

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from:/
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

Wrinkled pages may film slightly out of focus.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12X	16X	20X	24X	28X	32X



The Field.

Ridging Clayey Soils.

EVERY practical farmer is aware that when clay soils are ploughed while wet, they become compact and valueless for a number of years. This must be true in degree at every stage of humidity from moist to wet. Clay, as is proved by the manipulations of the potter, brick-maker, etc., is susceptible of being condensed into a much less bulk, even by moderate degrees of pressure. And when so condensed, many of its functions are destroyed. Clay, when in proper tilth, such as may be attained by the methods we shall indicate, has the curious property of receiving and retaining all organic proximates in solution, and will yield them up to water as a solvent where growing roots are present. After compression, however, this property of clay is materially diminished; yet it may be found in degree in baked clay, and in a less degree in clay not baked.

Clay soils, for the reason given above, retain manures, and not because they are impervious to filtration, for if the latter were true, they would be barren as well as impervious. It is well known that a clay soil, when once in heart and in good tilth, will continue to give large crops for a much greater length of time than a sandy loam. The experiments of Mr. Mechi and others in England, who have underdrained and subsoiled clay land, clearly establish this fact.

Admitting, then, the properties of clay before claimed, it is necessary to alter its unctuous condition, rendering it less adhesive and more missible; all of which may be done by purely mechanical means. This is generally performed in late summer by ridging and back furrowing, so as to leave the figure of the surface of the field like a succession of capitals AAVV along side of each other. In case the field has been surface-manured before this ploughing, then the manure will occupy a space like a small capital A in the centre of each large one, and all results consequent upon its fermentation will be absorbed and held by the clay. Then run a small one-horse subsoil lifter in the bottom of each V, and so leave it for winter. The fermentation of the manure, and the frequent freezings and thawings of the clay ridges (or letters A) will render them less plastic by spring, when the ridges A may be split by a two-way plough, throwing them into the V's on

either side. A light surface cross-ploughing in spring perfects the tilth, and will render a clay soil thus treated much more kindly in texture than any other treatment. Theeration of soils, clayey in texture, cannot be too highly recommended, for their great after-value, as compared with sandy soils, fully warrants the necessary expenditure. When clay soils are underdrained before the surface treatment we have recommended, they will maintain their free condition, while the continued decay of the root crops raised upon them will alter their colour, and, rendering them every year capable of receiving more heat, free them from surface baking or cracking, and render them more economically workable.—*Professor James J. Mapes.*

Sixty Acres of Cucumbers.

THE *Prairie Farmer* gives an account of a sixty-acre cucumber plantation belonging to Mr. L. H. Butler, who is extensively engaged in the manufacture of pickles.

The soil is part of it sandy and light, the rest is the common black prairie loam, in both of which the cucumbers grow well. The sandy land was warmer and earlier, and in a wet season suffered less, than the prairie soil, which, however, had the advantage in the past dry season, as it was less susceptible to drouth.

A few acres were planted about the fifth of May for the purpose of raising early cucumbers for the Chicago market, and for seed; but the main crop was not planted until about the tenth of June. The ground was prepared by ploughing it immediately before planting to the depth of ten inches, and upon this, without harrowing or rolling, the seed was planted in hills four feet apart in the row, and the rows six feet apart. Four or five plants are left in each hill.

One acre of this piece yielded 165 bushels, but this year the average of the whole sixty acres was only 57 bushels per acre. A good crop is 125 bushels per acre, but the severe drouth this summer greatly lessened the yield. A good picker will pick ten bushels in a day, and the picking season usually lasts four or five weeks. After the cucumbers were picked, they were assorted and packed in salt at the rate of half a bushel of salt to the 40 gallon cask, and in due time pickled in vinegar and put up for market. Mr. Butler was offered \$16 per barrel for his cucumbers in the salt, which offer he declined.

We give these statements from the *Prairie Farmer*, for the purpose of showing that energy and skill expended in the production of even cucumbers meet their appropriate reward. Sixty acres, at the small yield of only 57 bushels per acre, give a crop of 3,420 bushels. If by \$16 per barrel it is intended to say \$16 for 10 gallons, or for every five bushels, then the crop is worth \$10,944, or a little more than \$182 per acre. From this must of course be deducted the

cost of production. Mr. Butler estimates that his pickles cost him 23 cents per bushel when delivered in Chicago; for convenience we will say 25 cents; this at the yield this year will be \$14 25 per acre, so that his profits are at the rate of \$167 per acre. If, however, the usual yield be 125 bushels per acre, then at the same rates the profits must be over \$350 per acre.

How long shall we continue to raise wheat, oats, and barley, at an average yield of ten, twelve, or fifteen dollars, per acre, when we can reap \$150 per acre from cucumbers?

A Chapter on the Canada Thistle.

To the Editor of THE CANADA FARMER:

SIR,—A correspondent of the *Country Gentleman*, vol. xxiv., page 80, has given the best and only feasible method, for farmers, of destroying the Canada thistle, (*Cirsium arvense*.) (By the way, what an unmeaning and senseless cognomen this Canada thistle is. It might be more appropriately termed the Confederate thistle. Acting, as it usually does, in confederation, and being not unlike the "Confederate States of America," tenacious of life, this term would not be utterly inapplicable.) He says: "Let your thistles grow as long as you can, and not have the seed mature enough to grow. Then mow them close to the ground. The next year they will be few and weak, and a second cutting will finish them. I do not think that a 'patch' of Canada thistles was ever subdued by ploughing or hoeing. I have tried both methods thoroughly several times, but always failed. Fields in which the Canada thistle has become troublesome, should be stocked down and mowed, and they will soon disappear."

In passing through the country, almost anywhere, no one can fail to observe the almost universal dissemination of the Canada thistle. It is impossible to estimate the influence wielded by this weed. Its injury to the cultivated cereals and crops of Canada is obvious, and need not be dwelt upon here. Its traces can be seen almost everywhere. And yet it cannot be doubted it has, in common with other weeds, a mission to perform—an honourable one, in my opinion, seeing that it is always a friend of poor farming and careless farmers. I will always succumb before a thorough system of management. It is never common to a proper rotation of crops, with good cultivation. In fact, it is an incentive to more careful culture; extra attention being given to the rotation of crops, more care to the selection and quality of the seed, and to a superior system of management throughout. The premises of a good farmer, one who is alive to every improvement of his profession, are comparatively free from this pest. We say comparatively, for it is well known it would be useless to attempt to keep them entirely so, with the adjoining land of his neighbour well stocked with the same weed. The only effectual remedy for this would be

a "Thistle Bill" like that noticed on page 89 of your paper. It must be admitted, I think, that such a Bill ought to be in force in Canada. It will be, before long, doubtless; and the sooner it is, the better for all parties concerned. It is, therefore, to be hoped that something will be done in this direction during the next session of Parliament.

On the other hand, the premises of the man who gives no attention to the arts and practices which go to make up the management of the successful cultivator, are an index of the system carried on there. Let us enter the precincts of this farm, and see for ourselves. Here is a field that seems to have been seeded to some variety of grain, a nearer inspection reveals it to be oats, half buried in thistles, and other weeds which overshadow it. Their luxuriance gives proof that some of the elements of vegetable growth still exist in the soil, although we happen to know this field has been cropped for years, without any intermittent period of rest, by being stocked to grass for meadow or pasturage. Perhaps this land may have been manured previous to the sowing of grain—yes, here is a portion of half-rotten straw, indications showing that it may have seen the farm-yard at no distant date. This may account for a part of the weeds, and their luxuriance. The soil seems to be fast "getting light, and is running to stones."

However, here is a hoed crop, which may show evidences of better cultivation. It is potatoes; they, too, are smothered with weeds, thistles, of course, predominating. There are evidences of their having been hoed, but the thistles have grown thicker than ever. No, my friend—proprietor of the potatoes—you need not expect the thistles are to be exterminated in this manner so easily. I know a thing or two, and one is that this is not a practicable mode of doing it; this field should be "stocked down and mowed, and they will soon disappear." Do you imagine you will get a crop here? If you do, it will be a small one. What with the thistles, and the efforts to get them out, there will be very little life left in the potatoes. You will find it so, at the digging time, or at any rate, you will find very little of that life-sustaining principle, sometimes termed the "crutch of life."

There is the field which the proprietor says is his pasture. We believe it to be a piece of land that, in the spring, finding himself in an unusual hurry, by reason of not having any fall-ploughing done, the wetness of the season, &c., he concluded to let lie idle, until he could find an opportunity to resume its cultivation. He has probably heard land is benefited by being allowed a period of rest. Its surface bears witness of repeated scratchings, commonly termed "ploughing," and is well wooded with a dense growth of what the proprietor styles the "cursed thistles." If the scythe was put, and kept in during the season, it would soon rid the land of the crop, both root and branch, but, allowed to ripen, it will seed his neighbour's farm as well as his own. I could go on *ad infinitum*, citing such examples as this, but enough. It is easy to see that such a state of things is doing an immense amount of damage to the country, and will always exist until we get some such "Thistle Bill" as heretofore mentioned put in force.

I will close by again remarking, that thistles, in common with other weeds, are foreign to all good systems of farm management, and to the premises of the farmer who is alive to everything pertaining to his profession, and are easily exterminated by the arts and practices which go to make up the best systems of agriculture. J. F. C.

L'Original, Oct., 1864.

How to Introduce Flax Culture into New Localities.

To the Editor of THE CANADA FARMER.

Sir, At this season of the year, the weather and the crops are not topics of such general interest as they were a few weeks ago, your weather and crop correspondents will, therefore, have to supply matter more suited to the intellectual wants of the community. So, according to promise, I will endeavour to open a discussion of the question, how can the culture of flax be best introduced into localities in which nothing of the kind at present exists? Notwithstanding that the present is a most opportune moment for the introduction and extension of flax culture in Canada, the most ordinary observer cannot fail to see that there are many difficulties to be grappled with, before it can be extensively introduced into localities such as I have mentioned.

In the first place, farmers will scarcely engage to any extent in its culture, without the prospect of a

convenient and remunerative market for the crop. And in the next place, in a country like Canada, where there are so many opportunities for the profitable investment of capital, capitalists would scarcely think of erecting machinery for its manufacture, without first having a fair prospect of being able to obtain, at reasonable rates, a supply of flax sufficient so to employ such machinery as would render them a fair return for their investment.

It is thus obvious, that to introduce its culture extensively, either the farmers in a certain locality must mutually resolve to grow flax in such quantities as would induce parties possessed of the necessary capital, to engage in the erection of machinery for its manufacture, or capital must first be expended by the manufacturer, and a market created, to induce the farmers to engage in its culture. As a first step towards this most desirable object, the latter presents the most feasible aspect, for the reason that it may be carried out by an individual, whereas the former would require the mutual and combined effort of a large number, and is consequently less likely to be carried into effect. In regard to the latter, there are many difficulties to be overcome. I believe the way in which the Messrs. Perine and others have established this important branch of business, in localities in which it is now carried on, has been (previous to commencing the erection of machinery,) to distribute seed among the farmers, to use their influence with them, so as to induce them to engage in its culture, and to guarantee them a market for the crop. And this, it seems to me, is the only way in which success is at all certain, but it evidently requires not only a large cash capital, but to have any prospect of success it can only be undertaken by parties who have had some experience in the matter, and in this lies the principal difficulty.

There are, no doubt, numbers of men in the country who are well qualified in every respect to carry on such an undertaking, but comparatively few of them are possessed of the necessary capital; and there are also men possessed of capital, but who (while the present demand for money on safe investments continue,) have no desire to engage in a business in which there are so many difficulties to be overcome.

Now, could not our legislature set apart a sum of money to be loaned (at a low rate of interest, say 3 per cent. per annum for 5 to 10 years,) to parties who might undertake to erect machinery of a certain specified description, for the manufacture of flax, and who might be in possession of a sufficient water privilege, or other facilities for the establishing of such machinery, such loan to be made a first claim on the property, and to be repaid by annual instalments or otherwise?

Something of this kind would enable many parties to engage in this business, who are unable from the want of means to do so; but who, with a limited amount of assistance might materially benefit the community, as well as improve their own circumstances. I am not at all wedded to this plan, but would like to see any scheme brought forward that would tend to advance the desired object, and I feel confident that if some of your more talented correspondents would put their shoulder to the wheel, and get the matter brought fairly before the public, and especially to bring it under the notice of the present Parliamentary Committee on the advancement of agriculture, that some scheme might be adopted that would tend greatly to extend flax culture in Canada. A CANADIAN FARMER.

Derby, Co. Grey, Nov. 5, 1864.

Arboriculture.

To the Editor of THE CANADA FARMER:

Sir,—The preservation of the forests," said the speaker who explained the reasons for a forest code in the Chamber of Deputies, "is one of the first interests of society, and consequently one of the first duties of government. Agriculture, architecture, and almost every industrial pursuit seek there the aliment and resources which nothing else can replace. Their existence, even, is an inappreciable benefit to the countries which possess them, in protecting and feeding the springs and rivers; in sustaining and strengthening the soil of the mountains; and in exercising a happy and salutary influence on the atmosphere."

These powerful interests which call for the solicitude of the Legislatures of European countries, require from our own some law to protect the forests against abuses having their origin in disorder and speculation. It may therefore become necessary to

give to the administration of the forests, as well as to the administration of the lands, a new organization.

Hitherto all swamp and rocky tracts have been granted, indiscriminately with the best agricultural lands, in free and common socage. But it is for the interest of the State, and consequently of the public, that they remain in the Crown, as part of the public domain, and that their use be subject to the provisions of a forest law, under which also those who possess natural forests or plantations would have all the rights of proprietorship, subject to certain restrictions.

As our natural forests are fast disappearing, their renewal is a matter of private interest, as well as of public importance. The formation of plantations on lands suitable to the different varieties of timber must soon become a special duty to landed proprietors, and even to the small farmer. Lands now considered worthless would, in a few years, become most valuable. Some may be found suitable for the oak, others for the elm, ash or maple, while varieties of the pine will find a habitat on the poorest sands. Our rocks, swamps, and sands will thus be made productive again, and will furnish wood for fuel, for shipbuilding, for architectural purposes, and the various requirements of commerce.

The white pine, although so valuable, is considered inferior to some of our other varieties, and to the pine timber of the North of Europe. But the quality of timber of every kind depends very much upon the age of the tree and the soil on which it grows; the timber grown in river valleys near the sea, and still more, that grown in the mountains above tide water being inferior to that from the hills in the interior.

Many species of American trees are now cultivated in Europe, and many European varieties might be profitably introduced here. The European larch would thrive well in Canada, and would be extremely useful as well as ornamental. In suitable situations the timber arrives at perfection in forty years, or in about half the time required by the Scotch pine, and it is found to grow best in poor sandy and rocky soils where scarcely anything else will survive. The wood is capable of receiving a degree of polish superior to that of the finest mahogany. The log cottages constructed of its squared trunks in Switzerland last for centuries; and for vine props, it is found the most durable of all kinds of wood. Venice turpentine is one of its products. Its fine grain, as well as its durability, have long recommended it to painters for their palettes, and for painting panels; and Evelyn remarks that several of the paintings of Raphael are on larch wood. A. KIRKWOOD.

Markham Ploughing Match.

To the Editor of THE CANADA FARMER:

Sir,—I send you an account of a ploughing match that came off on Wednesday, the 2nd of November, on the farm of Mr. John Welsh, 2nd Con., Markham. At first it was intended to be confined to ploughmen residing between Lots 5 and 25, in the 2nd and 3rd Concessions, but our worthy representative, Amos Wright, Esq., having very liberally made a present of one of Wilson's Improved Fanning Mills, value \$30, and the friends in the neighbourhood responding cheerfully to the call made upon them for contributions, \$56 were raised, and the ploughing thrown open to all who had never taken a prize at any previous match. The day was beautiful for the occasion, causing a large number of spectators to be on the ground to witness the match, which was, on the whole, a very successful one. The competition in the first class was very close and keen, especially between the three first-prize men, Campbell, McKinnon and Coxworth. Some of the unsuccessful competitors ploughed well, held as true and even as the winners, but their ploughs not being so good, they failed, through that cause, to take a prize. One very interesting feature in the match was a prize (a handsome whip) presented by W. H. Myers, Richmond Hill, for the best dressed team in any class, which was carried off by Wm. Armstrong, Scarborough. The following gentlemen kindly acted for us as judges, (and all being first-class ploughmen, their decision gave general satisfaction).—Messrs. Wm. Rennie, Wm. Hood, and Dugald McLean for the first class, iron ploughs; 2nd class, wooden ploughs, Messrs. John Welsh, J. L. Patterson, and J. Robinson; and for the boys' class, patent ploughs, Messrs. Simpson, Rennie, G. Morgan, and Andrew Hood. The plough-

ing altogether was excellent, and the management of all the proceedings by the committee left nothing to be desired. At the close of the ploughing, which was at the rate of one acre in 11 hours, the following prizes were awarded by the judges, and paid by the secretary on the ground.

1st CLASS, IRON PLOUGHS.—1st prize, Fanning Mill Alex. Campbell; 2nd do., \$8, Hugh McKinnon; 3rd do., \$6, Wm. Coxworth; 4th do., \$4, Wm. Forbes.

2ND DO., WOOD PLOUGHS.—1st prize, \$8, Watson Leek; 2nd do., \$5, Reuben Phillips; 3rd do., \$4, Geo. Clark; 4th do., \$2, Jos. ah W.

3RD DO. PATENT PLOUGHS.—1st prize, \$6, Wm. Armstrong; 2nd do., \$4, John Clark; 3rd do., \$3, Alex. Brown; 4th do., \$2, Wm. Dolby; 5th do., \$1, J. Galloway; 6th do., \$1, Wm. Cox; 7th do., \$1, Thos. Johnston.

I take this opportunity, on behalf of the committee, of sincerely thanking Mr. Wright for his kind and liberal present. After the distribution of the prizes, all went home more than satisfied with the day's proceedings.

NATHANIEL KIRBY, Sec. and Treas.

A Farm in Hungerford.

