable that children of both sexes should have their "awkward age," a time when they have physically out-grown their mental development, when they do not know how to manage their arms or hands, when their feet are dreadfully in the way, and they move about in a loose-jointed fashion which makes us fear they will come to pieces somewhere. It is at this age that a good many awkward habits are contracted, which last a lifetime. An acquaintance of mine confesses with a laugh that even now her favorite position is sitting curled up with one foot under her, and tells how many times she was caught in this awkward posture till she learned to limit her indulgence in it to the privacy of her own room. I never see a round-shouldered young girl without mentally blaming her mother for not putting her into shoulder-braces; nor one that stoops without wondering if "line upon line and precept upon precept" could not have overcome the inclination and made her stand erect. A girl gets an ungainly way of lifting her shoulders, or of standing one-sided, throwing one hip down and the other up by leaning her weight upon one leg. And if unchecked, not only will one hip be higher than the other, thus spoiling her figure, but in situations where she desires to look her very best, she will take that ungraceful position, unconsciously.

There are tricks of lifting the eyebrows, twitching the mouth, thrusting the chin or the head forward, or instead of throwing the shoulders back to straighten the body, curving the lower portion of the spine inward, thus throwing the stomach forward, which unconsciously become habits. I have heard mothers say "Oh, they'll outgrow all that," but though they sometimes do it is more frequently the case they do not.

The child with defective vision which takes the form of "cross eye" or "squint eye" is to be pitied. He will have to bear many cruel jests and jeers from his school-mates; and if he is permitted to grow up thus afflicted, must suffer the life-long consequences of his parents' neglect, and is justified, I think, in reproaching them for their negligence. Sometimes the trouble can be overcome by wearing glasses at an early age, sometimes an operation is necessary, but all means ought to be tried to remedy it; it is terrible to allow a child to grow up under such a deformity, with the added defect of impaired sight.

Near-sightedness is another trouble which though it cannot be cured by glasses, can be greatly alleviated by their proper use. A child afflicted with myopia is often blamed by his parents for his awkward, hesitating manners, what seems to be his habit of over-looking things, his inattention, and the like, when the real trouble is that he cannot see plainly; it is as if he saw everything through a mist. He cannot tell what is the trouble, since he has never had but this one faulty pair of eyes; he does not realize the difference between the world as he dimly sees it and as it appears to others; but his parents ought to study the reason of his peculiar action and provide glasses to alleviate the difficulty. Doctors tell us also that headaches are often due to imperfect vision. There may be no pain in the eyes, yet nevertheless it is found that the use of the eyes in reading or sewing brings on headache, sometimes, "a horrible sick headache." The head is not to be doctored, but glasses which correct and strengthen the vision will bring relief.

Going to the other extreme, the foundation of a lifelong trouble with the feet is often laid in childhood by wearing shoes which have been outgrown, or which are too short or too narrow, or a run-over pair which bring on weak ankles.

The economical mother hates to throw aside the shoes which are yet good, because "they hurt," and the little sufferer is promised a new pair "next week," and "next week" you know, like "to-morrow," never comes—it is "this week" when it does get here.

Those little calluses which develop into corns make their unwelcome appearance on tender toes, or an inflammation in the joint is induced which results in a painful bunion. And how hard it is to work all day on a pair of aching feet! I have my doubts whether it is possible for a person to be a consistent Christian and have corns at one and the same time. When the tortures of the Spanish Inquisition failed to shake the constancy of the old martyrs, had the firmest of them all been obliged to walk five miles in a pair of nineteenth-century shoes a size too small for him, he would have abjured his faith and sworn by the nine gods of Rome before he had traveled half his journey.

Then, as regards those unpleasant habits which are so disagreeable to others and so often practiced unthinkingly, such as cleaning the nails, picking the teeth, scratching the head, blowing the nose, eating rapidly and noisily, and the like, in presence of others—unless these are eradicated in youth, they are pretty certain to remain bad habits always. A young girl of my acquaintance, asked why she and her mates disliked a certain lady so much, replied: "Oh, it's not her homeliness nor her never looking as if she were at home in her clothes, ill-fitting as they are, half so much as *her ways*. She puts her fingers in her mouth and cleans her teeth with them, then scratches her head with the same fingers, then repeats the performance; she stands with one foot on the round of a chair and the other three feet away; and walks as if she was a day laborer going to a job of ditching. No *lady* would ever do the things she does." That suggests another thing; how much a graceful, easy walk adds to the appearance of either man or woman, and how much a pretty woman or a fine-looking man lose if they have a slouching, slovenly, hesitating or jerky gait. But dear me! how many faults I am discovering in "pure humanity!" H. A. B.

