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
- ☐ Covers damaged/ Couverture endommagée
- ☐ Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/ Le titre de couverture manque
- ☐ Coloured maps/ Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- ☐ Bound with other material/ Relié avec d'autres documents
- ☐ 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
- ☐ 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.
- ☐ Coloured pages/ Pages de couleur
- ☐ Pages damaged/ Pages endommagées
- ☐ Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- ☐ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached/ Pages détachées
- ☐ Showthrough/ Transparence
- ☐ Quality of print varies/ Qualité inégale de l'impression
- ☐ Includes supplementary material/ Comprend du matériel supplémentaire
- ☐ Only edition available/ Seule édition disponible
- ☐ Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image/ Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.

- ☑ Additional comments:/ Commentaires supplémentaires: Continuous pagination.

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

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
									✓		

THE BRITISH AMERICAN

CULTIVATOR.

"AGRICULTURE NOT ONLY GIVES RICHES TO A NATION, BUT THE ONLY RICHES SHE CAN CALL HER OWN."—*Dr. Johnson.*

VOL. III. TORONTO, JUNE, 1844. No. 6.

THE CULTIVATOR.

"Agriculture is the great art which every government ought to protect, every proprietor of lands to practise, and every inquirer into nature improve."—*Dr. Johnson.*

TORONTO, JUNE, 1844.

MONTHLY CALENDAR.

Your summer fallows now demand your earnest attention. If the land intended to be fallowed be foul, with wild grasses and noxious weeds, the first ploughing should be carried very light; a four-inch furrow would facilitate the decomposition of the roots of the grasses, to a much greater degree than if it were ploughed deeper. It is bad economy to cross-plough before the inverted grass is thoroughly decayed. As soon as the land is in a fit state for this work, which generally happens by the middle of July, it should be executed with a strong pair of horses, a strong plough, and a still stronger and more willing heart, on the part of the hardy ploughman. We mean, that, on all lands where the wheat plants are apt to receive injury from winter and spring frosts, the subsoil should be brought up to the surface, by deep ploughing, and thus a consistency would be given to the black vegetable soil, which would, ultimately, constitute it the very best quality of soil for wheat. Deep ploughing, especially for winter wheat, should be the order of the day with those farmers who have been unsuccessful during the past few years in growing this crop to perfect maturity.

On the subject of leading manure for your fallows, reason the case, in the same manner that a skilful physician would, in administering medicine to the human species. If the land be already abundant in vegetable substance, the manure must be thoroughly rotted before applied to the soil: if, on the contrary, it be deficient in vegetable matter, long barn-yard manure will lighten such soils, and, in most cases, will be of great benefit to the intended crop. In general, barn-yard manure should be applied to the soil for the crop which precedes the wheat crop; but, if applied for the latter, it should be thoroughly rotted in the manure-heap, before being spread upon the land.

The employment of liquid manure, though but little known on this continent, is very extensive on the continent of Europe. It is, from long experience, an admitted fact among the Belgian farmers, that there are no manures so powerful in their operation as those which are liquid. Although labour is high, in proportion to the value of produce, yet the matter of making an experiment with liquid manure is worthy of attention. Tanks may be very cheaply constructed, for securing the drainings of the barn-yards and stables, and a simple portable pump could be used, for conveying it into the water carts: the latter should be constructed and used something after the manner which is practised in watering the streets of our cities.

This a good time to clean and drain waste lands: every acre of intervale land thus brought into cultivation is worth two acres of up-land.

Now is the time to make an experiment with marl. About six good waggon loads per acre will prove a liberal dressing. The intimate mixing with the soil is best produced by its being spread in small heaps over the field, and left lying thus until it commences to fall to pieces; then it should be broken still more with dung-forks, and strewed evenly about with a shovel. It should then be left quiet for some time, after which it should be harrowed; then the field should be rolled with a light roller, and again harrowed; which process should be alternately continued, in fine weather, until the marl has been converted into a fine powder; and, finally, it should be ploughed under in dry weather.

OUR PROSPECTS.

As this is the Sixth Number of the Third Volume of the *Cultivator*, and as we have scarcely adverted to the character of the support that has been dealt out to us since the current volume has been in progress, we conceive it to be our duty and privilege to lay before our friends and supporters a correct statement of our prospects. Inasmuch as ultimate success in the accomplishment of even more than we anticipated, when we commenced the work, is beyond a doubt, we have reason to be thankful; but when we take a survey of the benefits that will most assuredly accrue to the great mass of our fellow-countrymen, by and through the influence of the gigantic movement that is now in progress, and which has been commenced mainly through the agency of our humble sheet, we are now disposed to make some reflections at the manner in which those efforts have been responded to, by a mention of the very parties who will, unquestionably, be benefitted, to a great degree, whether they patronize our exertions or not. From the commencement of the enterprise, up to this period, not even a semblance of making private gain has been evinced on our part; as an evidence of which our terms have been gradually reduced to Agents and Societies, until we can now boast of publishing as cheap a Journal as any other of a similar description published on this continent. Owing to the great reduction of the price to Agents, the average value of each copy disposed of does not exceed the small sum of two shillings and sixpence per annum. At the period when our chance of success was gloomy in the extreme, a number of very influential friends advised us to raise the price to ten shillings per annum: we felt confident that if we followed the advice that failure would be certain; and, in less that one month from the period alluded to, we announced to our patrons, that, upon certain conditions, this Journal would be afforded for the lowest minimum price; in fact, that the price would be merely nominal, when compared with the merits of the work. Those conditions were, that each farmer who desired to read a Canadian Agricultural Journal should, without delay, enroll his name on the list of some respectable Agricultural Society, and use his influence among his circle of friends, to assist in establishing a Township, a District, and a National Agricultural Society, we are happy to say that this advice has been followed in upwards of *four thousand* instances, and that all are becoming satisfied that they are engaged in a most patriotic enterprise, and one that will, ere long, redound to the benefit of their common country, and to the credit of all who facilitate its progress.

We feel that we owe a great obligation to our friends, who have so frankly come forward, and alleviated our toils to a considerable degree; and we can assure them that every possible endeavour shall be put forth on our part, to recompense such farmers, by storing the columns of the *Cultivator* with valuable information.

Although the change has secured an increased circulation, still it must not be supposed that we are making gain by the enterprise; for, if the receipts meet our actual expenses during the current year, it will be even more than we anticipate. At the price at which the *Cultivator* is now afforded, it would require a circulation of 10,000 copies to leave a net supporting profit to the publisher. This circulation may be had, if those who now read, and approve of its contents, would exert their influence with their neighbours, and endeavour, as we have done, to advance the science, and improve the practice of Agriculture in this highly-favoured country. That such exertions will be put forth by the intelligent and discriminating public we have good grounds for entertaining the belief, and that all parties will unite in promoting the welfare of the Agricultural interest, there can be no manner of doubt.

In conclusion, we would say to all, let Agricultural improvement, above all other questions, be pre-eminently the order of the day.

A NEW SERIES.

A LIBERAL OFFER.

The proprietor of the *Cultivator* begs to announce to his patrons, that it his intention to commence a *New Series*, at the commencement of the next Volume. The sheet will be considerably improved and enlarged, each number containing thirty-two pages, making a yearly volume of 384 pages. The type will be new, and of an uniform size, and the work, on the whole, will be published in a style that would be highly creditable to much older countries.

As the number of copies on hand of the Second Volume are considerable, and as there is a certainty that the whole of the back numbers of the current Volume will be disposed of to subscribers before the close of the present year, we feel much pleasure in announcing to our friends and Agents, that five complete copies of the Second Volume may be had for one dollar; or, a single copy for 1s. 3d. Those subscribers who have not received the Second Volume would act wisely by embracing this bargain.

As an extra inducement for the organization of Township Branch Societies, on the plan adopted in the Home and Midland Districts, the Proprietor takes this opportunity to state, that he would forward one hundred full sets of the Second Volume of the *Cultivator* to the Secretary or President of any District Society that would engage in the enterprise of organizing Branch Societies in the Townships, in conformity with the plan before alluded to.