On my return home, I took the new road from Madoc to Downing's Rapids, and from thence through the north-western portion of the Township of Hungerford. This section of the country has been settled for some twenty years, and is one of the finest portions of the County of Hastings. The farms, generally, are in a high state of cultivation, and the buildings are of the better class, and everything about the farms betoken care, thrift and industry. To show what cultivation will do, and that the success of a farmer does not depend upon "luck," I will take the farm of Mr. John Graham, lot 3rd, in the 11th concession of Hungerford, where I remained over a few hours, and was entertained with true Irish hospitality. Mr. Graham has 300 acres of land, which twenty years ago was a wilderness. It is rolling land and the soil is chiefly clay, with a mixture of clay loam, portions of the farm being stony. The flats, of which there are several, and which, a few years ago, to use the very expressive words of Mr. Graham, were "pigs' paint shops," have been reclaimed by an extensive system of ditching, and are now the most productive portions of the farm. Tons and tons of stone have been removed from the field, and made to do service for ditching and fencing. Mr. Graham, within the last few years, believing it to be cheaper to raise good stock than poor stock, purchased the fine Durham hull formerly owned by Mr. Woods, of Thurlow, and has now some as fine stock as you will see in the county. He has eight or ten spring calves in excellent condition, which, with his yearlings, would compare well with any shown at the Provincial Exhibition last year. Mr. Graham is largely in the dairy business, and with a view to make his cattle comfortable in the winter, and to make it convenient to milk and take care of them, he has built a stone stable 71x31 feet, with two rows of stalls, and accommodation for 36 head of cattle, besides room for calves. In the centre is a passage way, which leads to a large stone cellar, 30x31 feet, and 7 feet high, where the roots are stored, and from whence they can be wheeled in a barrow to the passage way and emptied on either side into the stalls. Above this stable and cellar is the barn, 101x31 feet, where, on the north, the floor is level with the ground. Here are trap-doors, where the roots, after being carted in, can be dumped into the cellar. All the arrangements about the premises, have been made with a view to the convenience of the farmer and the comfort of his stock.

Mr. Graham has a fine stone residence, his barns and sheds are of the most substantial class, and he may well take pride in having, in his latter years, surrounded himself with so many comforts and luxuries, the fruits of his honest toil.—*Belleveille Intelligencer.*

Sowing Grasses without a Corn Crop.

The following letter on this subject has appeared in *The Times*:—

Sir.—The number of letters I have received making inquiries respecting the mode and utility of sowing grass-seeds without a corn crop—to which allusion was made in my communication to you upon "The harvest and the crops"—is my apology for soliciting your columns as the medium for briefly answering one and all of them.

"The preparation for and mode of sowing do not widely differ from those usually observed in sowing grasses with a crop. Ploughing five inches deep so soon as the land is cleared of the root crop, frequent harrowings to secure a fine surface tilth before sow-

ing, and a light harrowing after, and the soil left firm and compact by a heavy rolling, constitute the chief operations for this mode of grass culture. In addition to the varieties and quantities of clovers and grasses usually sown with a crop, 2lbs. of rape-seed per acre is allowed for the two-fold purpose of protecting the young clovers, and affording valuable fattening food for sheep. Grasses thus sown are ready in ordinary seasons for pasturing stock in the last week of June, and up till the end of October usually fatten from eight to twelve sheep per acre. The value thus obtained from such pastures the first season far exceeds, even with moderate prices for stock, that which a full average crop of oats yields. Nor are the advantages of the system under consideration only limited to the first season, for the grasses being strong and vigorous in a firmly compressed soil are not easily injured by drouths and frosts, the effects of which the roots and rootlets of cereal crops facilitate; but yield more value the second season also.

"The system is by no means novel. I have seen it adopted on a small scale in the Scottish border counties twenty years ago. Impressed with its merits in upland districts, the Highland and Agricultural Society of Scotland, in 1860, offered a prize for the best essay on the subject, for which the writer successfully competed, and during the last three years it has rather extended—partly on account of the rapid progress of upland reclamation, and partly from the high prices obtained from wool, lambs, and mutton.

"Allow me to add, that any system which seeks to increase stock produce deserves the consideration of corn farmers, as the difference between the prosperity of the exclusive corn farmer and that of the farmer who adopts the mixed system of husbandry is gradually widening. Happily there are evidences in several quarters that corn farming is about to undergo a change, and it is hoped that the all-important question—How can clay land be farmed so as to carry sheep profitably? will be soon and satisfactorily solved.

"I am, Sir, your obedient servant,

"JAS. SANDERSON, Land Agent,

"15, Manchester Buildings, Westminster, Sept. 16."

Modes of Providing Seed Wheat.

To the Editor of THE CANADA FARMER:

Sir.—Almost every farmer in Canada knows to his cost how soon each variety of wheat degenerates, so that after sowing seven or eight times, it does not produce one-half as much as at first, even although sowed on land that never produced wheat before.

Now, everybody will agree that any plan which promises to lengthen the time that any variety will yield good crops is worthy of careful consideration.

I have thought for some time past that the following would be a good plan:—Suppose a farmer gets a new kind of wheat (as good as the Fyfe when first introduced into Canada), he sows it, and of the produce he lays by one-half, and sows the other half next season. The following year he takes one bushel out of the half he has laid by, and sows it to produce seed for the coming year. Next year he takes another bushel from the original stock laid by to produce seed for the following, and so on, to the last, as long as it will germinate. Or, suppose for example, a farmer gets one-half bushel and sows it. The first year's produce is ten bushels. He lays by five, and sows the remainder the second year. The third year he takes one bushel out of the five laid by, and sows it to produce seed for sowing on the fourth year. The fourth he takes another bushel out of the original stock laid by, and sows it to produce seed for the next year, and so on till the eighth year his seed is only the third growth from the original half bushel. The only drawback to this plan is, will wheat retain its vital power for four or five years? We know that some garden seeds will.

Could you inform me through THE CANADA FARMER how long wheat will keep without destroying its power of germinating? It would not matter much if one-half would not grow, for then a person could sow two bushels each year instead of one.

Hull, Sept. 5, 1864.

DAVID CURRIE.

HERB SANGUINALIS, THE CLOVER OF CALVARY.—We have been favoured with the inspection of a curious plant, raised in the garden of the Hon. W. A. Black of this city, which in its conformation must be interesting to the eye of a Botanist, and calculated to excite strange emotions in the heart of a Christian. Every spot is sacred which has been hallowed by the footsteps of our Divine Redeemer; every tree,—every plant,—every flower has its associations, which grows, and blooms, and withers amidst the scenery,

of Palestine. We connect every thing around the walls of Jerusalem with his labours, his sufferings, and his death, and we can hardly call that superstition, which strains the imagination to convert the natural objects of the Mount of Olives and Mount Calvary into symbols of our Saviour's martyrdom. In this manner we have almost transformed the Passion Flower into a sacred thing, and found in its stem and stamen, in its bud and blossom, something emblematic of the Immolation of the Cross; and although not so gorgeous, yet not less curious, not less to be admired, to this little *trifolium*, we are not sure of its botanical name, but it may be called by Christians, *The Clover of Calvary*. This plant is said to grow in great luxuriance in the place where our Lord was crucified; and although its flower is insignificant, in its marks and combinations it is very wonderful, and requires not the fancy of Jeremy Taylor or the poetry of Keble, to extract from it sacred recollections of the Divine love. On every green leaf there is a bright red spot, as though a drop of blood had recently fallen upon it, and as it withers it fades into the same dull color which blood assumes after it has lost its vitality and moisture; but the greatest curiosity is in its seed vessel, when fully ripe, which being carefully opened and unrolled presents the most perfect miniature of a *Crown of Thorns*, so severe and elaborate as to be readily regarded by the pious enthusiast, as intended for nothing than the model of the sacred coronet which once encircled the brow of our loving Lord, and is now exchanged for a Crown of Glory. The Botanist will survey it with wonder and delight, and if he be a Christian it will be wonder mingled with emotion of awe and admiration, which are to be felt, but not to be described. And being hitherto unknown in this country, both the student of nature and the disciple of the Cross will be amply compensated by a careful examination of this beautiful specimen of Asiatic Grass.—*Church Record.*

PREVENTION OF SMUT.—The following preparation may be relied on to prevent smut in wheat. Spread the grain rather thinly on the barn floor, and sprinkle it with human urine at the rate of three to four quarts per bushel. Then add from one to two quarts of fresh slacked lime, and shovel the whole over until the kernels are uniformly coated. This should be done immediately before sowing, to prevent injuring the seed. This dressing will also give a quick and strong start to the young growth. A strong solution of blue vitrol, or sulphate of copper, used in the same way, is efficacious in preventing smut, but the first-named preparation is often available where the vitrol cannot be readily procured.

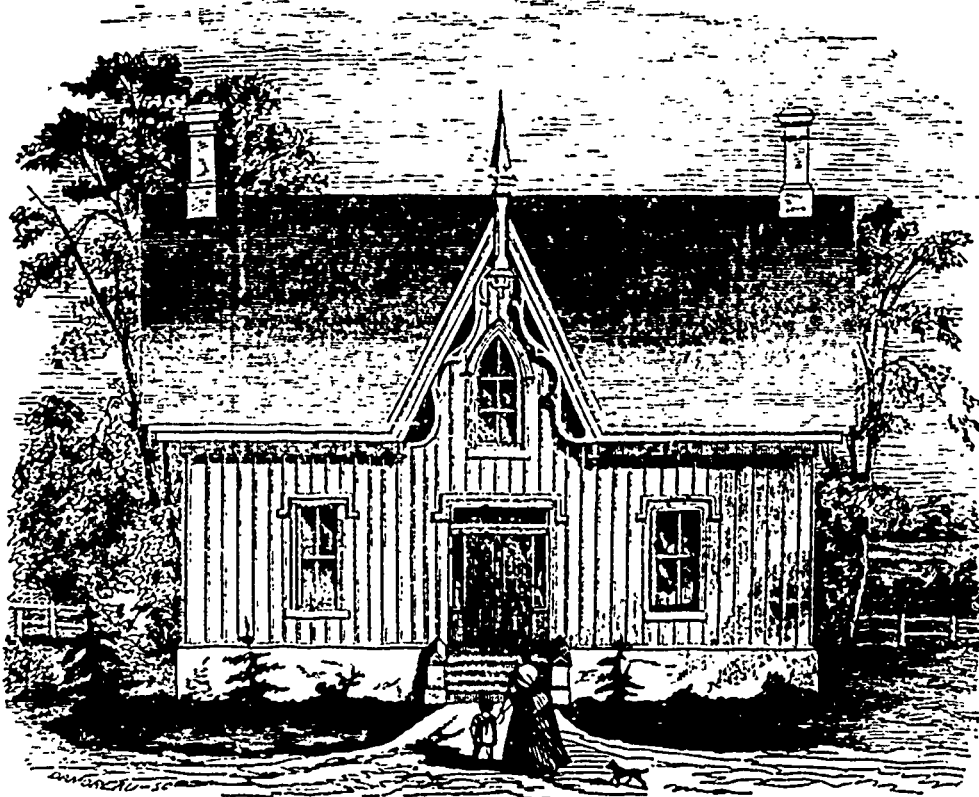
CERING STRAW.—There is nothing that cures so finely as oat straw. A pale green tint, like that of hay, especially when cut by the straw cutter. The very smell is like the fragrance of hay. Then there is the berry—white, plump and heavy—heavier than when ripened too much. This seems strange, but it is true. We ripen too much. People are afraid to put the scythe in when yet quite green. Too often, however, will other work crowd the harvesting, till the straw is white and begins to break down. Mowed early; bound, or put up in cocks, a few days after—or sooner—and there left—the cocks with bay caps; or, if bound, in stooks crowned with a cap sheaf; for weeks or more. Then draw in. You will then be satisfied without further proof.—*Valley Farmer.*

GERMAN ECONOMY.—A late tourist in Germany describes the economy practised by the peasants as follows: "Each German has his house, his orchard, his roadside trees, so laden with fruit that did he not carefully prop them up, tie them together, and in many places hold the boughs together with wooden clamps, they would be torn asunder by their own weight. He has his own corn plot, his plot for mangel wurzel or hay, for potatoes, for hemp, &c. He is his own master, and therefore he and his family have the strongest motives for exertion. In Germany nothing is lost. The produce of the trees and the cows is carried to market. Much fruit is dried for winter use. You see wooden trays of plums, cherries, sliced apples, lying in the sun to dry. You see strings of them hanging from the windows in the sun. The cows are kept up the greater part of the year, and every green thing is collected for them. Every little nook where the grass grows by the roadside, river and brook, is carefully cut by the sickle, and carried home on the heads of the women and children, in baskets or tied in large cloths. Nothing of the kind is lost that can possibly be made of any use. Weeds, nettles, nay the very goose-grass which covers the waste places, are cut up and taken for the cows. You see the little children standing in the streets of the villages, and in the streams which generally run down them, busy washing these weeds before they are given to the cattle. They carefully collect the leaves of the marsh-grass, carefully cut their potato tops for them, and even, if other things fail, gather green leaves from the woodlands."

Rural Architecture.

A Cheap Farm House.

The accompanying engravings form a complete set of designs for a cheap farm-house, planned to give accommodation for a large family. It is intended to be built and framed in the ordinary way; but instead of clapboarding outside, boards are to be planed, tongued, grooved, and nailed to the girths, the joints being covered by 3-inch x 1½-inch batten. There will be a cellar under the main building with stairs leading thereto under the main stairway. The cellar can be made as large as the main building, or any size to suit the wish of the proprietor. It can either be built with brick walls or sheeted up with 2-inch pine or cedar planks, spiked to girths and braces. The sill of the frame is to be 10 x 10, resting on cedar posts, let 4 feet 5 inches into the ground, and resting on 12 x 3 sills to prevent settling. The upright posts forming the frame of the building are to be morticed and tenoned into the upper sills and plate, and properly braced with angle braces wherever practicable. The rafters are to be 6 x 3 inches, well spiked to a ridge piece, notched down and spiked to the plates and valley rafters, and well tied together with 6 x 2 collar braces. The roof is to be covered with 1-inch dry, rough boarding, not exceeding 10 inches wide, and well nailed to the rafters; the ridges are to be covered with 1-inch ridge boards, and 2½-inch rolls. The cornices are to be finished by nailing 1½-inch beaded boards 10 inches wide to the ends of the rafters, and fastening the eaves-gutter to it with 3-inch down pipes to all the angles of the house, and connecting with drains conveying the water to a cistern. The gables are to have simple tracery fastened to them with turned pinnacles, as shown on the elevation. The roof is to be shingled with good split pine shingles, 4½ inches exposed to the weather, and laid in hair mortar ¾ inch thick. The floor is to be of 1½-inch tongued, grooved, and edge-nailed boards, perfectly dry, and clear of all unsound knots, &c. The kitchen and sitting-room are to be sheeted all round to the height of 3 feet, with 1½-inch narrow beaded boards, and capped with 1½-inch capping. All the other rooms are to be surrounded with 1½-inch torus skirting, 10 inches wide, and well nailed to the studding. The chimneys are to be built with good red bricks, and finished at the top after the design shown on the drawing. The stairs are to be of the common dog-leg shape; the treads to be 10 inches wide, and the rises 7½ inches. There is to be fixed to the stairs a 3 x 2½-inch pine or walnut hand-rail, with a 5 x 5-inch turned newell at the top and bottom of the stairs, and 1½-inch square "pine or walnut" ballusters securely fastened. The whole of the ceilings, partitions and walls are to be lathed with good sawn pine laths, and finished with two coats of good plastering carried down to the floors. The plaster should be made at least eight or



FRONT ELEVATION.

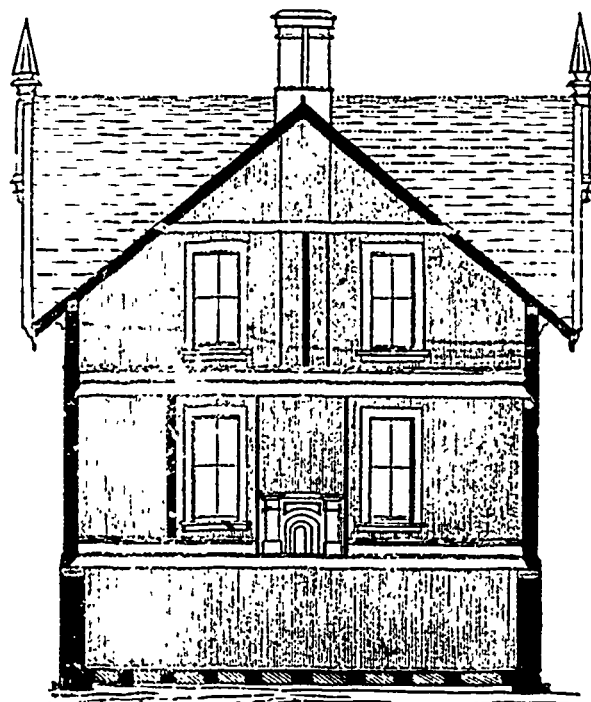
ten days before being used, and mixed with a sufficient quantity of good dry cow hair. The whole of the exterior doors are to be 2-inch framed, and pannelled doors, hung with butt hinges, and supplied with 8-inch carpenters' locks. All the inside doors may be 1½-inch framed, and four

on pulleys. It might thus be cheapened down to \$600, or even less if the painting were omitted for a time. Of course the outside rough boarding would not require painting. Coloured with some permanent description of lime-wash, it would look very well. If desired, the window and door-frames could be calculated for plastering ultimately, and the lath could be readily nailed to the outside battens. A house boarded and battened outside and in, and then plastered, makes a very dry, warm, comfortable dwelling, and in parts of the country where stone and brick are scarce, while lumber is abundant and cheap, is a very desirable and economical mode of construction.

The appearance of the house shown in the above engravings might be considerably improved by the addition of a verandah and Venetian blinds. A good effect might also be produced by attending to the surroundings, and taking care to have them arranged tastefully and in keeping with the dwelling. Terraces might be made round the house, the garden nicely laid out, and the whole surrounded with an ornamental picket fence. The out-buildings should also be made to correspond with the dwelling in point of style, especially in the characteristic feature of the high-pitch roof. The effect of a building greatly depends upon these and other attendant circumstances and accompaniments. They may seem some of them at least, of small importance, but they ought not to be overlooked by any means.