Countryman (to dentist)—The tooth next to that 'un aches too, Doc. Dentist—Yes it aches in sympathy. Countryman—Yank it out; durn sech sympathy!

Culinary Talks.

FISH.

Fish is an article of food that is not sufficiently used in this country. The hard-working peasantry of Europe value it both for its nourishing qualities and its cheapness. It should be used more among farmers as a relief from the over-use of salt pork. Because it is so little used, there are few housekeepers who know in how many ways it can be cooked so as to be palatable and nutritious. Lack of space will oblige me to give but a few of the recipes in this article. More may follow hereafter.

To begin with, before purchasing your fish, it is a good plan to decide how you intend to cook it. A large fish is best for baking, medium sized for boiling, and small ones for frying. Fish is more often fried than cooked in any other way; but unless fried properly, no dish is less to be desired. It should be cooked in a generous quantity of the fat obtained by frying thin slices of pork, and the fat should be so hot before the fish is put into it that a piece of bread dropped in will brown instantly; then keep it at that temperature until the fish is done. Too large fish must not be used, as they do not cook through readily enough, and are apt to be either half done, or burned on the outside and soaked in the centre. Wipe the fish thoroughly dry before putting it in the fat, and cover it closely for a few minutes that it may steam through. It is not necessary that it should be rolled in flour or meal, but is merely a matter of choice. I prefer not to do so, as it does not improve the flavor, and the fish is longer in cooking. When it is done, take it out on a hot platter, with as little of the grease as possible, and do not pour any of the gravy over it. A little salt should be rubbed on the inside of the fish as soon as it is cleaned, but pepper should not be added until it is ready to turn, and then in a very small quantity. Many people prefer it with no pepper at all.

For boiling fish, select one that is not too large to fit easily into your kettle. If you choose a pickerel, bear in mind that the large ones are the best for boiling, so get one as large as you can cook without crowding your kettle. Many housekeepers do not have fish kettles, so when their fish is nicely cleaned they must sew it up in a piece of white mosquito netting, and then drop it into the kettle of boiling, salted water. Put enough water in the kettle at first, so that none need be added, but, if you have neglected to do so, be sure and add boiling water, cover the kettle closely, keep the water steadily boiling, and don't uncover your kettle oftener than necessary. The juice of two lemons squeezed into the water improves the flavor for many. The time necessary for cooking depends on the size of the fish. Generally, when it is done, the fin can easily be pulled out. When done, drain it thoroughly, remove the netting, and transfer it to the platter without breaking it. Serve drawn butter or any nice sauce.

Cream sauce is easily made, and should be prepared while the fish is cooking. For a pint of sauce use a heaping tablespoonful of butter, a level tablespoonful of flour, a little salt and a quarter of a salt-spoon of pepper. Mix into a smooth paste, then add, slowly, a pint of rich, boiling milk, and let it boil hard for three minutes. It is greatly improved by adding chopped, hard-boiled eggs; and is also good if parsley is used instead of eggs. The same sauces can be

used with plain baked fish. Both baked and boiled fish should be served with cut lemons near at hand for those who cannot eat it without lemon juice.

For fish baked with dressing, care should be used that the flavoring in the sauce does not kill the flavoring in the dressing. Now, we will give a recipe for plain baked fish. Choose a large one, clean it nicely, wipe it dry, and rub salt all over, both the outside and inside. Then, with a large knife, cut through it, so it will be in round slices, an inch and a-half in thickness. Use pork fat to bake it in, but if it is a large fish it will need very little of anything. Have your dripping-pan and your oven hot before putting the fish in it. Roll the slices of fish in corn-meal or stale bread crumbs, and lay them in the pan so they will look as round as possible. Garnish it with slices of hard-boiled eggs and send it to the table as soon as prepared.