AUXILIARY BRANCH AGRICULTURAL SOCIETIES.

As an encouragement to the organization of Township Branch Societies, we would beg to furnish the following list of amounts that the Branch Societies are to receive from the funds of the Home District Agricultural Societies:—

Whitby, ...	£40	0
Fourth Riding, ...	15	0
Vaughan, ...	15	0
Markham, ...	12	10
York, ...	11	5
Albion, ...	11	5
Scarbro, ...	11	5
Toronto Township,	10	10

The amount that each receives is in proportion to the gross amount that each Society has raised by subscriptions during the present year, up to the period of their last quarterly meeting. It will be seen that the Society for the Township of Whitby have far eclipsed the other Societies in this laudable race for the encouragement of Agricultural improvement; and to the officers of that Society belong a proportionate degree of credit. Let us, for a moment, inquire into the manner in which so great a result has been produced. The first move that was made was probably the one to which the great success must be attributed. The Township was laid off into eighteen sections, and the most influential men in each were elected to the office of Directors. The duty of the Directors was to call upon every individual at all likely to support such an institution, in their respective sections, and explain the advantages that would result, were they to form, and become members of an Agricultural Society: and those advantages appeared so apparent, that a large proportion of the influential and wealthy settlers in the Township at once enrolled their names, paid their subscriptions, used their influence with their neighbours, and immediately participated in the first-fruits of their investment, by attending a most spirited ploughing match and show of stock, held in the Township, and were favoured with the reading of a Journal devoted to the promotion of Agriculture, and published in their own country.

We were lately in company with one of the principal officers of the Whitby Society, who informed us that the Managing Committee were of opinion that a very considerable number of members would be added to their Society before the close of the present year.

It is an old maxim, and we believe a true one, that similar causes produce similar effects; and as we believe that the great movement that is now in progress will be a means of ultimately elevating this country to that high and exalted station that it so richly merits, we would urge upon our friends in the other Townships of the District to follow the noble example set them in Whitby; and whilst we would advise this course to those who have been less successful than

the Township in question, and also to those in the District who have not yet participated in the movement, we would urge upon our friends in other Districts of the Province to follow the example as soon as practicable—that excellent and praise-worthy example set them by their fellow-farmers of the Home District.

The benefits to be derived from participating in this patriotic movement could not be even faintly described, were we to devote pages to the subject; suffice it to say, that, very shortly, a flood of information will burst in upon the Canadian husbandman, through the agency of Agricultural Societies, based upon the soundest principles, which will of itself recompence those who have been foremost in the ranks in aiding in the accomplishment of this truly great work.

HOME DISTRICT PLOUGHING MATCH.

The District Ploughing Match took place on the 8th ultimo, on the Union Race Course, a short distance east of the city of Toronto, and was, without exception, the most splendid performance of the kind that we ever witnessed. Eighteen ploughs entered the field, and the work apportioned to each was executed in a most masterly manner. It was remarked, on the ground, by several good ploughmen from Britain, that they had attended a number of similar feats of ploughing in the Old Country, but had seen nothing that excelled the work performed on this occasion.

The successful competitors were :—

First Class.

1st best, Walter Delzall, Vaughan.
2nd best, James Sanderson, Scarbro.

Second Class.

1st best, Wm. Crone, jun., Scarbro.
2nd best, James Johnston, York.
3rd best, Chas. Shepherd, York.

Third Class.

1st best, Alexander Gibb, jun., York.
2nd best, David Montgomery, York.

Judges.

John Torrance, George Weir, and George Harrison.

The Judges retired from the ground before the lots were balloted; and, on their return to the field, for inspection, the greatest possible interest was evinced by the anxious spectators, to ascertain their decision. The Judges themselves, being ignorant of the individuals who ploughed the lots, were also in as great a state of suspense as the ploughmen and the numerous body of spectators. The President of the Society, W. B. Jarvis, Esq, announced who were the successful competitors, and addressed himself to each individual, in a manner highly calculated to flatter those who had the honour of being the champions of the day; and he urged upon those who were less successful to make further attempts at improvement and competition in this particular branch, which is acknowledged on all hands to be the root of good farming.

AGRICULTURE IN THE SISTER PROVINCES.

Our readers will, no doubt, recollect, that, on a former occasion, we entered considerably into the detail of the state of agriculture, in the Provinces of Nova Scotia and New Brunswick; and pointed out a number of instances in which the Canadian farmers might take profitable lessons from their brother farmers of those Provinces. It will also, no doubt, be remembered, that the weight of wheat, and other grains in those Colonies quite exceeded any thing of the kind that we have elsewhere seen on record. We have now before us a lengthy report of the Gloucester County agricultural society, in which it is stated that spring white wheat grown in the Country, by three different farmers, of the name of Gairn Kerr, Thomas Mellar, and John Richey, equalled severally, per bushel, the extraordinary, and we may add, the unparalleled weight of *sixty-eight and a half pounds per Winchester bushel.* The heaviest sample of four-rowed barley, grown in the Country, equalled 56½ lbs. per bushel; of oats, 46lbs. and of white per 68½ lbs. per bushel. It is stated in the able report, "That agricultural improvement has been gradually, but steadily, advancing, every succeeding year's exhibition, showing a manifest improvement in the weight and quality of every description of grain until the present one, when our numerous stocks of wheat weighing sixty-eight pounds to the bushel, and may safely state the average weight of wheat and barley throughout the northern part of the country to be about sixty-four for the former and fifty-three pounds for the latter. The excellence of our soil is becoming known and appreciated; cultivation will extend; and in corn, at least, improvement must continue, through assiduity and skill, until the weight of our wheat reach seventy-pounds per bushel, our barley fifty-eight to sixty pounds, and our oats forty-eight to fifty."

The average weight of wheat in Canada can scarcely be stated to equal 60lbs per bushel; and we venture the opinion, that two bushels for one comes under that weight. If a sample equals 64lbs. per bushel it is thought to be something very extraordinary; at the same time Canada is emphatically a wheat growing country; and by judicious culture and management of the soil, we see no good reason why as heavy samples could not be grown here as in any other portion of America.

It shall be our constant aim to assist the Canadian farmers, both by advice and example, to equal, if not excel, if possible, the agriculturists of other countries.

PEAR TREES IN A DISEASED CONDITION.

A Correspondent advises those whose Pear Trees are in a drooping state, or when the bark appears dead or shrunk in spots, to cut away all the decayed parts with a sharp knife; and, by being careful to remove all that appears black or discoloured, in a few days such wounds will be thoroughly healed, and the tree cured. Dead branches, that have been entirely or partially destroyed, must be cut off, immediately below the decayed spot. In examining the disease, a considerable degree of minuteness must be observed. On old trees the diseased spots are not easily discriminated, but by probing those spots which indicate the disease with a sharp knife, when the surface is removed, the colour will show its state. The operation must take place in June.

"Ought Potatoes to be cut or Planted Whole?"—I am in the habit of planting five or six acres of potatoes yearly, and for the last two years I have planted the greater part with whole potatoes, and find they produce as good crops as with cut set, with this advantage, I have scarcely a potatoe misses growing, whereas in cut sets I have often had a great loss from dry rot. When taking up the general crop, I pick out my seed potatoes of a uniform size, each weighing about 1½ oz. I plant them in rows two feet a part, and one foot in the row, and have had exceedingly good crops.—*Agricultural Gazette.*

Cure for the Grubs.—Make a strong decoction of sage tea, drench in the usual way, will soon expel the grubs. Last summer, I had a mare that was very sick—she was up and down, rolling and tumbling; and, from the symptoms, I had just reasons to think it was the grubs—and, having heard that sage tea was a good remedy, I prepared a tea and drenched once, and in a short time the mare was relieved. She did not lie down, and roll and tumble about, after the tea was given. —*Southern Cultivator.*

An Invention.—The *Baltimore Sun* says that Mr. James Leggett, of Ladiesburg, Frederick county, Md, has just completed the working model of a machine which is considered by many to be the greatest discovery of the age. It is the application of the power of the screw to the wheel machinery, whereby the gain of the power is so great that, with a screw weighing from one to one and a half tons, a man would be able to propel a train of cars on a railroad with as much force and velocity as is now attended by the locomotive. It occupies but a small space, and can be applied to any kind of wheel machinery. By reason of the infirmities of age, together with pecuniary embarrassments, he has been, thus far, unable to have an effective machine constructed, and his wish now is to call public attention to the subject, in the hope that some enterprising persons may be induced to embark in the enterprise.