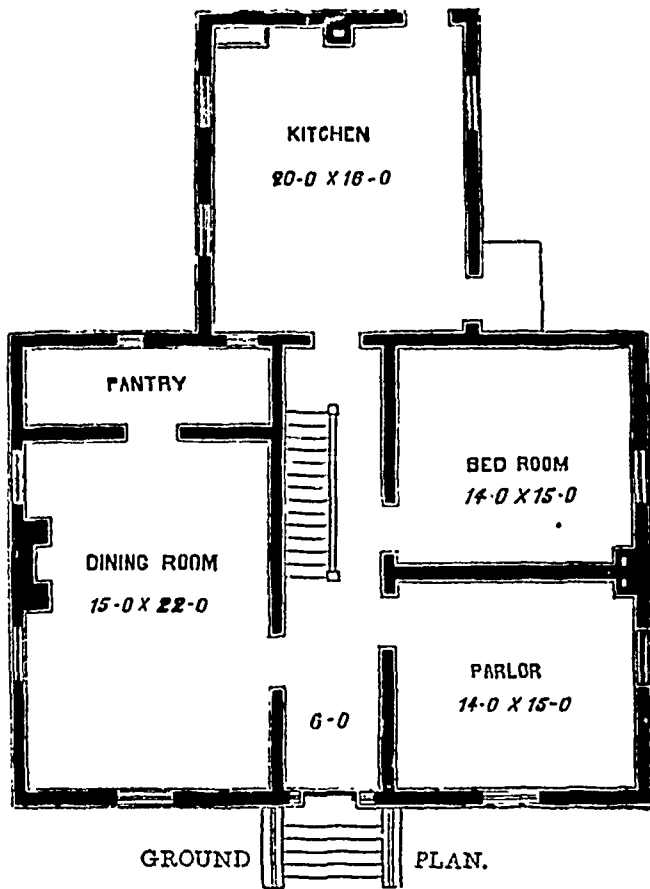
It is rather by attention to the aggregate of inexpensive details, than by large outlay on one particular object, that the comfort and attractiveness of a country house are secured. We are persuaded that a little more regard for what many consider trifles unworthy of notice, would yield a large return of real enjoyment and satisfaction.

It is rather by attention to the aggregate of inexpensive details, than by large outlay on one particular object, that the comfort and attractiveness of a country house are secured. We are persuaded that a little more regard for what many consider trifles unworthy of notice, would yield a large return of real enjoyment and satisfaction.



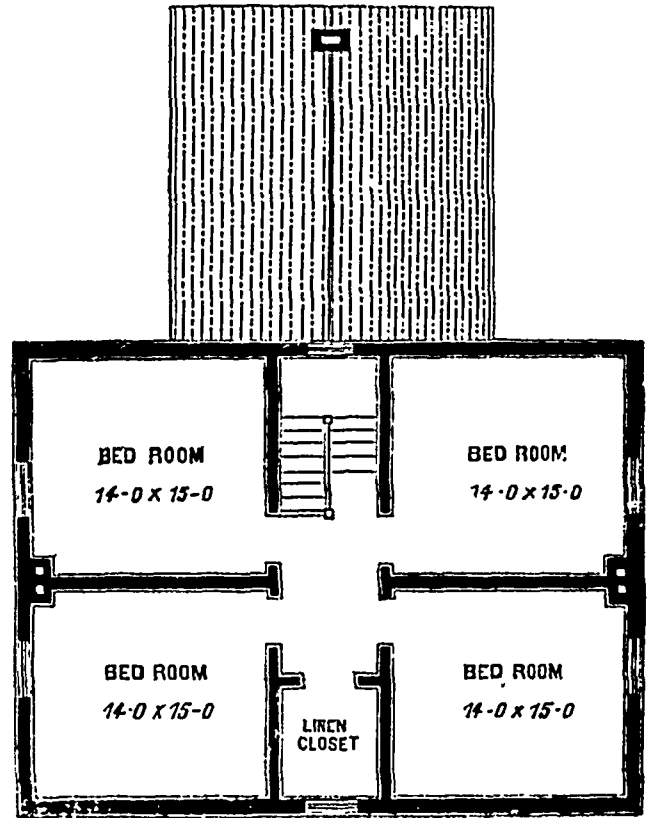
SECTION.

pannelled doors, with 5-inch iron rim locks, and hung with 4-inch butt hinges and screws. The whole of the sashes are to be hung to box window frames, with pulleys, lines, and cast-iron weights, and to have spring sash fastenings. The whole of the exterior,



GROUND PLAN.

[Scale, 12 Feet to 1 Inch.]



ATTIC PLAN.

Shabby Looking Windows.

To the Editor of THE CANADA FARMER:

SIR,—Since the columns of your esteemed and valuable paper are not merely devoted to that which gives nourishment, and which is suitable and pleasant to the palate, but also to subjects which are agreeable to the eyes, or by which the appearance of things around us may be improved, especially if it can be accomplished with but little or no expense, the writer ventures to give a few suggestions by which the outer appearance of many houses, which at present are anything but pleasing to the eye, may be improved. In travelling through the different parts of this country, we frequently observe that the windows of the houses have a somewhat shabby appearance, rather more so than any other part of the premises; the putty which has been used in glazing the window panes is either partly or totally broken out, and many panes are fastened with small nails; and although the good housewife may wash her windows ever so clean, they nevertheless have a dim and gloomy appearance. As the windows of a house may be compared to the eyes of the human body, particular care should be taken to remove or obviate that which tends to darken or otherwise injure or destroy either; and as no person however well dressed and smooth faced he may be, makes a pleasing impression if his eyes are dim, gloomy and sickly, neither is it agreeable to the eyes to notice a house, which otherwise is in good order, but in which the windows are defective for want of putty which has fallen off. To re-putty the windows is not only an irksome task, but also a great inconvenience to the inmates of the house, as it not only requires the windows to be taken out, but the curtains and other fixtures to be removed, by which the fair sex generally get the largest share of trouble and work. And even if a person has gone to all that trouble, outlay and inconvenience, he will find that after the lapse of a few years his windows are again in the same "putty-wanting" state, and he will hardly again undertake the task of re-puttying; the windows are left to their own fate, and his dwelling maintains its sombre aspect. The reason for the falling off of the putty may be particularly ascribed to the climate. Our sudden changes from wet to dry,

from hot to cold weather, cause to be extracted from the putty, as well as from the oil-paint, the adhesive and oily substances, and thus prevent both from performing their functions any longer.

To remedy this apparent difficulty, it is only necessary to change the windows in those houses which are thus affected; that is by placing the side of the window on which the putty is inside of the house, and in order to obviate the occurrence of that unpleasant aspect in buildings in progress of erection, the putty side of the window should from the outside be placed inside of the house: if this be done there will be no fear of the putty crumbling away, and the aspect of the house will be materially improved. Some parties may remark that by placing the putty side of the windows towards the rooms in the houses will not look so well from the inside; but to this objection may be replied, that the inside of a window, generally, is two-thirds or three-fourths screened by curtains, hence only a small part of the sash is seen, while on the outside of the house the whole window is exposed to view, and if the panes of glass are well glazed, and the putty painted like the sash, it will have the appearance of a well belleted sash. Another objection to the suggested change, advanced by some parties, is: that the water will run in between the glass and the sash and will cause the latter to rot, which does not occur when the putty side of the window is placed outside. To this latter objection may be replied, that the sash is equally liable to rot in windows when the putty has crumbled off, and that in order to prevent water from entering between sash and glass it is only necessary to "bed" the glass, that is to put a thin layer of putty on the sash, and press the pane into this layer, by which every crevice will be filled up, and then proceed with the usual puttying; in fact, the "bedding" of the panes ought to be done in all good glazing. It is rather singular that the show windows in stores and shops are invariably made so that the putty-side is toward the counter, but that the other windows of the same building are frequently the reverse. The reason why the show windows are made in this manner is obviously for the purpose of giving them a better aspect, and in making it more convenient to repair a broken pane of glass; and if that reason holds good in one case it surely cannot prove objectionable in the other. The writer has for a number of years built and altered houses on the plan suggested, and has had ample experience to convince him that for durability, convenience, and good appearance, it is decidedly preferable to have the putty side of the windows towards the inside of the house and not facing the street.

OTTO KLOTZ.
Preston, 7th Nov., 1864.

Entomology.

Grubs for Identification.

To the Editor of THE CANADA FARMER:

SIR,—Enclosed you will find two specimens of a grub which have nearly destroyed a young orchard of apple and plum trees for me during the present season. They commit their depredations under the outside bark, eating up the green layer. The trees seem to show scarcely any marks of their ravages, except a sickly appearance, which might be attributed to dry weather, such as we have had the past summer. But on close examination the bark appears of a dark colour externally, with some slight wounds, as if perforated by some of the beetle tribe of insects. Upon attempting to remove the bark, which easily crumbles away, we find the inner bark eaten as fine as dust, and in many cases the tree completely girdled. In two instances I found the trees penetrated to the very heart in numerous places. I also find they have destroyed several young maples for me in like manner.

Can you, or some of your correspondents, inform me of any method to rid my orchard of these pests, or to prevent their attacks in future? C. B. H.

Woodstock, Aug., 1864.

P. S.—The trees were mulched with long manure from the horse-stable. Had this any influence in the matter?

NOTE BY ED. C. F.—From the appearance of the worms sent, we think they are probably the larvæ of the Apple-tree Borer (*Saperda bivittata*), yet it is possible they belong to another of the beetle family, the thick-legged Buprestis (*Buprestis femorata*). In either case the best remedy known to us, when the worms have first made a lodgment, is to hunt them out with a knife and kill them. When they have penetrated so far as to make it difficult to reach them in this way, a little scalding hot water from the spout of a tea-kettle may reach them. The thorough washing of the trees with soft soap, over the trunk and large limbs, in the beginning of June and again about three weeks later, is a very sure preventive.

The Dairy.

A Cheshire Dairy Farm.

MR. HAROLD LITTLEDALE, of Liverpool, owns a large extent of land near Seacombe, on the western side of Birkenhead, and some hundreds of acres of his property near his house he farms. His farm includes 500 acres of arable land and 150 acres of poor grass land. The five-course rotation is adopted, viz: 1st and 2nd years, Italian ray-grass; 3rd, oats; 4th, green crops, as turnips, potatoes, mangel wurzel; and 5th, wheat. The green crops, together with large purchases of grain and cattle food, go to the maintenance of a large herd of dairy cows.

Ninety of the finest Yorkshire large-framed productive cows were standing in the stalls at the time of our visit, and about 1,000 quarts of milk are daily taken from them. From 800 to 1,000 quarts a day are the usual produce, 200 gallons being sold daily in the neighbourhood, and the remainder being churned.

The buildings—a remarkably well-arranged, commodious and neatly-kept homestead—have been erected with a view mainly to the accommodation of a large dairy stock. Four parallel ranges of buildings—three of them byres—abut on a cross range of higher buildings, at the back of which are threshing barn and machinery for grinding corn, cutting chaff, churning, &c. There is ample accommodation, both for housing the live stock, and dealing with the produce of the farm, and the apparatus includes mill-stones, threshing machine with conical drum, chaff-cutters, corn and cake crushers, churns.

The cows, milked at 4 a. m. and 3.30 p. m. are fed at 7 a. m., 1 p. m., 5 p. m., and 6 p. m., on hay, grains, turnips, mangels, and hay chaff. A good bull is kept, and the best cows are kept on and calved on the premises. Many, however, are every year sold off, and others bought in their places, to keep up the supply of milk. They are generally bought in at their prime, four or five years old, and kept two or three years before being disposed of. The pleuro pneumonia has made frightful havoc in the herd on four several occasions during the past twenty years, more than 100 having been lost in this way at different times. When the supply of milk exceeds the sale a considerable remainder exists, which is set in earthen vessels for butter. The churning takes place when the milk is two or three days old, in an upright cylindrical churn with two sets of beaters, one projecting from the upright central axis, and the other from the inner surface of the cylinder.

The management of the herd is in the hands of four men and four women, who see to the feeding, cleaning, and milking. The whole waste of the cow house goes into two large tanks, 60 feet by 13 feet, and 10 feet deep, and is thence pumped over the Italian ray-grass. A 4-horse power engine drives this through a 3-inch pipe and hose over the Italian ray-grass at 200 to 1,000 yards distance. It lowers the tank about 8 inches in an hour, and gets over 4 or 5 acres in a day of 10 hours. This is equal to about 60 tons of liquid applied per acre, which is a pretty fair dressing. Sixty acres of first year, and as much of 2-year old Italian ray-grass thus treated are cut generally four times a year, and provide capital summer feeding for the cows. The ray-grass is sown in autumn, after a thorough tillage and good manuring of the wheat stubble; it remains down two years and is ploughed up for oats. Very heavy crops of grain are obtained.

The mangel wurzels were the finest we have this year seen. The Italian ray-grass, in early July, was promising well for the second cutting, and the wheat and oat crops were looking like more than 5 and 10 quarters per acre. Rent, wages and taxes are all extremely high, as the neighbourhood of a large town would make them. We have nowhere seen cleaner, neater management, either in the field or in the farmery. Liscard is a capital specimen of vigorous suburban agriculture, under the direction of Mr. Littledale's farm manager.—*Agricultural Gazette*.

Fall Feed for Cows.

It's of no use to think of keeping up the quantity and quality of our butter, if we neglect the fall feeding of our cows. When the grass has been bitten by the frost several times, it loses its sweetness and its substance. There may be enough in bulk, but the animals do not like it as well, and it does not make as much milk or fatness. The pasture feed must be gradually supplemented by fodder. And we can well afford to go to the trouble and expense of it, for butter sells at very remunerative prices. Corn stalks not yet dry will generally be eaten up clean, and a few thrown out morning and night are not only relished, but have a direct and marked effect on the

milk product. Sweet apples especially, if fed in reasonable quantities, are good; but do not let the cows have the run of the orchard. Pumpkins are first rate, a few at a time, twice a day, with all the seeds removed. Cabbage leaves, beet and turnip and carrot tops, and such like garden refuse, are excellent. A little dry hay may be also given to advantage, feeding out only what will be eaten up clean. A few pints of bran or corn meal, or a few ears of soft corn, or some oil meal may be fed daily. Yet the change from simple pasturage to this extra feed should be made gradually. All acknowledge the importance of this carefulness in spring when passing from dry feed to grass. There should be similar care exercised in the fall, or the yield of milk will fall off. Cows or sheep that are in good flesh, not to say fat, at the beginning of cold weather are half wintered. Just now it is that feed tells best. The fresh bracing air gives an appetite; the annoyance of heat and flies does no wear off the flesh; animals can feed all day and sleep all night, and the weather is not cold enough to make it necessary to consume much of the food or of the fat, to keep up the animal heat.—*American Agriculturist*.



The Apiary.

Burying Bees.

We extract the following from the correspondence of the *Rural New Yorker* :—

"Being requested by 'A. B. C.' of Westfield, in your paper, to give my plan of burying bees, I will say that I have been in the practice of burying my bees in winter for several years, and have varied somewhat every year. But as reference was made in my note in your paper, of June 18th, to my success last winter I will give the plan then adopted. Selecting a dry piece of ground, I dig a trench one foot deep, one and a half wide, and twenty-four feet long. The trench is endwise to and near a ditch that carries water from my garden; and from the trench I made a small underdrain to carry off any water that might collect in the trench. Across this trench I place sticks of timber, in four or five places; on top of these, lengthwise the ditch, put four twelve feet planks, two and two, the top of the plank being about six inches above the ground. On these planks I arranged my hives, twenty-nine in all, in two rows, leaving the passage holes all open in the hives below, and supers or caps (as I use Miner's and Langstroth's) raised, so as to allow dampness or water to pass off if any collects; then to cover them, I set three posts or crutches, one at each end of the trench, and one in the middle, about four feet high, in which I put a ridge pole. From the ridge pole to the ground place rafters, a sufficient slant to clear the hive, and on them put layers similar to roof boarding for building. At the end of the roof drive stakes one foot from the end of the boards, and set up two tier of boards, one against the roof and the other against the stakes, as high as the peak, and fill between with earth. Cover the roof with straw sufficient to keep the earth from washing through when wet; cover with earth about one foot.

I put two ventilators, one and a half inches in the clear—one near the bottom and the other in the opposite end near the peak. In the coldest weather these ventilators would be filled with frost, which I usually cleared out. They should be arranged so as not to convey light to the bees. I have not generally used ventilators, but think it best. One winter I put thirty-six swarms in one pit without using any ventilators, and they came out well. With the experience I have had I am satisfied that in this northern latitude it is much the best way to winter the little fellows in a place where they can be kept dry, still, moderately cool, and entirely in the dark."

To DESTROY BEE MORNS.—Take a pan of oil or grease at the time the miller is ready to begin to lay its eggs, and insert a wick in the middle of it, and light about dark, set it near your bee-hives, and the millers will be attracted to the light, and being blinded by it, will readily drop in the grease and die.

Sheep Husbandry.

The Cotswolds.

THIS valuable breed of sheep derives its name from the locality in which it originated, the Cotswold hills, in the county of Gloucester, a calcareous group of moderate elevation in Gloucestershire, formerly a part of the great Oolite formation, which extends with more or less of breadth from the moorlands of Yorkshire to the coast of Devonshire. Most of this district was formerly bleak and open downs, in which condition portions of it remain at the present day. Agriculture of late years has been gradually creeping up these elevations, planting and enclosing have been introduced, and by the aid of artificial manures, which are readily transported to what were formerly considered as impracticable portions of the farm, devoted exclusively to coarse, natural pasturage, turnips and the sheep fold are now to be found, alternating with clover and artificial grasses, and the ordinary cereal productions adapted to the soil and climate. The term Cotswold, we are told by scholars, is derived from "Cote," a sheep fold, and "Wold" a naked hill. This district was distinguished in very early times for the number of its sheep, and the fineness and value of their wool. "In their wolds" says the translator of Camden, "they feed in great numbers flocks of sheep, long necked and square of bulk and bone, by reason (as is commonly thought) of the weally and hilly situation of their pasturage, whose wool, being most fine and soft, is held in passing great account amongst all nations." The fineness and heavy weight of the Cotswold fleece are often mentioned by the early writers on rural subjects; and King Edward the 4th, 1464, permitted a number of these sheep to be exported to Spain, where they produced great improvement among the native breeds. Adam Speed, who wrote in 1629, describes the wool of the Cotswold sheep as similar to that of the Ryeland. "In Herefordshire, especially about Lampeter, and on those famous hills called Cotswold Hills, sheep are fed that produce a singular good wool, which for fineness, comes very near that of Spain, for from it a thread may drawn as fine as silk." It is not a little singular that we have no precise or authentic account in any of the writings that have come down to us of the characteristics of this ancient breed, the fate as well as the distinctive characters of which have alike been buried in oblivion.