In buying codfish, it is a good plan to buy the boneless, as it saves time, patience and waste. If If you want a thick piece for boiling, take that which comes "corded up," and use as many layers of it as you need to make it the desired thickness. Tie the pieces firmly together with strong cord, which must not be removed until just before serving. Codfish should always be freshened before being cooked in any way. Some cooks freshen it by pouring warm water on it, allowing it to stand a few minutes, then draining it and repeating the process. Others soak it over night in cold water, still others soak it in milk. The very best way to prepare it is to put it in cold water after it is soaked, and let it heat very gradually. Do not let it boil at all, but keep it simmering until it is tender. Boiling codfish only seems to harden it. As soon as the fish is tender, it is ready to dress in any way you may wish to serve it. Add it to white cream sauce, and you have codfish stewed in cream. Add it to boiling milk in which you have previously stirred a little flour, a generous slice of butter, and pepper and salt to taste; serve it with crackers and you have a nice codfish soup. Use less milk and more flour and you have a nice gravy to serve with potatoes. Add slices of toasted bread to the gravy, and you have delightful toast for breakfast. But there are so many ways to prepare it that the space allowed us would not begin to hold directions for them all. Just use your ingenuity in devising different ways to prepare fish for your table, and see how satisfactory will be the results you will obtain if you only prepare it carefully.

"Mrs. Smith has lost her husband." "I know it; and, only think of it, she has put on only half-mourning." "Very true; but then, you know, Mr. Smith was a very small man."

Natural tact will do much, but it cannot supply the place of education. When a woman has learned to make a pudding, she has learned but the smallest part of her duty. She needs to know how to sit at the table and dispense a hospitality so cordial and enlivening that the pudding shall be forgotten.

It is this desire of the happiness of those whom we love, which gives to the emotion of love itself its principal delight, by affording to us constant means of gratification. He who truly wishes the happiness of any one, cannot be long without discovering some mode of contributing it. Reason itself, with all its light, is not so rapid in discoveries of this sort as simple affection.

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES:—I can assure you it gave me much pleasure to survey your picture gallery. I have only to regret that we have not a fuller display. It is encouraging to know that some of you read with so much interest Uncle Tom's letters, to the nieces and nephews of whom, though as yet personally unacquainted, he thinks a great deal.

In awarding the degrees of merit, I took into consideration the ideas, first, their originality and clearness; then writing, spelling, grammar, &c.; for mistakes in these latter have all to be corrected before we can publish the letters in the ADVOCATE. Age was also taken into consideration. If a child of ten writes a letter that would be credited to one of thirteen, it is only just and right to give that credit to the little mind; and there were some good pictures, indeed, by some very little hands.

I thank you very much for the kind invitations from some of you to come and see you in your homes. It would be a pleasure, indeed, and one which I may some day have. I shall regard it as a treat in store.

UNCLE TOM.

P. S.—I have received so many nice letters from my nephews and nieces, it is impossible for me to publish them all at once. This month I will insert a few of the best and give some of the others in the July number. Miss Isabel Trueman deserves great credit, for her's is very good. The fortunate ones will receive their prizes in a short time.—UNCLE TOM.

My Home.

A pen-sketch of the homestead!
  A poet I should be
To tell you of that dear old place
  As it appears to me.
Others may deem it homely,
  But there in youth I played;
The happiest hours of life were spent
  In the old home's tender shade.
The house—a large, plain white one,—
  Is built on a noble hill;
The vale is ornamented
  By a winding silver rill.
Now, sitting by the window,
  It's chatter sweet I hear,
And wonder if murmuring river
  Made music one-half so dear.
No dainty gravel walks are here,
  Nor flowers rare I claim;
The climbing rose clings tenderly
  To the old-fashioned window frame.
The graceful morning-glory
  There also finds a place;
The pansy and some of its modest friends
  The little garden grace.
The forests are almost all cut down,
  And verdant fields remain,
Which now the men are seeding
  To fill the barns with grain.
The drooping elm, the strong grim oak,
  The maple—Canada's pride,
The tasselled pine, the beech and ash
  Are growing side by side.
And when the sunny summer
  To autumn gladly yields,
And harvesters with scythe and rake
  Have stripped the golden fields,
I turn to the shady woodland
  And watch the varied hue
Of the foliage now dying,
  Yet gifted with beauty new.
But changing leaves brings mournful thoughts,
  And this is joyous May;
And ought that of sadness savors
  I now do fling away,
To think on the lovely sunshine
  That smiles on everything,
But keeps its tenderest glances
  For the last sweet month of spring.
The willows, their summer garb have don'd,
  Soon will the lilacs bloom,
And snowy apple blossoms
  Impart their sweet perfume.
Home, dear old home, best spot on earth,
  My joy might be complete,
Did I not miss so many smiles
  That did me here once greet.
Brother and sister, then mother,
  All have gone on their way,
And left the quiet farm-house
  For the "Land more fair than day."
And if before I follow them,
  This home and I must part,
A loving place for it I'll keep
  Deep, deep within my heart.
* * * * * * * * * * *
Did I write in prose I might better
  Describe this home of mine;
But the theme makes me sentimental,
  And my pen will write in rhyme;
So now, my dear old uncle,
  I pray, accept if you please,
These humble lines and the fondest love
  Of your affectionate niece.