Rats.—Seeing that you recommend "Nemo" to smear the holes and passages frequented by rats with arsenical ointment, I beg to state, that as accidents frequently happen from the use of poison, perhaps some other method might be acceptable. Slice a number of corks as thin as sixpences, and then roast or stew them in grease, and lay them in the way of the rats; these will prove a delicacy, and will be speedily devoured; the rats that partake of them will die of indigestion. Another method is to cut a piece of sponge into small pieces, and fried and dipped in honey; these are placed along with shallow pans of water in the neighbourhood of their holes. By eating the sponge, and then satisfying the thirst which it prodoced, their stomachs become so distended, that it generally proves a fatal re[illegible]

AN AMERICAN HERD BOOK.

The inconvenience arising from the want of a work of this kind is already greatly felt in the United States, and with the rapid multiplication of our herds, is continually increasing. There may now be estimated at least 2,000 thoroughbred Short Horn cattle on this side the Atlantic, distributed in the hands of perhaps five hundred different breeders. These animals, in most cases, have been selected from among the best herds in England, and imported at great expense, and their descendants widely disseminated into every State of our Union and the Canadas. Strict attention has been given to their breeding, and great care bestowed to maintain their original excellence. The climate and soils of America have proved congenial to their growth and from the rapidity with which they have multiplied, and their present comparative cheapness, we may anticipate that but few further importations will be made from abroad. Still the decided advantages conferred upon one of the most important branches of our agriculture by the introduction of the Short Horns into this country, have distinctly established them as a race to be perpetuated in their purity; and the progressive improvement in American husbandry is a sufficient guarantee that they will hereafter maintain their exalted character in elevating the standard of American cattle.

So important was it esteemed by the Short Horn breeders of England to establish and record the lineage of their unrivalled herds, that in the year 1822 the first volume of Coates' Herd Book was published, containing the pedigrees of over 2,500 animals; and so strongly has the public mind sanctioned the utility of the work and its continuance, that three successive supplements have from time to time been issued, and another is now in the press, embracing altogether a list of probably 12,000 cattle.

In the great mass of these, the American breeder has little interest, although from the absence of a domestic record many of our citizens have encountered the inconvenience and expense of transmitting a list of their herds to England for registry. A moments reflection will convince us of the absurdity of a perpetual dependence upon foreign records for the pedigrees of American stock; and the great expense of obtaining the entire English herd book, comprising five large volumes, at a cost of not less than forty dollars, are subjects not unworthy of consideration; add to this the probability of errors in printing the registry at such a distance, where corrections can hardly be made, together with the possession of no greater assurance for the integrity of the records than may be found at home, and the propriety of at once establishing an American Herd Book, will be apparent.

A work of this kind has long been agitated by various gentlemen connected with cattle breeding in America; but no one has hitherto ventured the experiment, although earnestly called for by a numerous body of breeders.

Its demand then being conceded, it remains to be seen whether the public will sustain an effort to accomplish it. It is a labour involving industry, research and discrimination; and in its proper execution, demanding no ordinary degree of firmness and decision in resisting undue admissions within its pages. It may, perhaps, be deemed an act of presumption in the undersigned to assume this responsibility; but he can only answer that *some one* must undertake it, if it be undertaken at all; and having been a considerable breeder of Short Horns for many years, and more or less conversant with most of the principal herds of this country, he considers his observation and experience, together with a familar acquaintance with the volumes of the English Herd Book, somewhat of a guarantee for the performance. Be it remembered, however, that the task is not assumed without mature reflection, and after the repeated solicitations of several distinguished breeders in different sections of the United States; and if pursued, the co-operation of skilful and experienced individuals will be rendered. But for the integrity of its execution the undersigned will be solely responsible.

As this work is not proposed in the anticipation of private gain, so neither will it be expected to involve pecuniary loss. It is therefore necessary to ascertain the extent of encouragement which will be given to it before proceeding; and for that purpose the undersigned respectfully asks the publication of this notice by the agricultural press generally in the United States and the Canadian Provinces, for which together with a copy of the paper containing it, directed to him, he will present the proprietor with a copy of the work, if prosecuted.

He also requests all who approve the plan to write him, *post paid*, if by mail, previous to the 1st day of July next, stating the number of animals they propose to register, together with the number of copies they will take. If a sufficient number of responses are made to encourage the undertaking, the work will proceed; if not it will be given up. The determination of going on with it will be announced through the agricultural papers as early as September next, and those proposing to patronize the work will then be notified to forward their respective registers of cattle immediately, together with the necessary evidence of their correctness, that it may be issued as early as the spring of 1845.

As it is not expected that the sales of the book will more than pay for the printing and publication, a small charge for admission will be required, say from twenty-five to fifty cents for each animal, as the number may determine.

Well executed portraits of animals, the plates being furnished by the owners, will be inserted with the register.

The *full* pedigree of each animal will be given, running back through its whole extent in the English Herd Book, if thus furnished, together with its reference numbers, so as to render the American Herd Book a *perfect* record of every one's genealogy.

An index containing the name and residence of every breeder whose cattle are registered, will be inserted.

Another index will contain the name of every animal, and the page on which it is recorded.

The work will be prefaced with a full and accurate history of the Short Horn breed of cattle, drawn up from the best English authorities, together with a particular account of their extraordinary productions both in the dairy and at the shambles.

It will be executed as near as possible in the style of an English Herd Book, well bound, and delivered to subscribers at a price not exceeding three dollars a copy, either at New York, Albany, or Buffalo, at their option.

LEWIS F. ALLEN.

Black Rock, N. Y., April, 1844.

For the British American Cultivator.

(CONTINUED FROM THE MARCH NUMBER.)

CHERRIES.

Some of the best varieties of imported cherries are, the Early May Duke, the white Heart, the red Mazard or Downer Cherry, the Waterloo, the yellow Spanish, the black Heart, and the black Tartarian. The common little red Cherry of the country is hardly worth cultivating, if better can be got, except for planting at our corners, for the purpose of engaging the birds, and keeping them away from the better varieties, for which it, (as well as the green or wild cherry of the woods, which is also a very ornamental tree,) may be very useful. But still if it wishes to enjoy a lengthened succession of ripe fruits through the summer, ought to have Cherries of some sort.

ANDREW WILLAMSON.

Fairy Knowe, March, 1844.

Wash for Fruit Trees.—You constantly recommend that Fruit-trees should be done over with lime as a wash. Nothing can look more frightful than their glaring conspicious trunks on a hot summer's day; and to obviate this disright I use cow-dung, soot, or wood-ash, mixed up with urine, the drainage of a dung-mix, or ammonical water from the gas-works, to the consistency of thin paint. This composition appears to me to possess all the advantages of the lime, and the trunks of the trees appear lessened, and altogether much more pleasing to the eye.

Hoarseness.—One drachm of freshly scraped horse radish root, to be infused with four ounces of water, in a close vessel, for two hours, and made into a syrup, with double its weight in vinegar, is an improved remedy for hoarseness: a tea-spoonful has of on proved effectual; a few tea-spoonfuls, it is said, have never been known to fail in removing hoarseness.

ROAD MAKING.

TO THE EDITOR OF THE EXAMINER.