The sheep that now occupy the same region, and which have done so for upwards of a century, are essentially a long-wooled race, of large size, belonging to the plain rather than the mountain. Of the time and manner in which this change took place, we have no reliable information. It is probable that as the enclosing and cultivation of this elevated region proceeded, shelter by planting and the raising of turnips as a field crop, larger and coarser woolled sheep would be introduced, till a new and distinct breed became ultimately obtained, adapted to the altered and improved condition of the soil and climate. These sheep were formerly of larger size and coarser forms, with, it is said, heavier fleeces than now characterize the breed. Seventy or eighty years ago the practice began of crossing the heavy and somewhat unsymmetrical Cotswold, with what was then designated the New Leicester; and this system of crossing was extensively practiced for a number of years. The result was a diminution of size and weight of wool, and a much greater delicacy of form. After the continuance of this practice of crossing for a number of years, Cotswold breeders became impressed that their sheep were losing too much, both as to carcass and wool, and their constitution not sufficiently hardy to bear the exposure and vicissitudes of their native hills. For the last forty or fifty years, but little crossing has taken place; flock-masters have reverted to the olden type, and depended upon a judicious selection both of males and females from their own flocks. In this way a larger and more uniform animal has been obtained, with a heavier fleece, greater aptitude to fatten, and all the distinctive characteristics of a separate and permanent breed boldly brought out.

Great exertions have been made of late by the Cotswold breeders in England in the improvement of their flocks, and their success in that direction has been of a decidedly marked character. In size the modern Cotswold are superior to the Leicester, and their wool is generally closer upon the body, the staple measuring from 4 to 8 inches, yield-

ing an average fleece in well managed flocks of eight or nine pounds. The wool is strong, of a good colour, rather coarse, but of mellow quality, and commands a good price, as compared with other long wools. In point of form these sheep can scarcely be said, as yet, to have arrived at the same perfection as the improved Leicesters, and, like the coarse Kentish sheep, and other similar breeds occupying rich alluvial grounds, they have a propensity to accumulate fat on the rump, amounting almost to deformity. This defect, however, has been in great measure corrected of late by careful and judicious breeders, so that the modern Cotswolds may fairly vie in point of symmetry and proper proportion of parts with other advanced breeds. In constitution they are exceedingly hardy and will survive for themselves in the more exposed situations. The ewes are prolific and good nurses, and the lambs are early covered with a close fleece. The mutton of this breed is described by Mr. Ellman, the celebrated Southdown breeder, more than a quarter of a century ago, as "fine-grained and full-sized, but capable of great improvement by proper crossing. The Cotswolds differ from the Southdowns in several particulars; the skin of the former is much thicker than that of the latter; the head long and thin; ears wide, and not too thin, having no wool but a tuft on the poll; wool below the hock considered objectionable. On the Cotswold hills they never allow two rams to run together." Since Ellman's time the improvement of this steadily-extending breed has been slowly, perhaps, but surely progressing.

The Cotswold breed was introduced into the United States upwards of thirty years ago, but it does not appear to have made much progress in that country till within the last few years. In Canada this breed has already obtained a firm footing, and is every year making sure progress, whether we estimate by quality or number. Mr. Geo. Miller, of Markham, Mr. Stone, of Guelph, and Mr. Snell, of Peel, have done much in importing and breeding Cotswolds; many of their animals being quite equal to the best flocks of the mother country. At the late Provincial Exhibition there were ninety-nine entries of this breed of sheep; the quality of the class, as a whole, was decidedly good, clearly indicating the adaptation of the Cotswolds to the climate, pastures and markets of this country.

In Dr. Randall's recent and excellent work, "The Practical Shepherd," will be found two good illustrations of a Cotswold ram and ewe, bred by Mr. Stone, of Guelph, and sold by him to Mr. H. G. White, of South Framingham, Massachusetts. The ram, "Pilgrim," it is stated, when just off his winter feed, weighed 250 lbs., and yielded 18 lbs. of wool in 1862. The ewe, "Lady Gay," weighed 200 lbs., whilst suckling a lamb, and yielded 16 lbs. of wool. These are certainly great weights, and must not be taken as an average of large numbers, even in our choicest flocks. Other Canadian breeders, whose names we have not mentioned above, have many animals of an analogous character. The advantages of such sheep, with the present high rates for wool, will be appreciated by the practical and improving farmer.

The manure of sheep is much more valuable than that of cattle; thirty-six pounds of the former being equal in value to one hundred pounds of the latter.

INCREASE OF WOOL TRADE.—In 1857, only 55 bales of wool were shipped from the Port of San Francisco. The number of bales of wool received at our wharves here from January to June, five months, was 17,750, being nearly 400,000 pounds, and this was an increase of about 5,600 over last year. The amount of wool sent abroad, this year, during the same time, was 1,500,000 pounds, about 200,000 pounds more than last year. Thus from the small amount of 55 bales, California increased to 17,500 bales, and this in only five months of the year. What will the whole year be?—*California Farmer.*

OIL OF WOOL.—Professor Joy stated at the last meeting of the Polytechnic Association of New York, that "there is a great waste in our woollen manufactories of a valuable substance, that is, the oil of the wool. When wool has been thoroughly cleansed, it is found to have lost thirty, forty, or, in some cases, as high as sixty per cent. of its weight, and the most of this is oil—an excellent oil for some purposes, and especially for soap. There is an establishment in England that takes wool to cleanse for the oil, making no other charge for the work. The oil can be extracted by means of the bisulphide of carbon, which is a cheap article. It is used for extracting the oil from rape seed instead of pressing, and is also used for extracting the alkaloids and the essential oils of plants. It has been stated that it leaves no odour."



The Breeder and Crazier.

Poor Stock-Farming and How to Improve it.

To the Editor of THE CANADA FARMER :

SIR,—The want of better seed grain than is generally sown by the farmers down here, will be most severely experienced this winter. The bulk of our oat and pea crops are still unharvested. For several weeks they have lain rotting on the ground, or mouldering in stooks. It has been beyond the power of the farmer to house them, for this month has been one of almost constant rain; indeed, quite so with the exception of now and then a fine night or a casual day. The little patches of flax, which seldom, on any farm, exceed a quarter of an acre, is the only crop that has profited by the moisture. The straw of the oat crop will be worthless as fodder; the grain sprouted and musty. The pea-straw will be useless; the peas nearly so. As to wheat so little of it is grown here that its loss will not generally be felt. Most of the hay was harvested before the rainy weather set in, and it is upon this crop the cattle of most of our farmers will have to depend for their winter sustenance. Individually speaking, the farmer has not hay enough to feed his stock through the severe months of winter. And if any one farmer has any at all to spare, it is not to his brother farmer he can sell, though his cattle may be starving to death, but to the richer townsmen or merchant. The means of most of our farmers are too circumscribed to allow of their buying hay to feed. There is but one alternative of cruelly starving them, that is to sell or kill.

In less than a month from this date, the cattle will all be housed for the winter. The musty straw, let the poor beasts be ever so pinched with hunger, will not be sufficiently nourishing to keep them in that condition, which will prevent the necessity of "lifting them by the tail," before its usual period. When the cattle are once housed here, they are duly installed prisoners for the winter. Taken from the fields as soon as the snow comes, they are tied by the head in a narrow stall in the stable, nearly or quite dark; and are fed upon straw, and watered from a pail. They have no litter to lie upon—unless a few blades accidentally scattered, can be so construed. Their dung is never taken away; and they receive neither exercise nor airing. To keep them clean would cost a little trouble, and the stall would not be so warm. With such impoverishing food, and the want of wholesome air and proper exercise, the poor creatures' health and strength gradually fails; till at last it cannot rise. It is then daily lifted and a little hay given it, but very sparingly indeed. A farmer who has not to lift his cattle in the spring, though they may be terribly weak, is considered to have passed through a very easy winter. By such management as the above, the farmer here winters his stock over. But when the day comes in the spring that the poor beast is driven or carried from his prison-stall, he is a wretched and pitiable object. Hardly able to move, for he has become cramped from his long confinement, he is turned out to get his living again in the fields. The warmth of the sun, in a few days, loosens the roots of his hair, or coat, to which is attached from half an inch to an inch all over him, a coating of his own filth. As the coat is shed, this all peels off, leaving the creature bare. The young coat soon grows again, but this does not lessen the cruelty. The great depth of snow which falls in this part of the country keeps the grass very fresh during the winter, and immediately the snow has melted away, there is tolerably good feeding. Thus the poor beast, if he does not die at once from the great change,

is enabled as soon as he is turned out to get his living. This is a common but faithful picture of how cattle are here treated during the winter. And if it is so in ordinary years, what must it be this year, when a large proportion of feed is deteriorated in nourishment, from the effects of a wet harvest? Now could this have been prevented? Could the oats and peas this year have been harvested in time to have saved them? Can anything be done to secure our farmers the harvesting of their crops ten days or a fortnight earlier? There could, if our farmers would procure seed oats and peas of the earliest kind. As it is they sow the latest and foulest; and consequently the most unprofitable. They never think of changing their seed. The same kind that their great grandfather sowed, and on the same ground too, are they still sowing. With the same ancient, triangular shaped wooden harrows, with wooden teeth, do they still make an attempt to cover their seed. With wooden ploughs, with a few pieces of iron on the face of the mould board, and a wheel at one side of the beam, do they still plough—if ploughing it can be called. True enough, the soil is very poor, the season very short; but the poorer the soil, and the shorter the season, the greater the necessity for proper tillage and better seed.

Our meadows too are a disgrace. We have first a crop of dandelions, then a crop of devils' daisies, or what in Canadian lingo is called "margarite," followed by a crop of Canadian thistles. We hardly know of the existence of such implements as mowing and reaping machines. We are content as we are. To see our fields clothed with weeds, in a bloom of yellow, white, and purple, in one season must, as it has already done, first impoverish the land, and then of necessity our habitant farmer. FRANCO. Quebec, Sept. 27, 1861.

Feeding of Horses in Norway.

THE horses in Norway have a very sensible manner of taking their food. Instead of swilling themselves like ours with a painful of water at a draught—no doubt from the fear of not getting it soon again—and then over-gorging themselves with dry food, for the same reason, they have a bucket of water put down by their allowance of hay. It is amusing to see with what relish they take a sip of the one and a mouthful of the other alternately, sometimes only moistening their mouths as a rational being would do while eating a dinner of such dry food. A broken-winded horse is scarcely ever seen in Norway, nor have I met with one in the slightest degree so effected. The animal is not compelled to overload its stomach, and distend the vessels with unnecessary quantities of water or hay at one time. Broken-wind is understood to be a rupture of the vessels connected with the lungs, and to be brought on by over-feeding, or over-exertion with a full stomach. In a field, when left to himself, the horse is perpetually eating. He does not fill himself at once like a cow, and remain then for three or four hours without food; yet we treat him like a cow, giving two or three feeds only in the day, and he consequently fills himself too rapidly, and without sufficient mastication. Probably many of the diseases of our horses arise from this unnatural custom. The horse probably knows better than the groom when he should eat and drink, and would be more free from diseases if left to his own discretion.—*Laing's Tour in Norway.*

Live Hogs.

To the Editor of THE CANADA FARMER :

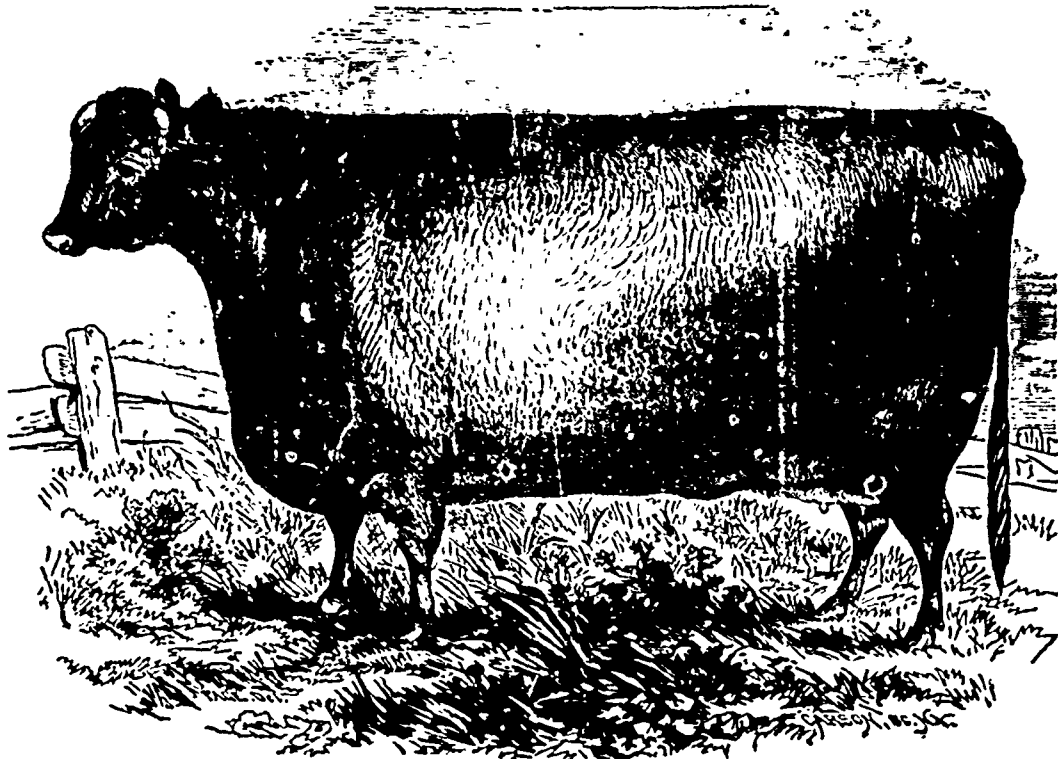
SIR,—I get a great number of letters from farmers inquiring what weight and description of live hogs we are buying at Hamilton. Allow me, Sir, to answer those inquiries in one letter through the medium of your widely-circulated paper. At present the Hamilton packers are paying 4½ cents per 100 lbs., alive, for prime fat grain-fed hogs, weighing 180 to 250 lbs., averaging say 220 to 230 lbs., as even in size as possible. A reduction in price, according to quality, is made on sows that have had pigs. A few prime hogs of 300 lbs. weight would be taken at half-a-cent per lb. under the price for the medium-sized one.

Should the price rise above or fall below 4½ cents, I will communicate such fact to THE CANADA FARMER, and any other item of information I may think would be useful for our farmers to know.

In conclusion, let me again recommend improvement in the breed of hogs, and also some attention to summer-feeding. Keep over a few bushels of peas for that purpose. SAMUEL NASH, Pork Packer. Hamilton, 4th Nov. 1864.

We have much pleasure in presenting our readers with an engraving, sketched by Mr. Page, of New York, of one of the highest-bred animals ever imported into this Province, or any other portion of this continent. The *Queen of Athelstane* formed part of the recent importation from Britain by the Hon. David Christie of the Plains, P. M., C. W., consisting of three cows, a heifer and a calf, which were exhibited at the late Provincial Show, at Hamilton. These cattle are from the celebrated herd of James Douglas, Esq., Athelstaneford, E. Lothian; a gentleman that occupies a favourite position among British Short-horn breeders. The other two cows were the "Pride of Athelstane," a red three-year-old, got by "Sir

FIRST PRIZE SHORT-HORN COW, AT THE PROVINCIAL EXHIBITION, HAMILTON, 1861.



QUEEN OF ATHELSTANE.

PEDIGREE OF THE QUEEN OF ATHELSTANE.—Red; calved 29th April, 1860; bred by James Douglas, Esq., Athelstaneford, Scotland; the property of Mr. Christie, Brantford, C. W.

Got by Sir James the Rose (15290).

Dam Playful, by Fourth Duke of York (10167).

g d Place 3rd, by Fourth Duke of Northumberland (3639).

gr g d Place 2nd, by Duke of Northumberland (1910).

gr gr g d Place 1st, by Second Earl of Darlington (1915).

gr rr gr g d Place, by Son of Second Hubback (2082).

gr gr gr gr g d a cow of Mr. Bates' of Kirklevington.

"Queen of Athelstane" obtained, in 1861, the first prize at the Highland Society's Show at Perth; in

excellence. The only possible objection that could be urged against this superb importation was, that they were in too fat a condition for breeding stock, but this will no doubt be soon corrected by lower feeding and careful management. The way in which some families of the Short-horn lay on fat and muscle, even under moderate keeping, is truly astonishing, and hence the value everywhere attached to this world-renowned breed as beef-cattle. We sincerely wish Mr. Christie "good luck" with his fine importation, and trust that his enterprise will be profitable to himself as it cannot fail to be highly advantageous to the country.

These animals have carried off first prizes and gold medals; some more than once, at the great National and Provincial Shows both of England and Scotland, and they come to Canada, therefore, stamped with the highest order of excellence. At the late Provincial Show they attracted a constant current of admirers, who narrowly scanned their characteristic points, indicating a very advanced type of Short-horn

1862, was highly commended at the Royal English Society's Show held at Battersea; 2nd prize at the Northumberland Society's Show at Belford; the first prize at the Yorkshire Society's Show held at York, beating the animal that was placed before her at Belford, and one of the heifers placed before her at Battersea. In 1863 she won the 2nd prize at the Highland Society's Show at Kelso; in 1864, the first prize at Saltoun, and was highly commended, and the reserve number, at the Royal English Show at Newcastle.

Her pedigree shows that in descent as well as intrinsic excellence the "Queen" is a first-class animal.

and unfair that we are inclined to think the writer must have penned it under the influence of bitter disappointment, a state of mind in which it is difficult, if not impossible, to judge fairly of things. The letter is neither just to Canada nor the adjacent republic, and though its writer was, doubtless, very sincere in signing himself "Honest John," he made choice of an unfortunate misnomer.

Correspondence.

Comments by "Nota Bene."

THIS correspondent writes from Sidney, on sundry topics, as follows:—

HARVESTING CORN.—"J. E." would stook his corn much faster by using a corn horse. The animal can be made in a few minutes. Take a light tapering pole, say 10 feet long. Put two legs into the larger end, so as to elevate it three feet from the ground. Bore a horizontal hole through the pole three feet further back, and insert a moveable pin projecting 1½ feet on each side. Place your corn, as fast as cut, in the four angles thus formed—bind your stook—pull out your transverse moveable pin, and lead your horse between the rows to the next stooking place. It requires two to stook, but one need only be a twenty-five cent horse. Knives inserted in a straight handle, at an obtuse angle, are better than sickles. A single blow cuts up a hill of corn.