—ADA ARMAND.

Pakenham, May, 1888.

DEAR UNCLE TOM,—After looking over your delightful pen-etching I feel as if it would be impossible for me to give you a pen-picture worth looking at. I have not many memories to draw upon, although bright spots of hill and dale, and rippling brook, and shady woods are all linked together when I do recall any. I think I can even now hear the sighing pines on the hill tops and the babbling brook in the valley below, and I have pleasant memories of gathering wild flowers in the woods and raspberries in the fields, and watching the birds building their nests and feeding the young birds. But I left these scenes a year ago and am living in a village now. It does not seem much like giving up farming, however, for we have a large field and an orchard of pears and apples, and a lawn with some fine old trees on it. I can still hear the sighing pines, and in stormy weather the wind fairly roars among the tree tops. We have lots of trees on the lawn, consisting of maples, locusts, butternut, walnut, silver maple, pine, chestnut, mountain ash, lilacs and shrubs. It seems like a real bit of wood land. The trees were so thick that papa had a lot cut down during the winter. It is shady and cool under the trees in summer time; it never seems too hot for a good play under their shelter even on a very warm day. A beautiful lane with a row of maples on either side leads from the road to the lawn and two large locusts stand on each side of the gate as you enter the carriage drive, which winds all around the lawn, leaving a large oval space in the middle which makes a splendid croquet ground. The house is a large brick one, with French windows opening on a wide verandah extending nearly all around the house. To the south is the flower garden and asparagus bed. I planted some wild flowers last spring and they are blooming nicely. Is it not delightful to find the first wild flowers? I think that none of the later flowers give so much pleasure as those dainty little blossoms coming as soon as the snow has left us and the first warm days of spring have returned. I have had several pleasant rambles to the woods for wild flowers this spring. Our vegetable garden is to the east of the house and south of the barn-yard on the other side of the road leading to the kitchen and barn. At the foot of the garden runs a little stream during the spring and fall months; it goes dry in the summer. It has, however, formed a channel pretentious enough to require a bridge to cross it. Just where the bridge spans the channel ascends the gentle rising on which our home is situated. The house fronts to the west and one has a view of miles of farming country on either side of the York road. From our kitchen to the north we have also an extensive view of the surrounding country. To the south our view is more shut in, but we can see our own church and the village houses, and a glimpse of the blue waters of Lake Ontario. It is only three miles away, and Port Hope, our

pretty market town, is the same. The school house is half a mile distant and it is pleasant now walking through the maple lane morning and evening; the grass is so green and fresh and the trees bursting into such beautiful buds, some of them are a lovely red. One can watch the birds flying through the branches of the trees so much better now that there is no green screen to hide them. I believe they have all come now, even the tardy oriole and cat-bird. The oriole came last week, a little earlier than usual, and, oh! he is such a delightful bird; his cheery notes are the very best oriole language I ever heard The cat-bird generally arrives about the 12th or 14th of May. He has not much to say yet, he has only once given us a hint of what he can do; he made a very clever attempt at imitating the oriole. What a lot of notes the cat-bird can sound. Isn't he a wonderful bird? He seems so friendly, and one has never any difficulty in discovering where the nest is hidden. If you approach it you pretty soon are told to "quit, quit." It's a splendid place for bird music, and if one wants to hear a bird concert in all its sweetness, just get up at break of day and you will be well repaid for doing so. The cat-bird, blue bird, song sparrow and robin, all seem to try to excel one another. It makes living in a village very pleasant when one can enjoy the beauties of nature and have the advantages of the village too. And now, farewell, Uncle Tom, I do not expect any prize for I think there are others older than I who will surely gain, but as you so kindly asked all to send you a pen-picture, and do not seem to think it a bother to be kind to us, I felt encouraged to send you mine.

HATTIE ROBINSON (aged 11).

Welcome, Ont.