In your number of the 22nd inst., I notice a communication under the signature of a "Subscriber," on the subject of Road making, whose principal object apparently is, to call public attention to the praiseworthy enterprise, and efforts of a company for constructing a Plank Road, (some where West of Toronto,) from the Peacock Inn, to the Albion Road. Now while I have not the slightest disposition to detract a single *Iota* from all the commendation that your correspondent has passed on the beautiful country in the neighbourhood of Weston, and no doubt, the road in question, will be of vast importance to the whole surrounding country, (either directly, or indirectly.) I may be permitted to correct an error, he has no doubt unintentionally fallen into, and while on the subject venture a passing remark on another section of the country viz, the Township of WHITBY, which I verily believe can suffer nothing, nor need fear a comparison with any other Township or part of British North America in reference to its natural advantages, in *Harbours, Water-power, Soil, Climate, Intelligence, Wealth, Industry, Production, Exports* and *Imports*, and which in my humble opinion will, in a very short time be the *Crack* Township of Canada. Say in less than ten years.

The error to which I refer, is, where he remarks "it, (meaning the Peacock Plank Road) will also set a good example, the first of the kind in the Province." Now if there is any merit in setting the first example of the kind, unfortunately correspondents favourite spot is shorn of that honour, and fortunately for my favourite, the mantle falls gently on WHITBY. More than three years ago, a company of spirited individuals, were chartered and organized, who have raised by shares of £6 5s 0d. each, (not by Government loans, never to be repaid, but by bonafide instalments,) and expended in constructing a plank road 16 feet wide, from *Perry's corners* on the York road, to that safe and well known Harbour *Windsor Bay*, and in erecting a large, and commodious wharf and warehouse, (which I have no hesitation in asserting to be equal, if not superior to any in the Province,) costing upwards of £3000 and which has been for more than two years in successful operation, yielding to the enterprising stockholders a dividend of 12 per cent.

Thus it may be observed, that while your Correspondent in a most praiseworthy manner, passed down his name for £10, to the Peacock Road, without regard to a return in the shape of present or remote, direct dividends (an example I am sorry to see so seldom followed by those who have the means, and ought to be foremost, but who exhibit censurable indifference, and apathy in such matters,) here the subscribers to the Windsor Road Company are again on the vantage ground, they are not only entitled to the merit of being the first, but of exercising a happy and sound judgment in selecting a locality for operation, which is amply proved by the dividends above mentioned. Now although I must express my predilection in favour of first making improvements in those localities where the tolls would yield a fair return for the outlay,—I am not one of those who deny that a case may not arise, where improvements may be made, extending vast advantages to the whole surrounding county, (in an indirect way,) far exceeding the expense of constructing, and yet the tolls fall short of reimbursing. What I mean is, that if only one improvement is to be undertaken, and two localities present themselves for choice, I would invariably chose the one most likely to yield an immediate and direct return, for I hold it to be self-evident that in all cases (in road improvements) that the indirect return or advantage to the country, is in exact proportion to the direct receipts or returns.

Now in contemplating the vast and fertile country in the interior for which *Whitby* is the natural outlet and inlet, it is impossible to form any idea of what will be the business or profit of the Windsor Road Company, in a few years to come, if the dividends in 1843 over 12 per cent what will they be in 1853—it is to be recollected that Whitby as well as the back Townships, are only in their infancy, it is not over ten or twelve years ago, that very little was known of Whitby, back of the main or York road, at which time one small vessel was capable of carrying all its exports at one cargo, while a return (taken by the Collector of Customs at this port) now before me for 1843, set down the value at £44,746 10s 4d. and which from my own knowledge is far short of the whole amount. The return only gives what was shipped from regular warehouses, and even in this, it has omitted altogether the article of grass-seed, value say, £500—and it is well known that great quantities of Potatoes, Oats and Lumber is shipped from the shores outside the Harbour and Warehouses, and corn and wheat, therefore I conclude if the amount had been set down in round numbers at £50,000 it would have been much nearer the mark. It is hardly possible for the mind to imagine what the exports may in a very short time swell to. If, during the 10 or 12 years passed, it has made such rapid strides while in comparative weakness what with its present intelligence, wealth, strength and developements, it will do in the next ten or 12 years, is beyond conception.

It is to be remembered, that in addition to its natural advantages above enumerated, that (fortunately) several years ago the Hon. H. H. Killaly, whose quick and discerning perception of practical fields and localities for improvements, happened to pass through the Township of Whitby and back country, and with one glance saw the importance of connecting by a portage road, of only 18 miles distance, Windsor Bay to the navigable waters of Lake Scugog, and other navigable Lakes connected therewith, extending from 80 to 100 miles through a most picturesque, healthy and fertile country. He also observed that a most eligible line of road could be got branching from the said portage road into the fifth concession of Reach, through the centre of that Township, and the Township of Brock, Thoro, and Mara, to the narrows of Lake Simcoe (where a bridge is now building, under the direction of the Board of Works,) and from thence through Orillia, Midonta, and Tay, to the navigable waters of Lake Huron, in Gloucester Bay, from 30 to 40 miles shorter than any other rout, between the lakes, now all those objects are in the course of realization, the works at Windsor Harbour are in a state of forwardness, under the direction of the Board of Works (happily presided over) by the Hon projector of those vast and useful improvements which, when completed, (will all things considered) be the best on the Northern shores of the great Lakes.

The Lock at Purdy's Mill in Ops is completed, which perfects the backwater navigation. The 18 miles portage road is under contract and commenced, and is to be completed by the first of November. (The plank is on the ground.) and no doubt the above mentioned branch from the 5th Concession of Reach to Gloucester Bay, will, in the course of another year. (if not so made as to warrant putting up Toll Gates.) will be opened and so improved as to be a good ordinary road for all practical purposes for some years, and until the country becomes more densely settled (building the bridge at the narrows shows that so much will be done at any rate immediately, and is a sufficient guarantee that the branch road is in contemplation)

The above description, or rather facts, are the data on which I predict what will be the future prospects, and vast importance of Whitby, and Windsor Harbour, and a very short time will show that the picture is not overdrawn, and that even more will be realized than it is possible now to imagine.

When I commenced this scrawl, it was my intention to throw out some ideas that have occurred to me in regard to the cheapest and best mode of constructing plank roads, but I fear the present length of this article, will exclude its insertion, and therefore dare not extend it, if however this finds a favourable reception I will resume the subject at some future period.

I am, yours &c.,

WHITBY.

P S. The *Cultivator*, *Banner*, and *Globe* will confer a favour by copying, and other prints will do no more than an act of justice to Whitby, by doing the same, particularly those who gives "a Subscriber" an Insertion.

Whitby, 27th May, 1844.

Scours in Calves.—Lovett Peters, Esq, in a communication in the New England Farmer, says he has tried most of the remedies recommended for this disease, but has found the following to succeed better than any other. "It is a half pint of cider, and as much blood, taken from the calf's neck, shook well together, and given it with a bottle."

CONTROLLING THE HORSE.

The study of the temper, disposition, and controlling motives of the horse or the stork, is akin to that of mental philosphy, and when properly understood, assists in the training of animals, as it does in the education of children and youth A man once owned a fine family horse who had every desirable quality, except that he would take freight and run at the sight or noise of a drum. This rendered him unsafe; but the owner loth to part with him, endeavoured to break him of this infirmity. For this purpose, he hired a celebrated rider, who mounted him well armed with spurs and whip, while another was employed to beat a drum. The horse as usual was unmanageable, and the rider rolled his sides with his spurs, and plied the lash most unsparingly. But it was all in vain, all rendered the animal more ferocious, until he became frantic with fear; the owner abandoned the hope of ever rendering him a safe family horse, and sold him at a reduced price. The purchaser, however, proved himself more of a philosopher. He procured a large drum placed it on end, and covered the top with oats. He then led the horse towards it. The animal, at first, snorted and whirled around with great fury, but by gentle approaches he was at last brought so near, as to snuff the oats. He then cautiously advanced often retreating, but finally became bold enough to nibble a little; and after many sufferings and whirlings he eat the whole. The next day the process was repeated with comparatively little trouble; and it was renewed from day to day until the horse grew fond of a drum, and would run towards it whenever he heard it beat.—*Pro. Olmstead.*

A CHEAP PAINT.