MIDGE PROOF WHEAT.—Where the midge abounds, farmers would do well to abolish fall wheat altogether for a few years. Its cultivation is being resumed in this locality, after a period of almost total cessation. The writer got 30 bushels per acre this year from barley stubble, entirely free from midges. The same field yielded 40 bushels of barley last year. Barley is the most reliable and profitable *midge proof* that I know of.

ERROR IN LAST NUMBER.—In an article headed "Notes on Sundry Topics," page 322, 16 li. rom the bottom, for "hair" read "laws."

SUBSTITUTE FOR FIFE WHEAT.—"J. E." of Coldsprings, asks:—"Can you or any of your readers inform me where I can get a variety of wheat that is adapted to take the place of the Fyfe, as I think that kind is nearly run out?"

THE PLOUGH AS AN EXTERMINATOR OF CANADA THISTLES.—On this subject "J. E." of Coldsprings writes—"In your number of October 15th I see an article signed 'D. H. O.', in the *Country Gentleman*, in answer to some inquiry about killing Canada thistles. I agree with 'D. H. O.', so far as cutting goes, but differ from him in regard to the plough. 'D. H. O.' seems to put no value upon the plough as an instrument of torture to that pest of the farmers. I consider it of essential benefit, and would just say to those wishing a cure for the Canada thistle, to give the field a good summer fallowing, by ploughing from three to five times, as circumstances will permit. Then seed to grass (clover and timothy), cut for hay two or three times; then pasture one or two years. Were this mode adopted and followed up by a proper course of cultivation afterwards, I do not think you, Mr Editor, would have so many communications about Canada thistles."

DRAIN TILE MACHINE WANTED.—"D. Norton, Brick-maker, Bolton, Albion, C. W.," writes:—"Will you allow me to inquire where I can procure any information concerning a Drain Tile Machine, the probable cost, and also its capabilities? If I could see a drawing of an Improved Canadian Machine, I would prefer it. I have no doubt if such a thing appeared in THE CANADA FARMER, many persons of my trade would be well pleased to see it."

"HONEST JOHN."—A letter on farming life in Canada, with the above signature to it, has come into our hands for publication, but it is so palpably one-sided

TAXATION PROPOSED.—"T. C.," of Craighurst, writes:—"I have noticed in my neighbourhood, and the country in general, that when some enterprising individual obtains a thorough-bred animal of any kind, some one or two others are sure to become possessors also, whereas, before the former possessed an animal, there were nothing but 'runts' (as they may be properly called), in the vicinity, which were allowed to run at large, thus hindering the introduction of good stock. Now, I propose that a Bill be introduced into Parliament to lay a license fee on the possessors of entire horses, bulls and boars. By this means, I think, there would be fewer but better animals in the country; fewer, because every Tom, Dick and Harry would not care to keep an animal on account of the expense; better, because he who kept one would wish to keep a good one to obtain custom; a bad animal would not pay, for people are beginning to get their eyes open regarding the importation of good stock."

POTATOES FROZEN WITHOUT INJURY.—"S. Walford," of Albion, says: "Permit me to lay before your numerous readers the following fact which I have this day received from Mr. William Roadhouse, J.P., of the township of Albion. He informs me that in February last, during the severe frosty weather, his potatoes, deposited in a good stone cellar, about 20 bushels in the heap, had become frozen as hard as bullets, and by way of experiment, he threw some

6 or 8 pails of water over them; shortly after doing so, the potatoes became a solid mass of ice. In a few days a thaw took place, the ice and water left them, and they remained during the winter perfectly free from frost, and were not in any way injured."

LARGE POTATOES.—"T. B. M." writes:—"I saw a piece in THE CANADA FARMER of the 15th ult., about the products of potatoes. I am a young farmer in the Township of Scarborough, and have a small piece of ground which I manured well and dug with the spade and planted with the ordinary quantity of seed, in hills. When fit I gave them the ordinary culture, and in digging them up this fall, I found the largest potato I ever saw—it weighed over three pounds and a-half. I can produce bushels that will weigh over two and a-half pounds, from the same piece of ground. Beat that, if you can!"

On the same subject, "L. C.," of Ballinacord writes:—"A. J." having written to THE CANADA FARMER, states that he had this year a potato which weighed 2 lbs. 12 oz., and if this could be beat, would like it to be made known. Now, I have raised potatoes this year, several of which weighed over 4 lbs., and I can show five bushels that will weigh 3 lbs. I may also state that for the above five bushels of potatoes I only planted two quarts of seed. Can this be beat?"

HOME-MADE WEATHER INDICATOR.—"L. C. B." writes: "During last winter, while attending a course of lectures, delivered under the auspices of the Board of Agriculture, an idea occurred to me for a simple hygrometer, having tested which, I beg to offer it to your readers. Wood in the direction of its fibre is little affected by moisture; paper is very sensitive thereto. Accordingly, I form an Indicator by glueing a strip of cardboard to one side of a narrow pine shaving, keeping them pressed together till dry. One end of the Indicator I secure in a cleft in a wooden peg, which peg I insert tightly in a piece of board, leaving the other end of the Indicator free to move along a scale marked on the board. At about 3 P.M. of a summer's day during continued fine weather, by turning the peg I adjust the free end of the Indicator to the zero point of the scale. Any increase of moisture then causes the cardboard to expand, thereby moving the end of the Indicator along the scale."

"In the instrument I have constructed for myself the Indicator is 8 inches long, and I have observed a movement of more than 1 inch on the approach of rain."

HYDRAULIC POWER FOR STUMP PULLING.—On this subject, "J. F. C.," of L'Orignal, writes:—"The application of hydraulic power to the extraction of stumps, is, I see, attracting considerable attention in your columns. Some additional knowledge as to the properties of the hydraulic press seems to be requisite. In forcing water from a small cylinder into a large one, the distances through which the two pistons move are in inverse proportion to their areas. The easiest way to find the area of a circle is to multiply the square of its diameter by .7854. The area of a half-inch piston is, say 2, and that of a 12-inch 113; therefore, in forcing the small piston down 12 inches, the large one will be raised 113.2:12.212, say about one-fifth of an inch—not a result, we should say, to warrant the introduction of the principle into stump machines."

"A Farmer" discusses this matter as follows:—"Your Romney correspondent, in No. 18 of THE CANADA FARMER, has stated the advantages of the hydraulic press. By your permission, I will state some of the disadvantages. It is called a 'press' because it is so admirably adapted to giving a tight squeeze, and not much else. It confirms the universal rule in mechanics, that what is gained in power is lost in time or speed. True, with such a press as is described on page 287, No. 18, a man may lift a weight of 576 tons (only the loss of power by friction must be deducted from the weight, or added to the power, or its equivalent), but it is only on condition that his lever is long enough and travels far enough. Supposing each cylinder to have one-foot stroke, and the man to exert a power of 100 pounds; then, in order to raise the said 576 tons 12 inches high he must use a lever twenty times as long at one end as at the other; and that part to which he applies his strength must move 20 feet to force the water out of the small cylinder into the large one, by which it is raised the 576th part of a foot; before he can repeat the process the lever has to be returned, making 40 feet by the lever, which has to be repeated 576 times. Thus the man carries 100 pounds over two miles in one direction, and a heavy lever the same

distance in an opposite one to lift the above weight 12 inches high. The proportions may be varied, but the rule cannot be broken. The hydraulic press constitutes a compound lever thus, the difference in the arms being one, the difference in the cylinders the other; moreover, the cylinder keeps all that the lever gets. The laws of the Medes and Persians are not to be compared for stability with the laws of nature."

PORK AND PEAS.—"A Farmer" writes from Lefroy thus.—Messieurs the 'Pork Packers' have taken some pains to instruct the readers of THE CANADA FARMER in the art and mystery of fattening pigs, but I am afraid their labour will be pretty much 'labour lost,' unless they or some one else will supplement it by informing us how we can grow large crops of peas at a reasonable outlay of labour. Through various channels, and at various times, we hear and read great stories about corn-growing in the States. At one time we are told that crops of 160 bushels per acre are raised, at another that it is used as fuel, and again that it may be bought at 10 cents per bushel and grown for less. No such statements would apply to pea-growing in Canada. We are quite willing to believe that peas make better pork than corn does, but don't think the above-named gentlemen are willing to make so much difference in the price as there is in the cost. Either Canadian farmers must continue to fat pork at a loss or reduce the cost of feeding it. Supposing peas to yield 20 bushels per acre, at 50 cents per bushel, they just about pay rent and labourers' wages, but I never made that of them when converted into pork. Can you, or any of your readers, suggest a plan by which larger crops can be obtained, or the expense of cultivation reduced?"

The "Canada Farmer."

Subscribers to THE CANADA FARMER will please observe that the year closes with the issue of the 15th December. No papers will be sent after that date unless paid for in advance. Parties who are getting up Clubs, as well as single subscribers, will please note the fact and govern themselves accordingly. The "Canada Farmer" is the cheapest Agricultural Paper in the world, and we find it a necessity arising from the low price at which it is furnished, that it should be invariably paid for in advance. For Club terms, see advertisement in another part of the paper.

The Canada Farmer.

TORONTO, UPPER CANADA, NOV. 15, 1864.

The Climate of Canada.

VERY incorrect ideas prevail abroad as to the climate of this country. Our winters are supposed to be arctic in their duration and severity, and our summers, in like manner, arctic in their brevity and coolness. The statement is current that we have frost every month in the year, and "the rigours of a Canadian climate," have become a proverb. Not only in Great Britain and on the European continent, do these misconceptions prevail, but even our American neighbours cherish them to some extent. They confound Canada with Labrador, and the Canadians with Esquimaux. A few years since we were asked in Boston by an intelligent lady, if the people of Canada did not usually travel in the winter season in sledges drawn by dogs. This was a glaring case of ignorance, to be sure, but, in a less degree, similar ignorance exists in many quarters. We are thought to inhabit an inclement region hardly worthy of being styled "home." But the truth is that ours is a singularly pleasant and fruitful land. For natural scenery, varied resources, and ability to sustain a teeming population, we shall search far and wide ere we find a country to surpass the Province of Canada. Our climate has been severely criticised, and its extremes of heat and cold have been much complained of, but the healthfulness of this land is established beyond controversy, and our climatic vicissitudes, though sometimes a source of

inconvenience, are by no means unwholesome. No where on earth do the seasons of the year move on in lovelier, grander procession. In spring, we have a quick awakening of vegetable life and nature puts on her best attire, promptly as a bride on her wedding-morn. Our summer is short but gorgeous with splendour, and bedecked with flowers that can hardly be surpassed; we have oppressive heat at times, and occasionally drouth, but how do our summer showers refresh the face of all things, how welcome is the rain, and how green and beautiful are the fields, the gardens, and the woods when it falls. In autumn, we have the waving fields of grain and tasseled corn; our orchards display apples of gold in baskets of silvery verdure, and we can reckon even the grape among our fruits; our forests present a richly-tinted and many-coloured foliage; we have mid-October days in which the weather is superb; our Indian summer is a splendid valedictory to the season of growth and harvest; a bright and beautiful hectic flush sits upon the face of universal nature as death draws on, and we glide imperceptibly into winter. This though confessedly severe is exhilarating, hardening animal as well as vegetable fibre, while it has its ameliorations and joys in the sea-side warmth that tempers into geniality the clear, frosty air; we have also the merry jingle and fleet gliding of the sleigh, and the skater's healthful sport, together with almost entire exemption from damp and mud, two most disagreeable characteristics of winter in milder climes. The characteristics of this country are only beginning to be known abroad, as its resources are only beginning to be developed at home. It offers inducements rarely surpassed to industrious, energetic, prudent settlers. Let it only be thickly settled with a population worthy of it, and it will take no mean rank among the countries of the earth. Sunnier climes there may be, but a fitter habitation for a manly, vigorous race,—a finer field for displaying the energy, intelligence, and virtues of Anglo-Saxons, we may safely challenge the wide world to produce.

Thatting, and How to do it.

WE have often wondered that there is not more thatting done in this country. Straw is often very abundant, and there are many of our farmers who are quite familiar with the process, having come from various parts of Britain, where this mode of roofing is very common. Not only are ricks, out-houses, barns, and humble cottages often covered with straw roofs in the British Isles, but country buildings of a more pretentious character are sometimes thatted, to give them a rustic air. The present season is not a very favourable one for thatting, as the yield of straw has been short and meagre in many parts of the country. Nevertheless, in many instances it would be good economy to use a portion of the straw for roof and shelter, instead of throwing it all out to cattle in unprotected yards. The following "hints on thatting," from the November number of the *American Agriculturist*, may be useful to such of our readers as do not understand the process:—

"In some countries thatting is a regular trade, but with care any one may do it. It makes a beautiful finish for rustic houses, porters' lodges, well-houses, bee-hive shelters, etc., and is besides the most excellent roofing for ice-houses—so the subject has interest for almost every one. For durability and imperviousness to water, and for warmth in winter and coolness in summer, a straw roof well put on is nearly all that can be desired. Its liability to take fire from sparks is by no means so great as would be supposed, especially after it has been laid a few months. There are many ways of making a straw roof. The mud roofs of the log cabins at the South and West are not unfrequently thatted by laying light courses of straw and binding each with a layer of clay or sods upon the upper end, covered out of sight by the next course, and they look very well.

"Roof frames are prepared for thatch, much as for shingles, so far as the plates, purlines, rafter, and ridge poles are concerned. Upon the rafters are lashed, with well tarred rope yarn, boughs of hazel or Scotch fir in England; nothing could be better

than our hemlock, and in lack of such boughs, long strips of reeds laid horizontally would perhaps be equally good as a basis upon which to lay the straw. This is put in a heap, sprinkled and turned till it becomes uniformly moist, then drawn out in even handfuls, laid in armfuls, and delivered to the man on the roof as he needs it. First a single course is laid at one end, from eaves to ridge, the handfuls lying horizontally, butts out, and projecting over a little as a cornice. When a length of about 3 feet is laid, the straw being put down in even handfuls, each handful pressed close and firmly against the preceding, a strip of hooping stuff, 1 inch wide, half round, is laid on about the middle of the straw. This is tied down firmly to a rafter at several points with tarred rope yarn. An assistant standing beneath thrusts a long wooden needle up through the straw, close to a rafter; the thatcher returns it, and the cord is tied below and cut off. When the end courses are finished, the horizontal courses are commenced at the eaves, the thatcher placing his ladder on the roof so as to give himself a convenient reach. The straw is laid in handfuls as just described, with the butts down, where it covers the end course, it is not quite so thick as elsewhere. The binding strips are placed about $\frac{1}{2}$ the distance from the upper ends of the straw. The second course follows the first, lapping $\frac{3}{4}$ at least, and is bound down in the same way; and so the thatcher proceeds till the ridge pole is reached, over which the upper course is allowed to project one-half. Thus one side of the roof is done, breadth by breadth, and then the other side in the same way. When the second side is brought up to the ridge, the top course of the other side is bent down, and a course laid upon the ends. It is very important that the straw should be compressed as solidly as possible, when the strips are tied—hence the thatcher with a mallet, beats the course of straw down very solid by striking upon the strips, the attendant being ready to tie at the point of greatest compression.

There are several methods of finishing off the ridge; the simplest, and perhaps the best, is to lay a course lapping equally on both sides and held by three binding straps, on each side, fastened not by tying in the usual way, but by pins made of the same half round stuff which forms the strips, notched in the middle so that they may be bent in a U form (like a lady's hair pin). The ends are sharpened and notched by single cuts of a knife or hatchet, so that when driven into the straw they will hold. These strips, it will be seen, are exposed, hence it is a thatcher's pride to have them small and neat so as to look workman-like. Finials or end-pieces made of straw bound tight and hard, of any appropriate shape, give a picturesque finish. The corners of the roof at the eaves, and wherever the wind lifts the thatch, may be pinned down in the same way as described for the top course.

The roof when thus far done, is combed down by a tool made like a hay rake, with the head about 4 feet long,—one end being without teeth and forming a handle 18 inches long. Finally the eaves and ends are trimmed. This is done with a sharp hay-knife or a scythe blade set straight in a handle so that it can be used with a saw-like motion. The eaves are cut off evenly at right angles to the slant of the roof.

Scandalous Cruelty to Animals.

The following narrative, from the *Dubuque Times*, is "going the rounds" in certain American journals, headed, "Fun at an Iowa Fair." To urge by whip and spur, poor, disabled brutes, broken down in the service of man, and extract amusement from their awkward, painful attempts to go, is surely an exhibition of barbarism for which no excuse can be offered, and we hope no parallel found among civilized and christian nations. We envy no man's feelings who is capable of extracting "fun" from such a scene. What must have been the character of the crowd that cheered and yelled, and laughed loud and long at it?

"A very singular contest closed the third annual exhibition of the Dubuque County Agricultural Society, being nothing less than a race in which the slowest horse was the winner, the heat being two thirds of a mile. There were entered for this unique affair, James Cruise's old stallion "Slow Shoes," H. Clark's dilapidated steed, "Rattler," Hiram Wood's bungled up mule, "Big Bug," J. L. Carier's stubborn mule, "Kicker," Patrick Rice's mule, "Throw Up," Aaron Jones' superannuated horse, "Raw Bones," and John Spensley's shabby horse, "Prince Albert." No man was allowed to ride his own brute.

"The animals were brought up to the score in line, and the word "go" was given. Such a race never

was seen before. Each rider was required to force his steed to its utmost speed. "Slow Shoes" went three-quarters of the way and then laid down in the track. "Rattler," like a fool, made good time and finished the heat before any other animal had made half the distance; "Big Bug" limped around as if his existence depended on his going extremely slow, and we guess it did, "Kicker" was extremely obstinate and stopped every foot or two; "Throw Up" was positively balky, and after the first quarter refused to move an inch, despite the urgent requests of three men who tried to pull him along—he would go backward; "Raw Bones" went half the way well, but was too hasty and got in too soon; "Prince Albert" was the slowest and meanest looking hack in the whole lot. He just moved and that was all. Along he drew himself slower than molasses in cold weather, and let the rest of the moving animals pass and re-pass him. He reached the score at last, and won the purse; time, 11 minutes and 45 seconds.