DEAR UNCLE TOM.—I saw in the ADVOCATE your invitation to your young friends to send you a pen picture of their homes. In the following I will try to give you a sketch of mine. Point de Bute is a small country village situated on the ridge bordering the famous Tantramar marsh, or dyked land in Westmoreland Co. We are near the line separating New Brunswick and Nova Scotia midway between Sackville and Amherst. Most of the people are farmers, owning large tracts of marsh, many of them cutting more than a hundred tons of hay. We have a pretty little Methodist church, a public hall, school house, two stores for general merchandise, one boot and shoe factory, a tanery and harness shop. We are great temperance people, having a good Division of the Sons of Temperance, and no rumseller has dared to open a shop here for many years. Old Fort Bausejour, now Fort Cumberland, is about three miles distant. The dwelling house for the officers and the magazines are still standing. A few years ago we found a bird's nest built in the mouth of one of the old cannons. The Intercolonial railway runs near, Aulac is our station, two miles distant. Our house is brick, built by my great grandfather in the last century, the date cut in the stone over the front door being June 14th, 1799. The walls are covered with Virginia creepers and honeysuckle, and at their roots are several varieties of roses, one a pure white, the "parent stem" of which came from my grandmother's garden in Scotland, and may be a relation of those you mentioned in your old home. There is an orchard in front of the house, some of the old trees in it were planted before the house was built; one we call "grandmother's tree," set out by my great grandmother quite a hundred years ago, is still bearing. Family tradition says, the dear old grandmother carrying her first born baby in her arms, was looking for the cows when she found this apple tree, and brought it home from the woods with her and planted it. We have also many large willow trees, into whose great branches I love to climb and study my lessons. From the hill on which our house stands there is a fine view of Sackville with it its colleges and academy, and at the foot of the hill there was a beautiful pond, but the dam has partly gone out and the mill has become a ruin, from which a lovely brook runs down through the pasture land, where Brindle, Molly, Cherry and all their sisters and daughters love to drink and cool their feet on warm summer days, it then babbles on, and like Tennyson's brook, "Winds about and in and out" until it joins the Aulac river, which empties in Chignecto Bay and thence into the muddy waters of the Bay of Fundy.

ISABEL R. TRUEMAN (aged 14).

Point de Bute, Westmoreland Co., N. B.

DEAR UNCLE TOM,—Your kindly interest in the happiness and advancement of your nephews and nieces has tempted me to write the desired letter, although it was a long time before I could decide to do so, stumps and potato crops being rather poor material for description. There is nothing very romantic or enchanting about the scenery of the neighborhood; it is seldom, if ever, visited by tourists or artists, the mountain being too small and unpopular for their refined taste. Yet for all this it is a very fine section of the country. Settled seventy or eighty years ago, it lacks in appearance the roughness of the newly settled parts, and, at a comfortable distance from one of our largest cities, its chances for improvements are greater. The houses are generally large and comfortable, built chiefly of brick and stone, and I may add that this brick is obtained from the mountains which extend from our village to the city of Hamilton. Although these mountains are not noted in geography, it is not because they are not fine in themselves. They are always picturesque, especially in autumn. I wish you could see them, Uncle Tom, when their shrubbery is lined with red and gold, the high, dark pines and masses of gray rock helping to make a very fine picture quite beyond my description. There are also a few very nice falls, one of which an artist thought worthy of the room it occupies on canvas. It falls over a steep rock into a small, winding stream; behind it are the peaks of the same mountains. There are a few quiet, pleasant and interesting places in the neighborhood which I enjoy visiting. One a small cemetery, which belongs to the first family which came into the neighborhood and who own it still. It is surrounded by a stone wall and near it is a grove of trees. It is now pretty well filled up. Near my home are some very high hills, from which you can see the surrounding country for quite a distance. The green and brown fields, the orchards, the farm houses, and the high, dark pines in the background look very interesting indeed. On the same hill stands a quaint, gray church, strictly modern, yet with a certain indescribable ancient appearance about it. Over the way is the district school, the grounds of which are considered the finest in the county, although the building itself has a rickety appearance, quite customary in our country schools. Unfortunately, there are no bodies of water of importance in the place, creeks being poor substitutes for rivers, and the croak of the frog in the small pond for the roar of the ocean. The woods consist chiefly of pine, but are being pretty well cleared out. We occasionally enjoy a stroll through them, especially when the flowers are blooming and the moss and ferns are fresh. It seems almost supernatural, when in the dense part of these woods with nothing but the beautiful sky, the murmur of the brook and the rustle of the pines; when we can take in all this loveliness, we can only stand, awed, and wonder. I have almost forgotten to tell you where the p'ace I am describing is situated. It is about ten miles from the city of Hamilton. It is glorious to view the city from the top of the mountains, especially in summer when the waves of the bay and lake are sparkling in the sunshine, and the city itself looks picturesque. Dundas, the "Valley City," is five miles away. It is a very nice little town with the mountains on the one side and the level country on the other sides. I have already taken up quite a lot of your time, Uncle Tom; there are many places of interest which I would like to tell you about and which are very nice to look at, and always help to make up the desirable whole, but which would appear very insignificant and unlively when described on paper. Yours sincerely,

RACHEL H. HARRIS (14 years).