Take one bushel of unslacked lime and slack it with cold water; when slacked, add to it 20lbs of Spanish whiting, 17lbs of salt, and 12 lbs of sugar. Strain this mixture through a wire sieve, and it will be fit for use after reducing with cold water. This is intended for the outside of buildings, or where it is exposed to the weather. In order to give a good colour, three coats are necessary on brick and two on wood. It may be laid on with a brush similar to whitewash. Each coat must have sufficient time to dry before the next is applied.

For painting inside walls, take as before, 1 bushel of unslacked lime, 3lbs of sugar, 5 lbs salt, and prepare as above, and apply with a brush.

I have used it on brick, and find it well calculated to preserve them—*it is far preferable to oil paint.* I have also used it

on wood, and assure you that it will last longer on rough sawing than oil paint will on planed siding or boards.

You can make any color you please. If you wish straw color, use yellow Ochre instead of whiting; for lemon color Ochre color, Lampblack; for blue, Indigo; for green, Chrome Green. The different kinds of paint will not cost more than one fourth as much as oil paints, including the labour of putting on.—*Ontario Freeman.*

ON THE DISEASES OF HORNED CATTLE.

[Every man his own Cattle Doctor, containing the Causes, Symptoms, and Treatment of all the Diseases incident to Oxen, Sheep, and Swine, and a Sketch of the Anatomy and Physiology of Neat Cattle: by Francis Clater; edited, revised, and almost re-written, by William Youatt, author of the Horse, &c.; with numerous Additions, on the Use of Oxen, and the Improvement in the Breed of Sheep, &c., by John S. Skinner; with numerous Cuts and Illustrations. Philadelphia: Lea and Blanchard. 1844.]

A very neat octavo volume, of 251 pages, with the above title, has been sent us, by the publishers. We have perused it with much interest, and pronounce it a most valuable work, which should be in the hands of every Canadian farmer. We know of no better method of repaying the compliment, to the publishers, than by recommending the work to the favourable notice of such of our friends and agents who are in the trade, in the hope that they will take steps to introduce it into this market, so that every farmer who feels a pride in devoting his attention to the improvement of his stock of horned cattle and sheep, may avail himself of the practical directions laid down in its pages.

By way of adding variety to the information contained in the Cultivator, we propose to extract occasionally from the work under notice; and hope that our readers will be benefitted, as we have been, by its perusal.

CHAPTER I.

Inflammation.

Inflammation is the most frequent diseased condition to which neat cattle are subject. This may be owing to their peculiar organization in respect to the four stomachs, in which the food is completely prepared and digested, so as to yield all its nutriment. This complicated apparatus was necessary in the animals that were destined to afford us so much liquid nutriment while living, and good fat and flesh when dead, and who must therefore be disposed to an occasional redundancy of blood in the system, and consequently to inflammation.

External inflammation is known by the part being *swollen, tender,* and *hotter* than in its natural state. In garget or downfall of the udder, which is an inflammation of one or more quarters of the bag, the affected parts are swollen, tender, and hot.

If this state of the bag is neglected, matter or pus will probably be formed. This is one of the consequences of inflammation, or one of the methods by which the part, and the constitution generally are relieved, and which is usually denominated the *suppurative process.*

Should, however, the downfall be judiciously treated, the swelling subsides, and the heat and tenderness gradually vanish: the inflammation in this case is said to be *resolved.* This is most to be wished for, and should always be attempted in inflammatory complaints.

In black-leg, a disease frequent in young cattle, the affected part loses its sensibility, and becomes dark-coloured, and is said to be *mortified.* It is then speedily separated, or ought to be separated from the living portions around. Mortification is usually the result of *veilent* inflammation, by which the texture of the part is speedily broken down, and its vitality destroyed.

External inflammation most frequently proceeds from wounds, or bruises, or other accidents to which cattle are liable. These produce different degrees of diseases, according to the severity of the injury; and when the inflammation runs high, or continues long, it affects the whole system, and brings on fever, or, in other words, a certain degree of inflammatory action pervades the entire frame.

External inflammation sometimes results from causes which affect the whole system, but the chief mischief of which is determined to particular parts, from previous weakness in them, or disposition to take on inflammation. This is the case with inflammation of the udder of cows, or the joints of young cattle. The whole frame had been exposed to cold; but the udder of the cow that had lately calved was very much disposed to inflammation, and the joints of young cattle had not acquired their full strength. In inflammatory fever, also, the inflammation will set in particular parts, from causes which it is impossible to explain, as in the tongue in blain, and in the limbs in quarter evil.

The *swelling* of the inflamed part is principally to be ascribed to the increased quantity of blood passing through it. Every little vessel is distended by the additional fluid it is compelled to carry; and there is likewise a greater deposition of fluid and solid matter in the cellular texture of the inflamed part: for every secretory vessel is doing increased duty in proportion to the blood with which it is supplied.

In the minute ramifications of the vessels, the blood is changed from arterial to venous, and it is while this change is effecting that animal *heat* is extricated or produced. In inflammation, a great deal more than the natural quantity of blood is passing through these vessels: a great deal more is changed from arterial to venous; and a great deal more heat must necessarily be evolved.

The *tenderness* is caused by unnatural distension of the vessels, and by their pressure on the neighbouring parts, and also the pressure of the natural deposit produced by inflammation. The nerves of sensibility likewise unite very freely with the nerves of another order that supply the capillaries; and when the nerves of the capillaries are irritated, those of sensibility will become irritable too, and the part will become so tender as not to be touched without extreme pain.

Internal Inflammation.

Internal inflammation is characterised by other and often more indistinct symptoms. We can here seldom ascertain the heat or tenderness or swelling of the part, and can usually only judge of the complaint by the effect which it produces on the system. Every internal inflammation does, however, soon affect the system. There is no inflammation of any important internal part that is not quickly accompanied by fever; and that fever and the degree of it are easily ascertained, by the heat of the breath and the mouth and the base of the horn, by the redness of the eye, and the frequency and hardness of the pulse, the loss of appetite, and, often, the cessation of rumination.

The symptoms of internal inflammation will be related as the inflammation of each part comes before us.

Whether inflammation is internal or external, resolution is to be attempted, or, in other words, the inflammation is to be subdued.

When it seizes any important organ, as the *brain, lungs, bowels, kidneys, eyes, udder,* or *womb,* bleeding is to be immediately had recourse to; and, after bleeding, a purging drink is to be administered: sometimes it is necessary to insert a seton in the dew-lap.

In external inflammation from severe bruises, wounds, and other accidents, fomentation with warm water, poultices made of linseed meal—when they can be applied—and the purging drink (No. 2), give much relief. If external inflammation is considerable, it will always be necessary to bleed the beast.

CHAPTER II.

Bleeding, its Utility—and in what Cases necessary.

Bleeding is a most useful and powerful remedy in the cure of inflammatory complaints. It lessens the quantity of blood in the vessels, and diminishes nervous power. The following are the chief diseases in which bleeding is required:—

1. Where animals in a thriving state rub themselves until the hair comes off, and the spot is covered with a dry scab; while at the same time the eyes appear dull, languid, red, or inflamed, the breath hot, and the veins puffed up, and considerably larger than usual.

2. In all kinds of inflammatory diseases, as of the *brain, lungs, kidneys, bowels, eyes, womb, bladder, shape,* and *udder,* or in swelling of the joints.

3. In the disease called blain, and in which bleeding, not only general but local, and local far more than general, has the best possible effect, the tumefaction usually almost immediately subsiding, and the beast speedily recovering.

4. When the glands or kernels between the jaws, or those of the throat, are enlarged, and especially if they are only recently affected, immediate recourse should be had to bleeding, for otherwise the lungs will probably become diseased, and dangerous or consumptive hoose will speedily ensue.

5. In bruises, hurts, wounds upon the head, strains in different parts, and all other accidents that may occur to the animal, and in which there is reason to apprehend considerable inflammation, bleeding will be proper.

6 In violent catarrh or cold, bleeding is employed; but, in slight cases, a few fever drinks will restore the animal.

7. The yellows, when attended with feverish symptoms, or constipation of the bowels, requires bleeding.

The manner of performing this operation is too well known to require any description.