"During the whole contest the crowd cheered and yelled and laughed long and loud. When "Slow Shoes" reclined for a rest, hundreds ran across the grounds to look at him and make fun of his rider. The ass and the extremely mulish "Kicker" never made the heat—their owners are trying to get them off the track yet for aught we know."

West Northumberland Agricultural Society.

We gave a short account of this Society's Exhibition in our last issue, copied from the *Cobourg Star*, but the following communication, sent us by a correspondent, will doubtless be read with interest by many:—

"This old and well-established Society held its Annual Show, at Cobourg, on the 18th and 19th of October. The weather being fine, brought together a large number of exhibitors and visitors. The amount of prizes offered exceeded five hundred dollars, and the entries were about 800 in number. The display of grain, seeds, roots, dairy products, articles of domestic manufacture, and the ladies' department were held in "Victoria Hall," and the stock on the vacant ground near the railway station. There were on the ground about 25 Durhams, and as many Ayrshires, 12 Galloways, and about the same number of Devons. The grades, chiefly Durham grades, were some 30 in number.

"There was a fair display of horses on the ground. The first prize for a stallion was awarded to a fine powerful horse, "The Prince of Wales," owned by the Messrs. Underwood. This horse has travelled for three seasons in the county, and his colts are very promising. The owners of this horse offered three prizes for the best foals from their horse, which added to the show of mares and foals. Mr. Copeland had his imported horse on the ground, but he did not compete for a prize, being present only for exhibition. There was a good display of teams, both for farm and carriage horses; also, single buggy and saddle horses. In the class of one and two-year-olds there were some very promising colts shown. The principal exhibitors of horses were Noble, Beatty, Mulholland, Grieve, Underwood, Allan, Richardson, Pringle, and Burnham.

"The show of Durham cattle was good. If they have on some former occasions been out in larger numbers, they have never been of better quality. We observed specimens on the ground from the stocks of John Wade, H. R. Wade, Craig, Westington, McEvers, Alcorn, &c.

"The Devons were in about their usual numbers. There is less improvement or increase in the county in this breed than in some others. Those shown were from the stocks of Messrs. Eagleson, Mason, Beatty, and A. J. Burnham.

"Of Ayrshires, in addition to the well-known herd of P. R. Wright, there were some fine animals shown by Messrs. McDougall and Pratt.

"There was a good show of Galloways. We believe the second importation ever brought into this Province was into this county, by Mr. Roddick. The grades, principally Durhams, were on the ground in large numbers and of good quality. The milch cows, especially, were worthy of notice.

"The show of sheep was good, especially the long-wools, of which there was a number of fine specimens on the ground, Leicesters, Cotswolds, and their crosses. The principal exhibitors in this class were Wright, Reynolds, Craig, Pratt, Alcorn, Carruthers, &c. The Merinos were all from the flock of P. Hinman. Of short-wools, and under this class both South Downs and Cheviots are classed, which is not

a very satisfactory arrangement, there was a good show. Mr. D. Elliot had a fine lot of Cheviots on the ground; they took quite a number of prizes at the late (and former) Provincial Exhibition. Beside these, Wm. Roddick showed some Cheviot sheep, and the South Downs were from the flocks of Bourn, Burnham, Hall, &c. The show of pigs was not large—it seldom is; they are rather troublesome creatures to get to a show, but what were there were good specimens. Messrs. McDonald, Grieve, Burnham, and McEvers had the largest numbers on the ground. The show of implements was small, confined mostly to an assortment of ploughs, harrows, straw-cutters, a cheese press, and some buggies.

"The Hall made a fine display, two tables the length of the Hall covered with all the various articles of female industry; while around the room were piled the grain, roots, &c. To judge by the specimens shown, one would think that the long severe drouth of last summer had done little harm, as the specimens of potatoes, turnips, carrots, parsnips, pumpkins, and mangel wurzels were certainly large enough for any useful purpose, and did credit both to the goodness of our soil and the skill of the growers. The various samples of grain were all that could be desired for quality, but the quantities were not so numerous as could be desired. Around the Hall hung a large and fine display of quilts in piece-work, patch-work, knitting, &c.; besides home-made shawls, gents' plaids, &c.; while the tables were loaded with all the various kinds of ornamental and fancy needlework, tatting, crocheting, knitting, netting, guipure, embroidery in silk, muslin and woollen, lace-work, wax-work in fruit and flowers, paper flowers, straw of Canadian growth in hats, bonnets, farmers' wreaths, braiding; drawing, painting, &c., &c. Besides these, of which we have not sufficient knowledge to give a proper description, there was a fine show of home-made cloths, flannels, stockings, mitts, &c., showing that our farmers' wives and daughters were preparing for the comfort of their husbands, fathers, and brothers during the rigours of the coming winter. There was a capital show of butter, which must have tested the skill of the judges to decide which was best. The quantity of cheese shown was not great. There was a good display of poultry, geese, turkeys, ducks, fancy fowls, &c.

What Constitutes a Good Farmer?

That veteran farmer, and high authority in matters pertaining to practical agriculture, thus discusses the above question in a recent number of the *Country Gentleman*:—

"In order to answer this question intelligently, we need to understand what good farming is. Well, what is it? We often hear it said that such a man is a good farmer, because he keeps such good fences, or such good tools or implements, or such good cattle, horses or sheep, when that very man is ruining the productiveness of his farm by his unfarmlike system of management, notwithstanding he has good fences, good stock, good buildings, and beautiful surroundings.

"Again, we hear it said that such a man is a good farmer, because he always raises good crops of grain. But good crops of grain are by no means a certain index of a good farmer, any more than good buildings and good fences furnish certain evidence of a good farmer. As it is the cherished affection and decided course of conduct of a man which enable us to form any correct opinions of his true character, in a moral or religious point of view, so we are to decide on the excellence of a man, as a farmer, by his practices and by his system of farm management, when viewed as a whole—as all moving forward in harmonious combination, with everything just as it should be.

"We will enumerate the most prominent and important characteristics by which a good farmer may be designated.

"1st. A good farmer makes as much manure as he can from the productions of his fields, and suffers none of it to be wasted, but applies it annually to the soil. 2nd. A good farmer keeps his soil in a good state of fertility by adopting a rotation of crops, which is adapted to the kind of soil which he cultivates. 3rd. A good farmer will under-drain such soil as may be excessively wet, before he attempts to raise a good crop of anything. 4th. A good farmer is one who derives his profits from the soil which he cultivates, and pays all his expenses from the income of his farm, and at the same time does not suffer the productiveness of his farm to deteriorate. There are a great many farmers in our country who have commenced farming operations on a poor farm, with little or no capital at all, and have supported their families, erected their buildings, paid for



Fruits for Canada West.

THE Upper Canada Fruit Growers' Association has been for several years endeavouring to gather information that will enable it to prepare a list of fruits that may be recommended for general cultivation throughout the Province. The task has been found to be fraught with considerable difficulty, arising chiefly from the fact that so little attention has been given to the growing of choice fruits, and that but few of those who have paid attention to these matters find it convenient to be present at the meetings of the Association. From the information obtained the Society has prepared the following list, which is now laid before the public, in the hope that it may be of some service to those who are inclined to give attention to the cultivation of fruits. *Apples.* The Duchess of Oldenburg, Early Harvest, Lopus Spitzenburg, Fameuse or Snow Apple (especially in the colder parts), Fall Pippin, Golden Sweet, Gravenstein, Golden Russet, Hawthornden, Keswick Colum, Northern Spy, Pomme Grise, Red Astracan, Baldwin and Rhode Island Greening, in the vicinity of the lakes; Ribston Pippin, Roxbury Russet, Rambo, St. Lawrence, Talman Sweet *Pears.* The Bartlett in the milder portions, Belle Lorraine, Flemish Beauty, Louise Bonne de Jersey, Magdelaine, Seckel, Tyson, and White Doyenne. *Cherries.* The Mayduke and Kentish, and, in the milder portions, Black Tartarian, Elkhorn, Black Eagle, Elton, Napoleon Bigarreau Early Purple, Yellow Spanish, or the Bigarreau and Governor Wood. *Plums.*—Green Gage, Washington, Smith's Orleans, Lombard, Imperial Gage, Reine Claude de Beray, Prince's Yellow Gage, Coe's Golden Drop, Lawrence's Favourite, and Yellow Egg. *Grapes.* The Concord, Delaware, Hartford Prolific, and Clinton. *Currants.*—The Black English, Black Naples, Cherry, Red Dutch, Victoria, White Grape, and White Dutch. *Strawberries.*—The Jenny Lind, Barr's New Pine, Wilson, Triomphe de Gand, and Large Early Scarlet. *Raspberries.*—Franconia, Brinckle's Orange, White Antwerp, Fastolf, and Belle de Fontenay. *Gooseberries.* White Smith, Warrington, Crown Cob, Sulphur Yellow, Heart of Oaks, Irish Red, and, because it is not subject to mildew, the Houghton.

Cultivation of the Chrysanthemum.

Read before the Toronto Gardeners' Improvement Society, by Mr. George Vair, gardener to Hon. D. L. McPherson.

Of nearly 20 species of the Chrysanthemum, there are three which come more immediately under our notice. The first is *Chrysanthemum Segetium*, or the Corn Marigold, a native of Britain, 2nd, *Chrysanthemum Asetium*, a native of North America; and 3rd, *Chrysanthemum Indicum* which is the cultivated kind that will now claim our attention.

The Indian species is a native of China—an herbaceous perennial plant, introduced into European collections about 70 years ago. It is extremely hardy, so much so, that many of the varieties withstand the rigorous winter of Canada without any artificial protection, the same as the *Phlox* or *Aconit*. Two varieties flowered pretty well with me last fall, and I am in hopes that in the course of a few years we will have the Chrysanthemum among our collections of summer flowering border plants. We have already one great acquisition in that way, the so-called summer flowering sort imported by our president, Mr. Fleming. I would urge all those that have this variety to endeavour to save seed, from which we have every reason

to think that in a few years we may have abundance of summer flowering varieties. But to return to the cultivation of the Chrysanthemum: For fall decoration of the greenhouse, or a conservatory, they fill a very important place, being in flower when there is little or nothing else. I would recommend to propagate in the last week in January, or beginning of February, by striking cuttings in the usual way. In two weeks they will be rooted and fit for pulling off, which ought at once to be done in half-pint pots, in light rich loam and leaf mould. If the loam is of the right sort, they will not require any sand. When the plants have grown to the height of 6 or 7 inches, pinch off at least 2 or 3 inches. The reason of allowing them to grow to this height and then pinching so much off, is that they will throw out more laterals. The buds about half way down to the stalk are generally better developed and firmer, and throw out from five to six shoots. About the middle of March they ought to be shifted to pints, reducing the former ball of earth somewhat. They require abundance of air on all favourable occasions (otherwise they will be attacked with mildew), and must be liberally supplied with water. As the season advances, if they get plenty of air they will grow rapidly, and they must be attended to and pinched back, for now is the time for laying the foundation of a nice specimen. As soon as danger of hard frost is past, I put them outside in a frame, having previously shifted them into 7-inch pots, draining with charcoal and broken bones. About the middle of May they may be plunged out. I generally shift a few again at the end of the month for specimens. The best situation for them is in a place where they will get all the forenoon sun, it will be found to answer better than the sun in the afternoon, as they will require so much more watering, which will waste the soil too much, and otherwise make them look sickly. Manure water will greatly assist them, and give them a fine dark-green colour. They sometimes lose their lower leaves, which is a sure indication of neglect in watering. I generally stop pinching them about the middle of August, as they begin to throw out short laterals near the top of each shoot, which is the receptacle of the flower buds. They may be shifted towards the end of the month, or previous to making their flower buds, which will be about the middle of Sept. I always stake them at the last shifting, as the wind is apt to split the shoots off. At this season they may be fully exposed to the sun all the day, they will set their flowers freely, and sufficient air after heavy rain will keep them from mildewing. I do not like to have the Chrysanthemum get checked in any way at this season, either for want of water or by a slight frost, for now depends the success in blooming time. No doubt the Chrysanthemum will withstand a good deal of frost without apparent injury, still I do not allow them to stop out too long for when taken to the house after a check in their growth, they will hardly recover again for the season. I have invariably found that those that are first taken in are the best. I recommend an abundance of air on all favourable occasions. I would here remark, that where dwarf plants are required, they may be propagated from layers: if large plants are wanted, they ought to be grown from cuttings. Some growers plant them out entirely in the spring. I cannot advocate the system myself, and do not recommend it, they get leggy and ill looking, more like a Jerusalem Artichoke than a Chrysanthemum proper, lose much of their foliage and soon become an eyesore in a well-kept house. The green fly will hardly trouble them if the plants are doing well. The foliage of the Chrysanthemum, when in good health, ought to be dark rich olive green. The underside of the leaf is covered with a light hoary coating, which immediately disappears if the plant gets unhealthy.

Rogers' Hybrid Grapes.

THE *American Agriculturist* says of these:—"An extensive series of seedlings sent out under numbers, but though called 'hybrids,' they have no characteristics of the European grape. The colours range from white to nearly black, the berries vary much in quality and time of ripening, are large, thick skinned, showy and some are foxy and burn the tongue. Being designated by numbers, there is already much confusion among them from the changing of numbers. The whole set is a complete muddle, and we do not think that the cause has been advanced by throwing such a crowd of varieties upon the public. If three or four of the best had been selected it would have been better. We have tried them from several different sources, and have not seen a first-class grape among them."

Experiments in Growing Apricots.

To the Editor of THE CANADA FARMER:

SIR,—The apricot is very scarce in this section of the country, many of the oldest inhabitants having seen neither the tree nor fruit. Now, whether it can be successfully grown in Canada, on its own natural stock or not, is a point on which I cannot speak; I know that it can be, when it is worked on the plum stock, as the following fact will testify. Three years ago last spring, a neighbour of mine procured some apricot scions and grafted them on the plum stock, and last year being the third from grafting, they bore some excellent fruit. Last spring I got a few scions, and grafted them also on the common plum stock, every one of which lived and threw out shoots, which at present look very healthy and vigorous. So far as I can ascertain, when it is raised in this way it appears to be as hardy as the plum in withstanding the severity of winter.

There are some things concerning the apricot on which I would like to get some information. 1. Can it be successfully grown in Canada on its own natural stock? 2. What are the most profitable varieties adapted to Canada? 3. Will it live long when it is raised on the plum stock? An answer to these questions through the columns of THE CANADA FARMER, would doubtless be read with interest by many of its readers who are interested in fruit culture.

J. M. McANSIE.

W. Missouri, Sept. 15, 1864.

REPLY.—1. There is no difficulty in growing the tree on its own stock, or on the peach or plum stock. The difficulty lies in getting the fruit. The blossom buds are very apt to be killed by the cold of winter, and when they survive the winter they open so early in the spring that they are sure to be nipped by any late frosts that may occur. If they should escape the severity of winter and the late frosts of spring and set their fruit, this is almost sure to be stung by the curculio and drop to the ground prematurely. There is no power in the different stocks to obviate these difficulties.

2. We do not believe that any variety can be profitably grown in Canada.

3. We know of some apricot trees growing in the County of Lincoln, that must be not less than fifteen years old, but do not know on what stock they are worked, nor do we believe the stock makes much difference, and we are sure they have not in that 15 years borne as much as 10 bushels of apricots.

Experience in Grafting.

To the Editor of THE CANADA FARMER:

SIR,—I wish to give my brother farmers my experience in grafting. Last spring I grafted some of my apple trees, and one of the grafts produced one apple on it this season as large as the Baldwin apple. I wish to hear from some of our experienced nurserymen if they can beat that.

I have been very successful in grafting plums on the native wild plum. Some of my grafts inserted in May last grew five feet this season. I prefer to graft into stocks from two to three years old. The native plum lives longer than the tame. I advise my brother farmers, if they have not good fruit, to graft their trees over; they can depend on apples from the grafts in two years.

I have been very successful in grafting the pear on the native thorn. The best time to cut the scions, as far as my experience teaches, is one or two days before they are used.

You will hear from me again, as I wish to inform the ladies what ornamental shrubs and trees they should select.

JOHN PRINGLE.

Fullarton, Oct. 4, 1864.

NOTE BY ED. C. F.—It is not unusual for scions to bear the same year that they are inserted, particularly if wood having bloom buds is used. Of course the size of the apple will depend upon the kind; if the scion be from a kind that bears fruit larger than the Baldwin, the apple on the scion will be larger than a Baldwin.

The native plum is truly the best stock on which to graft the improved kinds, and is extensively used by our best nurserymen for that purpose.

The wild thorn does not make a satisfactory stock for the pear. The union is not usually durable the pear being easily broken out by the wind when laden with fruit.

A Succession of Flowers.

In order to have a handsome succession of flowers through the season, *bulbous* flowers must be selected for the earliest bloomers; other *herbaceous perennials* for their successors; and some particular bulbous plants, *annuals*, and green-house plants, for late summer and autumnal flowering.

The earliest bulbous flowers are Snowdrop, single and double; *Bulbocodium vernum*; *Crocus*, several colours; and *Siberian Squill*; all of which appear in bloom as soon as the snow disappears from the ground. They are followed by several herbaceous perennials, among which are the *Claytonia*, the *Hepatica*, *Adonis*, *Wood Anemone*, *Phlox subulata*, or moss pink, *Pansies*, *Cowslip*, sweet scented *Violet*, creeping *Phlox*, *Dodecatheon*, *Erythronium*. About the same time with some of these, appear the *Hyacinths*, *Daffodils*, *Jonquils*, succeeded by the numerous and brilliant varieties of the *Tulip*. The last is followed by a rapid succession of herbaceous perennials, some of the finest of which are the *Veronicas*, the earlier *Phloxes*, the *Lupins*, the *Iris* of many sorts, *Columbines*, *Oriental and Caucasian Poppy*, and the magnificent varieties of the herbaceous *Peonia*.

Among the most interesting summer flowering bulbous plants, are the *Gladiolus communis*, or common purple sword lily, which is perfectly hardy; the *Gladiolus floribundus*, or profuse-flowering sword lily, remarkable for its beautiful flesh coloured flowers, but being tender, requires taking up before winter, and preserving from frost; and *Gladiolus gandivensis*, or Ghent sword lily, with flowers of a rich orange scarlet, and also tender like the last. The tiger flower, remarkable for its beautiful and showy petals, blooms about the same time, and requires similar treatment on account of its tender character. The *Japan lilies*, equally showy, are quite hardy.