Ancaster, P. O., Ont.

DEAR UNCLE TOM,—I saw your letter in last month's FARMER'S ADVOCATE and I thought I should like to give you a picture of our home in the North-west. We live twenty miles from Calgary on the Bow River. Our house is built like a Swiss cottage, on some rising ground, a little way back from the Bow River. On the right there is a small wood which slopes down to the river. In it grows fir and cotton-wood trees, &c., and also all sorts of wild fruits in the summertime. On the left the valley goes back a long way, with what looks to me like a large ring of green hills all around. On the top of them the prairie is dotted about with settlers' houses. On a clear morning, as we go to school, we see the beautiful white Rocky Mountains looking almost close to us, and when the sun is shining on them they look nicer than anything I ever saw in England. They are really about seventy miles off. We came out to Canada last summer and like it very much indeed, especially now the winter is over. In the river near us there are several small islands, on which grow trees and shrubs. When I go for a walk around the cut bank and look down at them lying in the middle of the blue water they look beautiful, and if you saw them I know you would say so too. I cannot think of anything more to tell you about our neighborhood, so will close my letter.

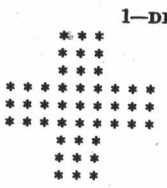
FLORENCE BANISTER (12 years).

Dunbow P. O., Calgary, N. W. T.

"Riches take unto themselves wings and fly away," said the teacher; "what kind of riches is meant?" And the smart bad boy at the foot of the class said he "reckoned they must be ostriches."

Puzzles.

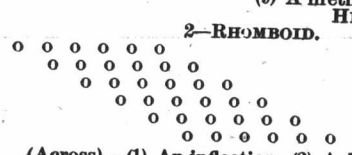
1—DIAGRAM.—CROSS.



(1) Timid.
(2) Mournful.
(3) An insect.
(4) Ungrateful.
(5) Longing for.
(6) Passably.
(7) A title.
(8) Agent's name.
(9) A lifetime.

HENRY REEVE.

2—RHOMBOID.



(Across).—(1) An inflection. (2) A desert. (3) Pairing. (4) A wish. (5) To run away. (6) Freshest.
(Down).—(1) In dame. (2) A verb. (3) A Dutch measure. (4) A fish. (5) Matched. (6) Past tense of to get up. (7) Aromatic plant. (8) Increased. (9) Before. (10) Two consonants. (11) In date.

AMOS HOWKINS.

3—HIDDEN INSECTS.

1. How nicely you have painted that cow's horn, Etta.
2. You must be eager to learn, if you want to get a prize at school.
3. I was preparing to go out to-day, but it began to rain, so I was prevented.
4. Dan tried to get a crow's egg, but the crow pecked him badly. BEATRICE M. MATHIAS.

4—DROP VOWEL.

Wh-t -s p-st -s p-st f-r-v-r,
L-t -ll fr-tt-ng b- r-s-gn-d;
-t w-ll n-v-r h-lp th- m-tt-r,
D- y- - r b-st -nd n-v-r m-nd.

ARTHUR S. REEVE.

5—NUMERICAL ENIGMA.

My whole is a true saying. My 24, 3, 16, 25, 21, 13, means in a rough manner; my 7, 14, 22, 6, 26, 27, is a viscid fluid; my 1, 2, 9, 15, 25, means three-fold; my 19, 5, 17, 18, is a jot; my 23, 28, 4, 11, is essence; my 10, 20, 29, 12, overlaid with gold.

6—DECAPITATION.

If "to erase" you should behead,
"To curl" you then would have instead;
Behead again and you will find
"A plant" would soon come to your mind;
Once more behead, though not a snail.
I am "a monkey" without a tail.

FAIR BROTHER.

7—ILLUSTRATED REBUS.