The *Fleam* is an instrument in general use for oxen, and the jugular or neck vein is that which is mostly opened. Local bleeding is, however, in many cases particularly serviceable. In inflammation of the eye, the eye-vein is frequently cut: in foot-halt, we sometimes bleed at the toe; and in inflammation of the bowels, or the udder, or even of the chest, blood is advantageously taken from the milk-vein.

The quantity of blood that it may be proper to take away at one time cannot here be determined; but must be regulated by the size strength, and condition of the animal, and the disease under which he labours. In many inflammatory complaints too much can hardly be taken, provided the bleeding is stopped as soon as the patient appears likely to faint or to fall down. A strong healthy beast will bear the loss of five or six quarts of blood, without the least injury. Larger cattle, that are attacked with inflammatory complaints, will profit by the abstraction of a greater quantity; seven or eight quarts may be taken away with decided advantage: but when it is necessary to repeat the bleeding, the degree of fever and the strength of the beast will regulate the quantity. The blood should flow from a large orifice, for sudden depletion is far more powerful in its operation than when the blood is suffered slowly to trickle down. The blood must *never be suffered to fall upon the ground, but should be received into a measure,* in order that the quantity taken may be

known. No absolute quantity of blood should ever be prescribed, but when extensive bleeding is demanded, the stream should flow until the pulse falters, or intermits, or the animal begins to heave violently, or threatens to fall, or other circumstances show that the system is sufficiently affected. The beast should not be permitted to drink cold water immediately after bleeding, nor to graze in the field: the former has sometimes induced troublesome catarrh, and the latter may cause the orifice to open again. If this operation is performed in the summer season, it will be most prudent to fetch the cattle out of the pasture towards evening, in order that they may be bled; and, after that, to let them stand in the fold-yard all night, and drive them back to the field on the following morning.

CHAPTER III.

On Physic.

Purging medicines operate by increasing the evacuation of faeces from the bowels, and thus often removing a very considerable source of irritation. They augment the secretion of the exhalent vessels situated on the internal coat of the intestines, and thus, by producing watery stools, lessen the quantity of fluid circulating through the system. They divert the increased flow of the blood from the affected organ, and determine it to the bowels, which is well elucidated in red water, and they have a peculiar influence on the nervous system, augmenting the energy of the nerves distributed to the intestines, but diminishing it in other parts of the system.

The chief purgatives in use for neat cattle are Glauber's salts, Epsom salts, Barbadoes aloes, Linseed oil, and Sulphur. In obstinate constipation of the bowels, ten or fifteen grains of the farina of the Croton nut, freshly prepared, may be added with good effect. One pound of Glauber's, or Epsom salts, will purge a full-sized beast. Aloes are very properly getting into disuse: they are uncertain in their effect, they require very considerable doses of them to be given in order to act alone, and if they should be received into the rumen they are apt to disgust and nauseate the animal. Half an ounce, or six drachms of them, however, may be added to the salts in particular diseases. Where there is considerable fever, or the attack of fever is apprehended, there is no purgative so beneficial as the Epsom salts. In bad cases, twenty-four ounces may be given at a dose, and eight ounces of sulphur every six hours afterwards, until the full purgative effect is produced. Linseed oil is rapidly superseding the more expensive and the more uncertain castor oil: the dose is from a pint to a pint and a half. As a mild aperient, and in cases where there is no great degree of fever, and a violent purge is not required, there are few better things than Sulphur. Where nothing else is at hand, and the case is urgent, Common Salt is no contemptible medicine: a pound of it dissolved in water will produce a very fair purgative effect, but it should not be given if the animal labours under fever. The following are the cases in which purgative medicines are found useful:—

1. I have known some graziers who, when feeding old cows (during summer,) have given them a purging drink about every six weeks, by way of keeping off the downfall, which in general has had the desired effect, and has even caused them to fatten more rapidly.

2. A purging drink is very properly given to cows soon after calving, in order to prevent the milk fever.

3. Neat cattle are naturally of a greedy and ravenous disposition, and their appetite is hardly ever satified. Milch cows in particular, if feeding on herbage, or other food agreeable to their palate, will often continue to graze until they are in danger of suffocation. Thus the powers of digestion become over-burdened, and the animal appears dull and heavy, and feverish symptoms are induced. Purgatives will give the most effectual relief in these cases, and if the appetite does not return soon after the physic, a cordial ball will be useful in restoring it.

4. Cows that are turned into fresh pastures sometimes become bound in their body, in which case a purging drink must be immediately administered, and repeated every twelve hours, until the desired effect is obtained: a clyster should be given, if the first drink does not operate. If costiveness is accompanied with pain and feverish symptoms, inflammation of the bowels is to be suspected, and must be treated accordingly.

5. When red-water is recent, a purging drink or two will often completely remove it.

6. In the yellows it is generally necessary to give a purging drink, and, after that, cordial tonic drinks, in order to invigorate the digestive organs

7. When medicines are given to prevent cows from slipping their calves, they are generally preceded by physic.

8. In all inflammatory complaints, a purging drink should be administered after the bleeding.

9. If external inflammation, occasioned by wounds, bruises, and other causes, runs high, and affects the whole system, purgative medicines are absolutely necessary.

CHAPTER IV.

On Setoning.

The utility of setoning for the cure of several diseases incident to neat cattle cannot be doubted. There are many localities in which, if farmers did not adopt this precaution, they would lose great numbers of their young from the black leg.

In some districts the hoose in calves is very prevalent and fatal: where this is the case, they should all be setoned when they are getting into condition, and before they are attacked by the disease. This will either lessen the violence of the complaint or prevent it altogether.

In joint evil, I have frequently inserted a seton in the dewlap with decided good effect.

Setoning will be often prescribed, in the course of this treatise, in inflammatory complaints, and it acts by exciting a new and artificial inflammation in the neighbourhood of the former one, and thus lessening its intensity. This plainly proceeds on the principle of diverting to another part a portion of the blood which was determined to the original one, while also a new direction is given to a portion of the nervous influence or power which was concentrated on it. This is in accordance with the generally received medical maxim, that no two violent inflammations, of different character, can exist in neighbouring parts at the same time; and that in proportion to the intensity of the one the other will be diminished.

By the discharge which a seton produces it will likewise relieve the overloaded vessels of a neighbouring inflamed part.

Mode of inserting a Seton.—The seton is commonly made of tow and horse hair plaited together, or cord or coarse tape alone, or leather. It should be tolerably thick, and eight, ten, or twelve inches in length. Before inserting the seton, it should be dipped in oil of turpentine. The seton being now prepared, an assistant is to hold the animal, while the seton-needle, with the cord affixed to it, is plunged into the upper edge of the brisket or dewlap, and brought out again towards its lower edge: the space between the two openings should be from four to eight inches. The seton is to be secured by fastening a small piece of wood, or tying a large knot at either end of the cord. Matter will begin to run the second day, and, after that, the cord should be drawn backwards and forwards two or three times every day, in order to irritate the parts, and by this means increase the discharge.

When setoning is had recourse to in inflammatory complaints, the cord should be dipped in the following blistering ointment:—

Blistering Ointment.—Take yellow basilicon, one ounce; cantharides, in powder, three drachms; spirit of turpentine, two fluid drachms

This ointment will be found to act efficaciously and quickly in stimulating the parts to action, and hastening on the suppurative process.

The root of the common dock forms a very good seton, and one that will act speedily and powerfully; but the best of all, where a considerable effect is intended to be produced, is the root of the black hellebore. This will very quickly cause considerable swelling as well as discharge.

YEAST.