Flowers in autumn are obtained largely from the successful culture of *annuals*, and from the hardier green-house plants, commonly known as bedding plants, among the most successful and desirable of which are the *Verbenas* and *Salvias*. The *Chrysanthemums*, including the dwarf or "pompones," flower almost into winter. They are hardy, and will succeed if planted in open ground, with a shelter, and full exposure to the sun during the latter part of autumn.—*Annual Register*.

A New Blackberry—The Kittatinny.

It is only within a few years that the blackberry has been included in the list of cultivated fruits. The *New Rochelle* and *Dorchester* are such marked improvements over the ordinary wild fruits, that we have been apt to consider that perfection has been reached with the blackberry. There are several varieties not yet before the public, which are in some respects superior to the established sorts, and it is hoped that cultivators will go on improving this delicious fruit until all the good qualities are found in one berry. One of the new varieties, which we have known for two years, is called the *Kittatinny*, from its having originated in the mountains of that name. Though it has been in private hands for many years, it has only recently been brought to the notice of horticulturists. Early in August, in company with several amateurs, we visited a garden in *Sussex Co., N. J.*, where this variety is in cultivation. In the habit and vigour of the plant it resembles the *New Rochelle*, and although the bushes had not been trained in a manner to produce the greatest fruitfulness, they were loaded with berries in all stages of development. The foliage is rather more coarsely serrate than in the *New Rochelle*. The berries are longer and more irregular than those of the *New Rochelle*; we measured several which were an inch and a half long, and three inches in circumference. The pips large, with small seeds, juicy, sweet, and with a true blackberry flavour. The fruit possesses the great advantage that it does not need to be over-ripe, in order to be eatable, but while still hard enough to send to market, it is sweet and fit for the table. The crop ripens up gradually, and though the first fruit had been picked two weeks before our visit (Aug. 3), there was a great abundance of green fruit coming forward. The canes are perfectly hardy in the mountains of *Sussex Co.*, but doubtless it would, like other varieties, be benefited by protection in winter. Should the *Kittatinny* do as well elsewhere, it will be a valuable addition to our limited list of varieties. To save answering queries, it may be well to state that the stock of this plant is in the hands of *Mr. E. Williams, of Montclair, N. J.*, who has placed it in the hands of several of our most prominent fruit growers, with a view of further testing it before offering it for sale to the public, and that none will be sold the present year.—*Am. Agriculturist*.

How to Have Flowers Double.

A young lady in Central New York wrote to the *Farmers' Club*, says the *Country Gent.*, saying that some of her balsam and aster plants produced flowers double, while on the other plants the flowers were all single, and asking if the Club could not tell her how to have all her flowers double.

Mr. Pardee said: "Mr. President, the remedy for this difficulty is simple and effectual. When a plant produces a flower with a single row of petals, it must be inexorably torn up by the roots, and trampled in the path. Balsams, pinks, asters, and all that class of plants, are apt to have seeds which will produce plants that will bear single flowers; and if the pollen from these is allowed to fructify the flowers of other plants, the whole bed will be hybridized, and the following year a crop of inferior flowers will be produced. On the other hand, if the plants that bear single flowers are firmly sacrificed, the seed will improve, and frequently very fine and curious flowers will be obtained."

—TWENTY-FIVE DOLLARS A BUSHEL.—Among the pears exhibited at the recent fair of the Horticultural Society of the American Institute was one bushel of *Duchesse d'Angouleme*, which was sold after the fair for \$25. There were 61 pears in the bushel; they, therefore, brought 41 cents apiece.

MILITARY GARDENS.—The vegetable gardens planted by the soldiers encamped at *Châlons* were more than usually productive this year. It is calculated that each regiment of infantry planted and gathered in their respective gardens, 40,000 cabbages on an average, together with potatoes, carrots, turnips, and onions in equal proportion. The experiment has been so successful at *Châlons* that it is said military vegetable gardens are to be planted in the principal garrison towns throughout France.

ANOTHER NEW BLACKBERRY.—The *Col. Wilder*, another new and very superior white variety, raised by *Mr. John B. Orange, of Albion, Illinois*, and so named by him in honour of the *Hon. Marshall P. Wilder, President of the American Pomological Society*, and which *Mr. Orange* regards as the best of all raised by him. The fruit is of a bright cream colour, of large size, oblong, almost pointed, of very superior flavour and quality, very productive, and according to *Mr. Orange*, it cannot be recommended too highly, and says that, with the same cultivation, will produce as large fruit as the "*New Rochelle*," and of very superior quality.—*Hovey's Magazine*.

A GREAT GARDENER'S FIRST ATTEMPT.—I will relate an anecdote of the great *Thomas Andrew Knight*, who, when a child, on seeing the gardener one day planting beans in the grounds, asked him why he buried those bits of wood, and was told that they would grow into bean plants, and bear beans. He watched the event, and, finding that it happened as the gardener had foretold, determined to plant his pocket-knife, in the expectation of it also growing, and bearing other knives, and when he saw that that did not take place, he set himself to consider the cause of the difference in the two cases, and thus was led to occupy his earliest thoughts with those attempts at tracing the vital phenomena of plants to their causes, and upon which he eventually constructed so brilliant a reputation; for a greater vegetable physiologist never lived than the late *Mr. Knight, of Downton Castle*.—*Hibberd's Gardeners Magazine*.

Veterinary Department.

Correcting Vicious Horses.

THE horse's fears and his consequent hesitation are best overcome by firmness, gentleness, and patience on the part of the rider, but there are some horses that seem to bolt from other reasons than fright or timidity; they decline to approach an object, apparently for no other reason than that they don't like it; these will fly about with little or no warning to the rider, and go tearing homeward. For these there is but one recipe—the gad—take firm hold of his mouth, and with all the energy of your will and the vigour of your arm, apply the whip, and keep repeating it—make his progress in the direction that you don't want to go, so uncomfortable to him, that he will be glad to go in any other; notwithstanding the whipping, the horse under so hard a pull will soon slacken his gait; now turn him quickly to the ori-

ginal direction, relax the firm hold on the bridle, cease to whip him, applying only the pressure of the legs; I'll guarantee he will go forward and won't be willful again that day.

From injudicious breaking, or from having been brutally treated when timid, some horses will become confirmed and inveterate bolters; these, notwithstanding the best handling, will jeopardize your life every time you ride. Should you have paid your money for one of these, your best practice of horsemanship will be to get rid of him.

Pampered, over-fed, and under-worked horses have much the same trick as bolters. Mounted on one of these, you go out for a ride; he starts off full of life, and you promise yourself a delightful afternoon. You have not gone more than half a mile, when he concludes that he has taken air enough, so he flies around and makes for the stable. Now, use much the same advice as I gave you above. If possible, lick him more vigorously—don't be afraid; many a good horse has been spoiled for want of a good thrashing when he deserved it. After you have lathered him well, turn him suddenly around, and, with the spur, put him to the gallop and keep him at it for ten or twelve miles. If you once allow such a horse to get the better of you, in your hands he will become perfectly worthless. At the first manifestation of willfulness of this kind, you will have no trouble if you show pluck; and unless you have as much, and a little more, than the animal you ride, you had better give up horsemanship.

Shying, whether arising from timidity or from a defective sight, is a habit that must be carefully dealt with. On the first indications, give the hand (you can never make a timid horse go forward by pulling him back), press him with the legs; don't use the spur. It is a common practice to pull his head toward the object which he fears; I would advise the contrary course. Turn him gently away from it, and move him forward by the pressure of the legs; he will then pass the object, diagonally as it were, with his head away from it.

Rearing is something of which inexperienced riders seem most afraid. When a horse rears from liveliness or playfulness, there is no occasion to be alarmed; remember your lessons in regard to the seat—let your loins be supple, so as to accommodate the body to the perpendicular; let the horse have a loose rein; as you value your life, don't pull at his mouth. (I venture to say that nine-tenths of the accidents on horse-back happen from unnecessary meddling with the horse's mouth.) As he comes to the ground, urge him forward by the pressure of the legs, or by a light touch of the spur, should he require it.

If the novice will keep a firm knee-hold and maintain his erect position, playfulness of this kind need not be immediately checked. By allowing his horse to rear and frisk a little, he will acquire a self-reliance and confidence on horseback, which, in the hour of trial, will be of more service to him than years spent in sitting jog trots and riding school cantering.

Violent perpendicular rearing, accompanied with temper on the part of the horse, must be met with firmness and severity on the part of the rider. The horse must be moved forward, to this end both whip and spur may be called to your aid, these should be used when he is coming to the ground, not when he is rising, the whip being applied to his hind quarters, never to his head or shoulders.

Sometimes it may be well, if you can, to twist him rapidly around three or four times; you may thus disconcert him; then, by a vigorous application of the spur, he will most likely go off at a gallop. In the worst cases, if you will keep a firm knee-hold, an erect position, and your presence of mind, no harm can come to you.

Plunging is another defence of the horse: this is invariably accompanied with bad temper. If an animal can consciously adapt a means to an end, your horse is, deliberately and thoughtfully, trying to get you off. There is no compromise here; either you or your horse must be the victor. Let it be you.

As he can't be in a worse temper, you need not be afraid of irritating him, and if you stop to caress or try to talk him down, he will surely spill you for your pains. So, lay on the whip, here, there, and all over. All his parts are equally criminal and deserve the chastisement. Do not cease until he behaves.

When your horse deserves punishment, do not mince matters with him; do not tickle him with the whip, but lend all your energies to the business; be in earnest; raise the whip arm well above the head and let the blow fall with impetus and aim; your horse will understand that you are not trifling, and the unpleasant business will soonest be over.

It is rarely that a horse kicks when you are on his back; should he do so, raise his head and neck and keep him moving in every direction. Should he kick violently, punish him over the fore shoulders. By warning these, he will be obliged to keep his hind legs on the ground.—*Cor. Wilkes' Spirit*.



Poultry Yard.

Poultry as Egg Producers.

We commend the following article on this subject, as being eminently judicious, and can confirm it in most particulars from a pretty thorough experience with nearly all the varieties of fowl named. The article is from *The Field*, one of the best, if not the very best, rural newspaper in England:—

“Many persons keep poultry almost exclusively for the sake of their eggs, and the question which naturally presents itself to their minds is, what variety of poultry will yield the greatest value in eggs in return for the corn they consume? Like many other questions, this does not admit of a straight-forward answer. Before it can be answered other questions must be asked. Are you particular as to the size of your eggs? Do you especially want a good supply in winter? Have you an unlimited range for your fowls, or are they in a place more or less confined? If the mere weight and number of eggs is taken into consideration, we believe that no fowls will give so good a return for their food as Gold and Silver Spangled. The pullets of this breed will, if well fed and with a free range, commence laying at about six months age, and will continue to lay 10 or 11 eggs a fortnight until next moulting season. After the next season they will lay admirably, but not quite so freely. We are certain that no fowls will give so many eggs for their food as these beautiful birds; and, for choice as layers, we would select the Silvers. There is no doubt but that five pullets of this breed may be depended on for supplying considerably over 1,000 eggs in twelve months. But they have their drawbacks—they are innocent of all knowledge of bounds, and fly like wild-fowl; as might be inferred from their laying propensities, do not sit, and their eggs are slightly below the average size of those of the larger fowls.

“If eggs of large size are required, and the fowls have to be kept in or near large towns, none answer better than Spanish. In the number of eggs they yield they fall short of the Spangle, but still they are very superior layers. They do not as a rule arrive at maturity quite so early, and their laying is rather interrupted by their prolonged moult in the autumn.

“Where a supply of new-laid eggs is required in the winter, irrespective of temperature, Cochins, Buff, White, or Partridge, or Brahmas, are the most to be depended on, as when they have attained an age of seven or eight months the pullets of these breeds lay quite irrespective of season, of course supposing they are well fed. They have the advantage of not requiring a very large space, and of being easily confined by low fences; but from their size they are necessarily large eaters, and, in spite of all the nonsense written about them on their first introduction, they do not lay two eggs in one day; and unlike Spanish and the Spangled Hamburgs, their laying propensities are very much interfered with by their tendency to become broody.

“If eggs and eggs alone are the object for which fowls are kept, we would say keep Hamburg or Spanish and every autumn buy a few small sized Cochins pullets; these will answer a two-fold purpose, they will lay in the most intense frost, and when broody will hatch out your pure-bred eggs. From their buff colour the eggs of the Cochins will be at once distinguished from those of the other fowls, and no chance of rearing half-bred mongrels will ensue. None of these varieties will furnish first-class table-poultry. The Spanish are too long in the leg, the Hamburgs, though plump, are too small; and the Cochins are too yellow in the skin, and too little developed in the breast.”

Poultry Experience and Questions.

To the Editor of THE CANADA FARMER.

Sir.—Having determined to keep fowls this year, I bought a cock and 11 hens, some of them very old, and with them I raised 58 chickens, Brahmas, Polands, Dominiques, and Spanish. Some of them are very

fine, the largest cock (hatched the 25th of April), weighing over 7½ lbs. More than half of the chickens are cocks. My fowls have layed badly since I have had them, the greatest number of eggs I have had per day being 1, and that only for a short time in the month of April, and often I get only 1 egg every other day. Some of my pullets 6 months old do not lay, while others (of the same age and of the same breed, viz., Brahmas,) do. I have tried corn, peas, oats, tailings, and frequently large quantities of meat, sometimes mixed with cayenne pepper and sometimes with sulphur. I always feed them until they leave, and beside this, they always have the run of the garden and plenty of clean water.

Will you, Mr. Editor, or some of your correspondents, be kind enough to answer the following questions, through THE CANADA FARMER: 1st. Can fowls be made too fat for laying, and is that the matter with mine; or do they not lay because of the number of cocks? 2nd. What is the best and cheapest food for fowls? 3rd. What is the best way of telling the sex of eggs? 4th. Are Brahma fowls pure when they have no feathers down their legs? 5th. Are the Black Polands with white top-knots pure when their top-knot is part black? 6th. Are Dorkings ever yellow and without a fifth toe? J. H. L., (a boy.)
Elgin, Oct. 31, 1861.

NOTE BY ED. C. F.—We are glad to find so intelligent and enquiring a mind in our young correspondent. Most of his queries admit of ready answer. The numbers prefixed to our replies correspond with those of the above questions.

1. Fowls can be made too fat to lay, and this may probably explain your lack of eggs. There is, however, considerable difference in the egg-laying propensity among fowls as it respects earliness. Some begin at a much earlier age than others. It is well to keep the earliest layers as breeders. 2. This is a much debated question, and no reply can be given that applies in all cases and all localities. The articles of food you mention are all good. Lime should be given in some shape to form the material of egg-shells. It is well to vary the food of fowls somewhat. 3. Several methods are proposed; we cannot say which is the best, or if any one of them is a certain test. One mode is given in THE CANADA FARMER No. 7, p. 109. 4. They may be pure without being feather-legged, but they are not considered so handsome by breeders generally. 5. It is thought a mark of beauty to have the top-knot as purely white as possible, but there is often a mixture in pure birds. 6. The Dorking cock is often yellow or straw-coloured about the neck hackles. Pure-bred Dorkings sometimes lack the fifth toe, and some breeders think it a defect that should be bred out.

Another Good Egg Average.

To the Editor of THE CANADA FARMER.

Sir.—Noticing in your last issue the statement of Mr. Veitch's success in poultry keeping, I would like to give it a parallel by recording the results of our own. We have nearly the same number of Black Spanish and Golden Pheasant, and according to our experience, they have done as well, if not better, than any other breed that I have seen recorded. At the same time they are very easily kept, and are not expensive. The six best months of 1863 and 1864, show as follows:—

	1863.	1864.
March 11 hens	54 eggs	10 hens, 150 eggs
April 13 "	198 "	10 "
May 11 "	222 "	9 "
June 9 "	78 "	9 "
July 9 "	84 "	8 "
August 7 "	60 "	8 "

Being an increase this year of 318 with a less number of hens. Last year's average was 121, this year's 174. We attribute the increase entirely to the difference of food. Last year we gave them grain, such as corn and barley, which made them too fat to lay well. This year we gave them bran, shorts, and screenings. We have no difficulty in keeping our hens from sitting, as we have never yet known any of the English Pheasant (golden) to want to sit, and the Black Spanish but very seldom.

Collingwood, Nov. 7, 1864.

A SUBSCRIBER.



The Household.

Corns.

Many persons live in daily martyrdom from these painful excrescences. How to get rid of them is a question they often ask very anxiously. Often the remedy tried is as bad, if not worse, than the disease itself. A very simple and effectual plan, as we know by personal experience, is to put on an adhesive wool plaster, having a hole in the centre, and apply a little sweet oil to the corn night and morning. By persevering in this course for a short time, the corn will scale off, until not a vestige of it is left. Most druggists keep the plasters we refer to; but a good substitute for them may be made with any thick cloth, cut about the size and shape of a copper cent, with a hole in the centre to admit the head of the corn, and fastened to the place by some adhesive substance. The plaster keeps the shoe from pressing on the tender spot, and the oil softens and loosens the hard substance of the corn. The following paragraph on this subject appeared recently in the *Country Gentleman*, and describes a process of eradication similar in principle to the above, but at once quicker and more painful:—

“The shape of a corn is exactly similar to that of a carpenter's nail, having a crown or head and a stem pointing downward, which, piercing through the true underskin, irritates the nervous fibres in its vicinity. To cut off the head of the corn is only temporary relief—a cure can only be accomplished by cautiously digging out the stem, which may be thus done by a steady hand: steep it in hot water, and rub it with a coarse towel, or the finger-nail will not remove it; place a small quantity of oil on the corn, and let it soak well in. Then with a penknife, or what is still better, a sharp bodkin, work it out of its bed as you would a thorn. Not a drop of blood should be shed during the operation, and its success may be tested by finding pressure unaccompanied by pain. A small piece of diachylon plaster, with a cessation of pressure, will complete the cure. Should inflammation have been excited—which may be known by the redness prevailing around it—rest and emollient applications, such as linseed poultice, or a fig, will be found beneficial.”

Receipts.

“W. H. Pugno,” of Little Britain, sends us the following receipts:—

DEAD SHOT FOR BED BUGS.—Persons troubled by this race of nightly rest disturbers, will be glad to hear that by putting into water as much Corrosive Sublimate as will dissolve, and doing the joints of the bedsteads and cracks of ceilings a few times, the bugs will entirely disappear.