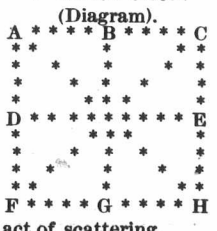
8—PROBLEM.

I wish to plant nine evergreen trees in such a manner that there will be ten rows, with three trees in each row. How may I do it?

FAIR BROTHER.

9—UNION JACK.

(Diagram).



A to C—The act of scattering.
D to E—A false position.
F to H—To render inevitable.
A to F—A speech made in public.
B to G—Formality.
C to H—To make national.
A to H—To prove beyond a doubt.
C to F—An advocate for the doctrine of philosophical necessity. FAIR BROTHER.

10—CHARADE.

A schoolboy, bad,
Got awful mad
At his sister, in a squabble;
It made her sad,
To think she had
Got her brother TOTAL trouble.

And I might add,
That for this lad,
There was a grand surprise FIRST store;
His father had
A hickory gad,
With which this bad boy LAST "explore."

FAIR BROTHER.

Answers to May Puzzles.

1.— Stone walls do not a prison make,
Nor iron bars a cage;
Minds innocent and quiet take
That for a heritage,
If I have freedom in my love,
And in my soul am free,
Angels alone, that soar above,
Enjoy such liberty.

2.— The living things of earth and sea,
Proud man their master call
Then, should not man, their master, be
A tender friend to all?

3.—Censure is the tax a man pays to the public for being eminent.

4.

TROUT
ROUT
OUT
SHOUT
HEAT
OAR
STRUT
TOOT
ROB
SCOUT
CURT
ORE
SNOUT
NEAT
OAT
UT
T

5.—Pearl, agate, opal, ruby.

6.

S S
AA AA
CF TT
RE IE
IG RL
FU IL
IA ZI
CR E TE
E D E

7.

SOB
BARED
SATINET
ORIFICE
BENISON
DECOY
TEN

8.—Some-thing.
9.—Ann-ounce—announce.
10.—Herein, he-ere,-rein,-in,-here,-her.
11.— Once more the fields are clad in green,
The skies are blue and fair,
And violets sweet their fragrance waft
Throughout the balmy air.

12.— Friendly words are often spoken
When the feelings are unkind,
Take them for their real value,
Pass them by and never mind.

13.—Tare, pea, rye, corn, oat.

14.—I want to tell you about my *three sisters*, who live at *home*. They like *pleasant society*, and they have *plenty* of it, too. *Victoria*, she's the eldest, has a *nice* new *cashmere* dress, a *silver* watch, and *gold* chain with a *red cross* attached to it. A young *man* comes to see her sometimes; he calls her his *pearl*, and gives her *candy*; I took a *Pekin* the parlor one day and saw him; he has a *big*, *broad* nose, a *false* moustache, and parts his *hair* in the middle. I like *Hope* best; she gave me an *orange* for being *spry* when I done her *trading* for her; she put *milk* and *sugar* in my tea, too; she's *cook* in our *family*, you know. Mother says its her *fortune*. Then there's *Isabel*; she uses *flattery* when her *bald*-headed, *crooked* old stick of a *French* beau comes to see her. My *eye!* I must make *haste*: I'm going off on a *lark* to-night, so *farewell* for the present.

Names of those who have Sent Correct Answers to April Puzzles.

A. T. Reeve, Libbie Hindley, S. Kate Banting, Ernest Ramsay, Emma Dunnee, Cecelia Fairbrother, A. Russell Boss, Carrie Sheeres, Douglas Japp, Amos Howkins, Hattie Robinson, Samuel Albright, Mary Morrison, Helen Connell, Edward Woods, Mary R. Ludden, E. Eulalia, W. B. Anderson, Henry Reeve, Thos. G. Moore, Ethel Harper, Earnest Pope, John C. Elliott, Minnie Moore, A. G. Munro.

A clergyman was recently annoyed by people talking and giggling. He paused, looking at the disturbers, and said, "I am always afraid to expose those who misbehave, for this reason. Some years since, as I was preaching, a young man who sat before me was constantly laughing, talking, and making uncouth grimaces. I paused and administered a severe rebuke. After the close of the service a gentleman said to me, 'Sir, you have made a great mistake. That young man whom you have reproved is an idiot.' Since then I have always been afraid to reprove those who misbehave themselves in church, lest I should repeat the mistake, and prove another idiot." During the rest of the services at least, there was good order.

Notices.