We have received three recipes for making yeast, from different correspondents. One informs us that the following never fails to make light good bread:—Mash about two quarts of malt in a gallon of boiling water, and let it stand about two hours, then skim it off into another small tub, and when it is sufficiently cool, add a table-spoonful of yeast, which will produce a sufficient quantity for a large baking. Repeat whenever you want a fresh supply, always keeping a little of the former yeast to make the next work; the process is the same as brewing, only without adding hops, or boiling the wort. If the weather is very cold it may require to be put by the kitchen fire to make it work. Yeast will fall to the bottom of the tub, besides that which rises to the top. Another states that eight gallons of excellent yeast may be made as follows:—Take ten gallons of water, and half a pound of hops, boil them for two hours, then strain the liquor into a tub, and stir in half a peck of ground malt, mix them well together and stir occasionlly; let it stand until blood-warm, then take one gallon of yeast, from the brewer at first, and afterwards from the remains of your own stock, with two pounds of flour, mix all together, and let it work eight hours, then stir it up, and strain into a barrel, and keep it well corked. The result will be about eight gallons, which has an appearance between that of thick beer and thin yeast. The method of using this yeast for the manufacture of 35 stone of bread is as follows:—Boil one and a half peck of potatoes, mash them well and strain them, add about one and a half gallon of cold water, mix them well together, then one gallon of the above patent yeast, with two pounds of flour, stir up well, and cover down for five hours prior to setting sponge, which will be ready in seven or eight hours, according to the weather; great precaution must be used in taking the sponge at the first or second fall, in order to get the bread sweet. The dough must not be allowed to lie longer than an hour in hot weather, but put into the oven as soon as possible. This will be found to surpass any brewer's yeast that can be made, if properly used. This receipt is on a larger scale, and will, of course, have to be proportionably divided for domestic use. If a smaller quantity be made, viz, a gallon or two, it will, if in a stone bottle, tightly corked, and put in a cool place, keep good for a long time. A third communication says:—Boil one ounce of hops in four quarts of water until the hops fall to the bottom of the pan, strain it, and when milk-warm, add six ounces of flour and five of sugar; set the mixture by the fire, stirring it frequently; in 48 hours add four pounds of potatoes, boiled and brushed fine; next day bottle the yeast—it will keep a month. One-fourth of yeast, and three of warm water, is the proportion for baking.—[We have tried this, and find it a good substitute for yeast.]—*Gardener's Chronicle.*

WATER-PROOF GLUE.

Melt common glue in the smallest possible quantity of water, and add, by drops linseed oil that has been rendered *drying* by having a small portion of litharge boiled in it; the glue being briskly stirred when the oil is added.

Glue will resist water, to a considerable extent, by being dissolved in skimmed milk.

The addition of a finely levigated chalk, to a solution of common glue in water, strengthens it, and renders it suitable for signs, or other work that is exposed to the weather.

A glue (or cement) that will hold against fire or water, may be made by mixing and boiling together linseed oil and quicklime. This mixture must be reduced to the consistence of soft putty, and then spread on tin plates and dried in the shade, where it will dry very hard. This may afterwards be melted like common glue, and must be used while hot.—*American Mechanic.*

(Continued from the April Number.)

AN EASY METHOD OF MANAGING BEES, IN THE MOST PROFITABLE MANNER TO THEIR OWNER.

The above is the title of a neatly printed manual, which was lately presented to us by Mr. David Lesslar, of Churchville, Home District. Mr. L. informs us that he has followed out in detail the directions of the author, and his efforts have been crowned with success.

If the Canadian farmers would turn their attention largely to the management of Bees, the article of honey would very shortly become a considerable item on our list of exports to England. Immense quantities of honey is imported yearly into the Mother Country from Holland and other continental countries, all of which might be supplied from this country if the people would only turn their attention to the business.

RULE III.

On Ventilating the Hive.

Graduate the bottom board and ventilator at pleasure by means of the button or otherwise, so as to give them more or less air, as circumstances may require.

Remarks.—Bees require more air in order to enable them to endure the heat of summer and the severity of winter, than at any other time. If they are kept out in the cold, they need as much air in the winter, as in the heat of summer. It is in a mild temperature only, that it is safe to keep them from the pure air. If placed below frost in a dry sand-bank, they seem to need scarcely more than is contained in their hive at the time they are buried, during the whole winter. If kept in a clean, dry cellar, the mouth so contracted as to keep out mice, give them enough. But if they are kept in the apiary, there should be a slow, imperceptible current of air constantly passing in at the bottom and off at the top through the ventilator, to let the excess of animal heat escape in summer, and also to throw off the vapor caused by the breath and other exhalations of the bees, which caused frost and ice in the hive in winter, and which is frequently the cause of the death of the bees.

RULE IV.

On Preventing Robberies.

At the moment it is observed that robbers are within, or about the hive, raise the bottom board so near the edge of the hive as to prevent the ingress or egress of the bees, and stop the mouth or common entrance and ventilator. At the same time, take care that a small space on all sides of the hive be left open, so as to afford them all the air they need. Open the mouth only at evening to let out the robbers, and close early in the morning before they renew their attack.

Remarks.—Bees have a peculiar propensity to rob each other, and every precaution necessary to prevent it should be exercised by the cultivator. Families in the same apiary are more likely to to engage in this unlawful enterprize than any others, probably because they are located so near each other, and are more likely to learn their comparative strength. I never could discover any intimacy between colonies of the same apiary, except when they stood on the same bench; and then, all the social intercourse seems to subsist between the nearest neighbors only.

Bees are not likely to engage in warfare and rob each other, except in the spring and fall, and at other times in the season when food is not easily obtained from blossoms.

Bees do not often engage in robbery in the spring, unless it is in such hives as have had their combs broken by frost or otherwise, so as to cause the honey to drip down upon the bottom board. Much care should be exercised by the apiarian to see that all such hives are properly ventilated, and at the same time closed in such a manner as to prevent the entrance of robbers in the day time, until they have mended the breach, so as to stop the honey from running.

Clear water should be given them every day so long as they are kept in confinement.

I have known many good stocks to be lost in the spring by being robbed; and all for want of care. Bees rob each other when they can find but little else to do; they will rob at any time when frost has destroyed the flowers, or the weather is so cold as to prevent their collecting honey from them. Cold, chilly weather prevents flowers from yielding honey, without frost.

Bees need but little air at any time when they rob; and yet more is necessary for them when confined by compulsory means, than otherwise. When deprived of their liberty, they soon become restless, and use their best efforts to make their way out of the hive;—hence the importance of leaving a small space all around the bottom to admit air and to prevent their melting down, or use a screen bottom board, which is better.

RULE V.

On Equalizing Colonies.

Hive one swarm in the lower apartment of the hive; collect another swarm in a drawer, and insert the same in the chamber of the hive containing the first. Then if the swarms are small, collect another small swarm in another drawer, and insert the same in the chamber of the hive containing the first, by the side of the second. In case all the bees, from either of the drawers, mingle and go below with the first swarm, and leave the drawer empty, then it may be removed, and another small swarm added in the same manner.

Remarks.—It is of prime importance to every bee cultivator, that all his colonies be made as nearly equal in numbers and strength, as possible. Every experienced bee-masters must be aware that small swarms are of little profit to their owner. Generally, in a few days after they are hived, they are gone;—no one can trace their steps; some suppose they have fled to the woods—others, that they were robbed: but after all, no one is able to give any satisfactory account of them. Some pieces of combs only are left, and perhaps myriads of worms and millers finished off the whole. Then the moth is supposed to be their destroyer, but the true history of the case is generally this:—The bees become discouraged, or disheartened, for want of numbers to constitute their colony, abandon their tenement, and join with their nearest neighbours, leaving their combs to the merciless depredations of the moth. They are sometimes robbed by the adjoining hives, and then the moths finished or destroy what is left.

When bees are collected in drawers for the purpose of equalizing colonies, by doubling, &c., they should be permitted to stand until evening before they are united, it being a more favorable time for them to become acquainted with each other by degrees, and the scent of the bees in the lower apartment will enter through the apertures during the night so much that there is a great degree of sameness in the peculiar smell of the two colonies, which takes off their animosity, they chance to have any.

Second swarms are generaly about half as large as the first, and third swarms half as large as second ones.

Now if second swarms are doubled, so as to make them equal in number with the first, the owner avails himself of the advantage of a strong colony, which will not be likely to become disheartened for want of numbers, nor overcome by robbers from stronger colonies.

It is far less trouble, and less expense, for the bee-owner to equalize his colonies, than to prepare hives and drawers of different sizes of fit colonies.