CHARCOAL FOR HOGS.—Hogs, when put to fatten, should be supplied with plenty of fresh earth. Their nature is to wallow. Pounded charcoal, if fed twice or three times a week, will be eaten freely. It corrects the stomach, and combines with the digestible properties of the food, and is deposited with it. Thus it adds to the weight and greatly to the solidity and flavour of the meat.

HOW TO CATCH HAWKS AND OWLS.—Erect in the middle of your field, a long pole. Set a steel trap upon the top, and the unwary hawk and owl will light directly in the trap. By this means hundreds may be taken in one season.

SOFT GINGER BREAD.—Two eggs, 1 cup molasses; 1 cup sour cream; 2 tablespoons ginger; 1 teaspoon soda. Stir quite thin.

COTTAGE PLUMING.—One egg; 1 tablespoon sugar; 1 tablespoon sour cream; 1 cup sweet milk; 2 teaspoons cream of tartar; 1 teaspoon of soda; 1 pint of flour. Bake half an hour. Serve with any sauce. Sweetened cream is good.

Miscellaneous.

Voice in Fish.

On this curious subject the Academy of Sciences has received a paper from M. Armand Moreau, in which he shows that certain fish emit sounds by an action of the nerves, just as voice is produced in the larynx of the higher orders of animals.

SOLVENT FOR OLD PUTTY OR PAINT.—Soft soap mixed with a solution of potash or caustic soda, or pearlash and slaked lime, mixed with sufficient water to form a paste, is an excellent solvent for old putty and paint.

AUTOGRAPHIC PHOTOGRAPHS.—An English photographer has lately introduced a novelty in the mode of taking carte-de-visite photographs with the signatures of the sitters appended.

ALMON ANGLING ON THE SHANNON.—Mr. Murphy, of Shannon-bridge, caught on Monday, Sept. 19, the largest fish that has been taken for a number of years—it weighed 42 lb. 2 oz.

MONUMENT TO A PIG.—“Up to the present time,” say the Europe of Frankfurt “no monument that we are aware of had ever been erected to the memory of a pig.”

A PRODUCTIVE FARM.—A. C. Fulton, residing near Davenport, Iowa, writes to the Prairie Farmer that his gross receipts from sixty-two acres of land last year amounted to \$10,111.

Poetry.

Our Native Land.

BY HELEN M. JOHNSON.

WHAT land more beautiful than ours? What other land more blest? The South with all its wealth of flowers? The prairies of the West?

How many loving memories through Round Britain's stormy coast? Renowned in story and in song, Her glory is our boast!

—Selections from Canadian Poets.

Sunset Scene.

BY FAMELIA S. YINING.

THE glorious sun behind the western hills Slowly in gorgeous majesty retires, Flooding the founts and forests, fields and rills,

Markets.

Toronto Markets.

“CANADA FARMER” Office, Nov. 15, 1864.

Flour—Little offering; superfine is held at \$3 80 to \$4 per bbl for No. 1, extra, \$4 15 to \$4 25, superior extra, \$4 50 to \$4 62.5, fancy, none offering.

Cakes \$3 50 to \$4. 60 each. Sheep, by the car load, \$3 to \$3 60. Lambs, by the car load, \$2 25, very good bring \$2 25.

Hamilton Markets, Nov. 12.—Flour.—Superfine No. 2, \$3 20 to \$3 30; superfine No. 1, \$4 to \$4 20; fancy, \$4 13 to \$4 30; extra superfine, \$4 20 to \$4 40; superior extra, wholesale, \$4 60 to \$4 75; do retail, per 100 lbs, \$2 25 to \$2 62.5.

London Markets, Nov. 14.—GRAIN.—Fall Wheat, 82c to 85c; Spring Wheat, 78c to 81c. Barley quiet at 60c to 70c. Peas 58c to 61c. Oats wanted, at 34c to 35c.—Free Press.

Chicago Markets, Nov. 14.—Flour dull and declined 2c. Wheat dull at an advance of 1c, sales at \$1 85 to \$1 80 for No. 1, and \$1 80 to \$1 81 1/2 for No. 2. Corn firm; sales at \$1 33 for No. 2. Oats firm and advanced 1/2c; sales at 63 1/2c to 64 1/2c.

Chicago Lumber Market, Nov. 11.—Lumber.—First clear boards, \$1 M, \$50 to \$55; second clear boards, \$1 M, \$47 to \$51; third clear boards, \$1 M, \$44 to \$48.

Chicago Cattle Market, Nov. 11.—Beef Cattle at \$3 to \$3 12 1/2, chiefly at \$3 75 to \$4 50 per 100 lbs. Hogs, \$1 75 to \$1 11, principally at \$10 10 to \$10 50 per 100 lbs. Sheep, \$6 70 per 100 lbs.

Detroit Wool Market, Nov. 11.—The wool market is much firmer, and the indications all favour a early and decided advance. We do not, however, advance our quotations over 8c., as no dealers are now willing to pay more than that for even the best quality.

Detroit Cattle Markets.—No. 11.—Beef, first quality, \$6 to \$6 60 per cwt.; ordinary, \$5 25 to \$5 75 per cwt.; common, \$4 50 to \$5 per cwt., inferior, \$2 25 to \$2 75 per cwt.—Tribune.

Buffalo Markets, Nov. 12.—Flour—XX Canada \$10 75 to \$11 25. Wheat—Amber Michigan, \$2 25. No. 1 Milwaukee Club, \$2 15. Corn—White Ohio, \$1 65. Oats—Western, 85c. Rye \$1 45. Barley \$1 80. Peas \$1 45.

Oswego Markets, Nov. 12.—Flour steady at \$10 60 to \$10 75 for No. 1 spring; \$11 for Red Winter; \$11 50 to \$12 for white; and \$12 25 to \$12 75 for double extra. Wheat market quiet; white Canada at \$2 60. Corn dull, No. 2 Illinois at \$1 60. Barley—Canada at \$1 80. Rye dull.

Boston Markets, Nov. 12.—Flour—The market is firm, with a fair demand; Western superfine at \$9 50 to \$10; common extra, \$10 50 to \$11, medium do \$11 to \$11 75, good and choice do, \$12 to \$14 25 per bbl. GRAIN—Corn is in moderate demand; Western mixed at \$1 90 per bushel. Oats are in steady demand, Northern and Canada at 92c to 95c per bushel. Rye is scarce at \$1 75 to \$1 80c per bushel. Provisions—Pork is steady, with a fair demand; sales of prime at \$40; mess \$43 to \$43 50; clear \$46 to \$47 per bbl, cash. Beef is firm, but the demand is limited; sales of new Western mess and extra mess at \$21 to \$25; new Eastern is selling at \$21 to \$24 per bbl, cash. Lard is steady, sales in bbls at 78c to 82 1/2c; kegs, 25c per lb, cash. Hams are selling at 19c to 20c per lb, cash.

New York Markets, Nov. 15.—Flour loc lower, receipts 14,155 bushels. Wheat 2c to 3c lower, receipts 23,344 bushels. Corn dull and drooping—Receipts 10,350 bushels. Rye quiet. Pork dull and drooping. Lard quiet. Apples steady; Pears \$12 to \$12 25, Pears \$13 50. Oats quiet, at 93c to \$1 for western. Barley quiet. Peas nominal. Freight quiet.

Advertisements.

GRAPE VINES!

CHOICE VARIETIES, by Mail, at 25 cents each. Hartford Prolific and Concord are first-class Grapes, and ripen with us in open air, in August and early in September, and sell readily at 20 to 25 cents per lb, wholesale. They are very lardy vines, and require no shelter, and with good care will bear 20 lbs. the second year after planting. Persons enclosing \$1 in registered letter to my address, before the Vines are all ordered, will receive by mail, post paid, in the Spring of 1865, two vines of each variety, and larger quantities, if required. Write plain your name and Post Office. Direct.

W. W. FITCHER, Grape Grower and Wine Maker, Grimsby, C. W. Grape Vine (5 Gallons and over), at \$2 per Gallon. 224f

FARM FOR SALE IN THE TOWNSHIP OF PICKERING. 50 ACRES.

BEING the south-east quarter of Lot No. 24, in the Second Concession, 45 ACRES CLEARED, with good buildings. Terms - \$22 and under cash over that amount 12 months credit by furnishing approved Joint Notes. Sale to commence at TWELVE O'CLOCK, Noon. ROBERT COLTTS, Danbarion P. O. Danbarion, Nov. 15, 1864. 22 21*

IMPORTANT SALE OF IMPORTED GALLOWAY CATTLE.

CONSISTING OF BULLS, COWS AND HEIFERS; also CATTLE AND HORSES, at the residence of James Graham, Esq., Lot No. 15, 7th Concession, Township of Vaughan, County of York, On WEDNESDAY, the 7th of Dec., 1864. Terms - \$22 and under cash over that amount 12 months credit by furnishing approved Joint Notes. Sale to commence at TWELVE O'CLOCK, Noon. ROBERT CONWAY, Auctioneer. JAMES GRAHAM, Esq., Proprietor Vaughan, 15th Nov., 1864. 22 11*

THE CHEAP MICROSCOPE.

A MICROSCOPE, MAGNIFYING NINE THOUSAND TIMES, showing thousands of living insects in a single drop of water. It is of great use to the Farmer in examining the various diseases in wheat and other crops. Price One Dollar and a Half, or carriage free to any Post Office for Twenty five Cents extra. To be had at the Sign of the Spectacle, 20 King Street West, Toronto. CHAS. POTTER, Agent. Travelling Agents wanted, to whom a liberal discount will be given. 22

PERUVIAN GOVERNMENT GUANO.

THE undersigned have on hand a few tons of this valuable Manure, which they are anxious to introduce among Canadian Farmers and Horticulturists. They offer it for sale in small quantities, in order to give the Manure as wide a circulation as possible. Should sufficient encouragement be given, they have made arrangements to receive importations direct from the Chincha Islands, by which they will be able to offer the Guano at a price much below that of any other manure. The following is one illustration of the comparative result of the application of different manures at a cost of 15s. for each, arrived at by experiments made upon several quarter-acre plots of land, by Mr. E. T. Beame, of Storer:-

Table with 5 columns: Manure Applied, Quantity, Weight of hay cut per acre, Cost of Manure, Net Gain. Rows include None, Sup. of Lime, Nit. of Soda, and Guano.

Further statistics, and all other information, may be obtained from DUNCAN, CLARK & SCOTT, Ontario Hall, Church Street, Toronto. 16

CANT'S PATENT TURNIP OR ROOT CUTTER.

First Prize Provincial Exhibition, 1864. CUTS DIFFERENT SIZES FOR SHEEP OR CATTLE. PRICE \$15 Order by mail promptly filled. J. B. RYAN, 114 Yonge Street Toronto. Nov. 1, 1864. 20 11

GREAT AUCTION SALE AT WALDBERG, (near Haverstraw, N. Y.)

SHORT-HORN. DEVON AND Ayrshire CATTLE, Thorough-bred & Trotting Horses. COLTS by Hero, Commodore, Patchen, Jr., Major Low, &c. Also the entire flock of SOUTH DOWNS SHEEP, including the prize Canterbury Ewes and Lambs No. 100, bred by late Jonas Webb, the property of Hon. A. B. Conger. SALE NOVEMBER 17th & 18th. Those wishing to attend the Sale will find a ferry crossing at Sing Sing, N. Y. with the trains on Hudson River R. R. For catalogues or further particulars, address T. HOWARD PATTERSON, Haverstraw, N. Y., Or JOHN R. PAGE, Auctioneer, Seneca Falls, N. Y. 20 21

1865. THE CANADA FARMER, A SEMI-MONTHLY JOURNAL OF AGRICULTURE, HORTICULTURE, AND RURAL AFFAIRS.

THE BEST AND CHEAPEST PAPER FOR THE CANADIAN FARMER.

THE CANADA FARMER has now been established for eight months, and has achieved during that period an unparalleled success. Its circulation has risen to 20,000, a number which would be considered very large in the neighbouring States for a journal in the first year of its publication, but in Canada is altogether unprecedented. The favourable reception which THE FARMER has met with is owing to the fact, that it is supplied an urgent necessity long felt by Canadian Agriculturists. They needed a journal specifically devoted to the circulation of information in which they are specially interested as farmers and horticulturists, and they have found in THE CANADA FARMER what they required. THE FARMER has received the most flattering commendations from the chief farmers of the Province, from the press of Canada, and also from those who are perhaps the best judges—the agricultural journals of the United States. During the last five months THE CANADA FARMER has supplied a larger number of wood-cuts—a most important agency in the communication of ideas—than any other agricultural journal in the world, and has furnished more reading matter than any other journal having the same subscription price. Not only is it cheaper than any other agricultural journal, English or American—every sentence which it contains is specially devoted to subjects directly interesting to the farmers of the Province, and it is therefore by far the best bargain within the reach of Canadians. THE FARMER being now thoroughly established, the Publisher is able to announce that great improvements will be made upon the coming year. Every month adds to the number of its contributors, and to the experience of the editor and his assistants. The illustrations during the coming year will be more numerous and better executed than during that which is now nearly past, and no effort will be spared to supply the earliest and fullest information on every subject of moment to the Provincial Agriculturist. THE CANADA FARMER is published on the 1st and 15th of every month, on a sheet containing sixteen quarto pages, and is sent, FREE OF POSTAGE, at the following prices:-

- For a Single Copy One Dollar per Annum. AND TO CLUBS AT THE FOLLOWING RATES: Ten Copies for Nine Dollars. Twenty Copies for Sixteen Dollars. Forty Copies for Thirty Dollars. One Hundred Copies for Seventy Dollars.

To Agricultural Societies ordering more than 125 copies, the FARMER will be sent at SIXTY CENTS!

In order to induce early subscriptions for the year 1865, THE CANADA FARMER will be sent after the 1st October, to all subscribers for that year, from the date of their remittance.

New Subscribers who send their money at once, will thus receive the paper for fifteen months at the price of one year.

Subscriptions for THE CANADA FARMER are received for less than one year. All commence with the 1st of January, and end with the 15th December, 1865, and the money must be paid in advance.

All the Subscribers to a Club must receive their papers at one Post office, but each paper will be addressed and mailed separately.

Agricultural Societies are supplied with THE FARMER at Club rates, and papers ordered by them are mailed to any Post-office within their respective territorial limits.

Back numbers may always be had, THE FARMER being printed from stereotype plates.

As an advertising medium it is sufficient to remark, that all who have for sale, or who wish to purchase, Live Stock, Seed, Grain, Agricultural Implements, Land, &c. &c., can, through THE CANADA FARMER, make their desires known directly to the whole farming population of Canada.

Now is the time to Subscribe. Orders to be sent to GEORGE BROWN, Publisher and Proprietor, 26 and 28 King Street East, Toronto, C. W. Toronto, October 1, 1864.

FIRE INSURANCE ON FARM PROPERTY AND ISOLATED DWELLINGS.

The London and Lancashire Fire Insurance Company. CAPITAL—ONE MILLION STERLING.

THIS Company insures against Fire, Farm Property and Detached Dwellings for a period of years, on terms unusually favourable to the insured. Farmers and others will find our rates equitable, our settlements for loss or damage prompt and liberal, and our system more adapted to their wants than that of Mutual Companies. They have the security of a large deposit (over \$500,000) in the hands of the Finance Minister, besides the income and large capital of the Company. No assessments, and no uncertainty as to when or how losses will be paid.

CANADA HEAD OFFICE, MONTREAL—with Agencies throughout the Province. DIRECTORS—Chairman, William Workman, Esq., President of the City Bank; John Redpath, Esq., Vice-President Bank of Montreal; B. H. LeMoine, Esq., Cashier La Banque du Peuple, Alexander M. Delisle, Esq. GENERAL AGENTS—SIMPSON & BETHUNE. County Agents wanted in both Upper and Lower Canada. THOMAS CLARKSON, Agent for Toronto. 20 61

HORSE HAY FORKS. ON EXHIBITION AND FOR SALE,

AT THE AGRICULTURAL HALL, Corner of Yonge and Queen Streets. Toronto, Aug. 1, 1864. 14 1f

CIDER MILL SCREW!

PRICE, - - - - \$12.00. WE are making the CHEAPEST and BEST CIDER MILL SCREW IN THE WORLD. Whole length, 4 feet. Length of thread, 3 1/2 feet. Diameter of Screw, 4 inches. Weight, including Nut, 125 lbs. Address S. F. P. & F. E. CO. Also, PUMPS of all kinds for Farmers' use. J. A. RUMSEY, Treasurer, Seneca Falls, N. Y. 18 21

LANDS FOR SALE.

TWENTY THOUSAND ACRES OF LAND, both wild and improved, and at all prices, for sale in various townships throughout Upper Canada, cheap and on easy terms. For lists and particulars, apply to the proprietor, T. D. LEDYARD, Barrister, &c., South-west cor. of King and Yonge-sts., Toronto. Toronto, March 15, 1864. 5 1f

Agents Wanted.

CANVASSING AGENTS for THE GLOBE and CANADA FARMER are still required for the following Counties of Upper Canada, viz.: East Brant, Carleton, Essex, Glengarry, Huron, Lambton, Lanark, Leeds, South Wellington, Prescott, Renfrew, Russell. Immediate applications are requested. Address to the Publisher, GLOBE Office, Toronto. Toronto, October 26, 1864. 20

THE CANADA FARMER is printed and published on the 1st and 15th of each month, by GEORGE BROWN, Proprietor, at his Office, No. 26 and 28 King Street East, Toronto, U. C. where all communications for the paper must be addressed.

Subscription Price \$1 per annum, (POSTAGE FREE), payable in advance. Subscribers may either begin with No. 1, receiving the back Nos., or with No. 25, being the first No. for 1865. No subscriptions received for less than a year, and all commence with the first number for the current year.

CLUBS will be furnished at the following rates:- TEN COPIES FOR NINE DOLLARS. TWENTY COPIES FOR SIXTEEN DOLLARS. FORTY COPIES FOR THIRTY DOLLARS. ONE HUNDRED COPIES FOR SEVENTY DOLLARS.

To Agricultural Societies ordering more than 125 copies, the FARMER will be sent at SIXTY CENTS.

THE CANADA FARMER presents a first class medium for Agricultural advertisements. Terms of advertising, 20 cents per line of space occupied—one inch space being equal to 12 lines. No advertisement charged less than \$2, being ten lines of space.

Communications on Agricultural subjects are invited, addressed to "The Editor of the Canada Farmer," and all orders for the paper are to be sent to GEORGE BROWN, Proprietor and Publisher.