THE TORONTO INDUSTRIAL EXHIBITION. The prize lists for the next Industrial Fair to be held at Toronto from the 10th to the 22nd of September, have been issued, and any of our readers who desire copies can procure the same by dropping a post card to Mr. Hill, the Secretary at Toronto. The book is very handsomely gotten up, and is appropriately illustrated.

SUMMER TOURS.—Round-trip excursion tickets at low rates are now on sale via the Burlington Route, C., B. & Q. R. R, from Chicago, Peoria and St. Louis to Denver, Colorado Springs, Pueblo, Salt Lake City, Ogden, St. Paul, Minneapolis, and resorts West and North-west. The "Burlington" is the only line running sleeping cars from Chicago to Denver without change. It is the only line by which you can go from Chicago to Denver and be but one night on the road. It is the picturesque line to St. Paul and Minneapolis. It runs daily "fast trains" to Kansas City, St. Joseph, Atchison, Council Bluffs, Omaha, Lincoln, Cheyenne and Denver. Fine Government Lands are located on its new lines in Nebraska. It is the best line by which to reach all principal land points in the West and Northwest. Tickets via the Burlington Route can be obtained of coupon ticket agents of connecting lines. Send in postage to Paul Morton, Gen'l Pass. and Ticket Agent C., B. & Q. R. R., Chicago, Ill, four cents for a copy of the Burlington Route Guide, or six cents for an illustrated book about Colorado and the Garden of the Gods, advt. 270-b

STOCK NOTES.

Nine hundred and twenty pure-bred Clydesdale stallions exported form Scotland in 1887.

Mr. N. T. Parker, of Simcoe, Ont., held a public sale of Clydesdale horses at Lincoln, Neb., Col. F. M. Woods, the auctioneer, sold nine stallions at an average of $1,050, and three mares at an average of $557. The highest price paid for stallions was $1,470, and for mares, $715.

Mr. Joseph Ward, Marsh Hill, Ont., has sold within six months nearly 100 pure-bred Cotswolds, at prices ranging from $10 to $30. During the same time he sold between twenty and thirty pure Shorthorns. He intends to import Cotswolds and Shropshires this summer, and has already sailed for England.

Messrs. John Miller & Sons, Brougham, Ont., report their sales for the past season very satisfactory. They have recently disposed of a large number of Shorthorn bulls and Clydesdale horses. The majority of those sold have gone to the U. S., though a number of good ones remain in Ontario. Mr. Miller expects a very strong demand for Shropshire sheep within the next few months. He intends to import this season, and will visit England and Scotland personally.

That veteran breeder, H. H. Spencer, of Brooklin, Ont., has had very good success with his Shropshire sheep this season. Eighteen of his ewes produced thirty lambs, all of which are alive and are an exceptionally good, even lot, they are large and in very thrifty condition. His Shorthorns, all descended from that noted cow, Mr. John Miller's imported Isabella, are a good lot. The Clydesdales and Berkshires at this farm are doing well. His sales for the past season have been all that could be desired.

Mr. J. E. Smith, of Beresford Stock Farm, Man., recently bought in Ontario six pure-bred Clydesdale mares, and twenty-two high grade mares, also the pure Clydesdale stallion "Royal Charlie." Among the mares were two fillies imported by Mr. Wm. Rennie, of Toronto; Roscilnd, imported by Mr. Alex. Russell, Unionville, Ont.; Maggie, of Richmond Hill, one of Ontario's prize winners, bred by J. & W. Russell, Richmond Hill, Ont., and Juliet, another prize winner, bred by J. & W. B. Watt, Salem, Ont.

On May 1st, Messrs. V. E & H. H. Fuller, of Hamilton, sold thirty of their famous Jerseys by auction at Oakland. If these gentlemen conduct their annual sales as they did this one, we would recommend all who want Jerseys to attend in future. The arrangements and management were faultless and very honorably conducted throughout. The thirty purebreds aggregated $5,970; making the average price $199. The choicest animal offered was Canada's John Bull 5th, by Canada's John Bull 8,388—out of Mariamie Pogis—a daughter of Mary Anne of St. Lambert. The competition for this bull was keen from the outset, the bidders included three well-known American breeders, and Mr. Rolph, of Markham, starting off at $500, the rivalry ended in making Mr Rolph the owner at $1,210. The next highest animal was $440, an inbred Stoke Pogis, yearling, Columbine's John Bull. There were several fine young cows in calf which sold within the easy reach of farmers, even in humble circumstances.