When colonies and hive are made as near alike as possible, many evils are avoided, and many advantages realized: every hive will fit a place in the apiary—every drawer a hive, and every bottom board and slide may in any case be used without mistakes.

Swarm may be doubled at any time before they become so located as to resume their former hostility, which will not be discovered before they form a rational character and acquire rights of property. Bees are provided with a reservoir, or sack, to carry their provision in, and when they swarm, they go loaded with provision suited to their emergency, which takes off all their hostility towards each other; and until these sacks are emptied, they are not easily vexed, and as they are compelled to build combs before they can empty them, their contents are retained several days. I have doubled, at a fortnight's interval in swarming, with entire success. The operation should be performed within two or three days—at the farthest four days. The sooner it is done, the less hazardous is the experiment.

As a general rule, second swarm only should be doubled. Third and fourth swarm should always have their Queens taken from them, and the bees returned to the parent stock, according to Rule 10.

RULE VI.

On Removing Honey.

Insert a slide under the drawer, so far as to cut off all communication between the lower apartment and the drawer. Now draw out the box containing the honey, with the slide that is next to it. Set the drawer on its window end, a little distance from the apiary, and remove the slide. Now supply the place of the drawer, thus removed, with an empty one, and draw the first inserted slide.

Remarks.—Care must be exercised in performing this operation. The apertures through the floor in the chamber must be kept closed by the slides during the process, so as to keep the bees from rushing up into the chamber when the box is drawn out. The operator must likewise see that the entrances into the drawer are kept covered with the slide, in such a manner as to prevent the escape of any of the bees, unless he is willing to be stung by them. If the bees are permitted to enter the chamber in very warm weather, they will be likely to hold the occupancy of it, and build comb there, which will change the hive into one no better than an old fashioned box.

I have succeeded best in expelling the bees from the drawer, by the following method, to wit:—Shut the windowblinds so as to darken one of the rooms in the dwelling-house—raise up one casement of a window—then carry the drawer and place the same on a table, or stand, by the window, on its light, or glass end, with the apertures towards the light. Now remove the slide, and step immediately back into the dark part of the room. The bees will soon learn their true condition, and will gradually leave the drawer, and return home to the parent stock; thus leaving the drawer and its contents for their owner; not however until they have sucked every drop of running honey, if there should chance to be any, which is not often the case, if their work is finished.

There are two cases in which the bees manifest some reluctance in leaving the drawer. The first is, when the combs are in an unfinished state—some of the cells not sealed over. The bees manifest a great desire to remain there, probably to make their stores more secure from robbers, by affixing caps to the uncovered cells, to prevent the effluvia of running honey, which is always the greatest temptation to robbers.

Bees manifest the greatest reluctance in leaving the drawer, when young broods are removed in it, which does not often occur, except in such drawers as have been used for feeding in the winter or early in the spring. When the Queen has deposited eggs in all the empty cells below, she sometimes enters the drawers; and if empty cells are found, she deposites eggs there also. In either case, it is better to return the drawer, which will be made perfect by them in a few days.

Bees never make honey, but extract it from such flowers and other substances as yield it without producing any change from its original state. Good honey is taken principally from white clover, orchards, sugar-maple, bass, and other forest trees, while in blossom. Poor honey is extracted from buckwheat, and low land flowers, hence those who would save their good honey unadulterated by that which is poor, will remove it before the latter can be extracted.

Special care is necessary in storing drawers of honey, when removed from the care and protection of the bees, in order to preserve the honey from insects, particularly the ant. A chest, made perfectly tight, is a good store-house.

If the honey in the drawers is to be preserved for winter use, it should be kept in a room so warm as not to freeze. Frost cracks the combs, and the honey will drop as soon as warm weather commences. Drawers should be packed with their apertures up, for keeping or carrying to market. All Apiarians who would make the most profit from their bees, should remove the honey as soon as the drawers are filled, and supply their places with empty ones. The bees will commence their

labours in an empty box that has been filled, sooner than any others. Drawers in old stocks, should be turned so as to let the bees into them as early in the spring as blossoms are seen.

RULE VII.

The Method of compelling Swarms to make and keep extra Queens for their Apiarian, or Owner.

Take a drawer containing bees and brood comb, and place the same in the chamber of an empty hive, take care to stop the entrance of the hive, and give them clean water daily, three or four days. Then unstop the mouth of the hive and give them liberty. The operator must observe Rule six in using the slides, in removing the box from the original hive.

Remarks.—The prosperity of every colony depends entirely on the condition of the Queen, when the season is favourable to them.

Every bee-master should understand their nature in this respect, so as to enable him to be in readiness to supply them with another Queen when they chance to become destitute.

The discovery of the fact, that bees have power to change the nature of the grub (*larva*) of a worker to that of a Queen, is attributed to Bonner. But neither Bonner nor the indefatigable Huber, nor any other writer, to my knowledge, has gone so far in the illustration of this discovery as to render it practicable and easy for common people to avail themselves of its benefits.

The Vermont hive is the only one, to my knowledge, in which bees can be compelled to make and keep extra Queens for the use of their owner, without extreme difficulty, as well as danger, by stings, in attempting the experiment.

The idea of raising her royal highness, and elevating and establishing her upon the throne of a colony, may, by some, be deemed altogether visionary and futile; but I will assure the reader, that it is easier done than can be described. I have both raised them, and supplied destitute swarms repeatedly.

When the drawer containing bees and brood comb is removed, the bees soon find themselves destitute of a female, and immediately set themselves to work in constructing one or more royal cells. When completed, which is commonly within forty-eight hours, they remove a grub (*larva*) from the worker's cell, place the same in the new-made Queen's cell, feed it on that kind of food which is designed for Queens, and in from eight to sixteen days they have a perfect Queen.

As soon as the bees have safely deposited the grub in the new-made royal cell, the bees may have their liberty. Their attachment to their young brood, and their fidelity to their Queen, in any stage of its minority, is such that they will never leave nor forsake them, and will continue all their ordinary labours, with as much regularity as if they had a perfect Queen.

In making Queen's in small boxes or drawers, the owner will not be troubled by their swarming the same season they are made. There are so few bees in the drawer, they are unable to guard the nymph Queens, if there are any from being destroyed by the oldest, or the one which escapes from her cell first.

In examining the drawer, in which I raised an extra Queen, I found not only the Queen, but two royal cells, one of which was in perfect shape; the other was mutilated, probably by the Queen which came out first. Now when there are few bees to guard the nymphs, it would not be very difficult for the oldest Queen to gain access to the cells, and destroy all the minor queens in the drawer.

When a drawer is removed to an empty hive, for the purpose of obtaining an extra Queen, it should be placed some distance from the apiary, the better to prevent its being robbed by other swarms When it is some distance from other colonies, they are not so likely to learn its comparative strength. There is but little danger of its being robbed, until after the bees are out of danger of losing their Queen, which generally occurs in the swarming season.

The Queen is sometimes lost, when she goes forth with a swarm, in consequence of being heavily laden with eggs, and too feeble to fly with her colony; in which case the bees return to their parent stock in a few minutes. It fact all occurrences of this kind originate in the inability of the Queen. If she returns to the old stock, the swarm usually comes out the next day, if the weather is favorable. If the Queen is too feeble to return, and the apiarian neglects to look her up and restore her to her colony again, (which he ought to do,) the bees will not swarm again until they have made another, or are supplied, which may be done immediately by giving them any spare Queen.

The Queen is sometimes lost, in consequence of the young brood being too far advanced at the time of the departure of the old Queen with her swarm. She may become barren or diseased, and die of old age, and all the grubs (*larva*) may have advanced so far towards the perfect fly at the time of her death, that their nature could not be changed to a Queen before the bees had become apprized of her true condition, or she may be lost at second swarming, as explained in remarks on Rule second, or she may be lost by accident when she goes out of the hive into the air for exercise, or for the purpose of forming the sexual union with the drone; because, on returning to the hive, she has been known to enter her neighbour's hive by mistake, and lose her life before she could make her escape.

Note—I think all close observers of Bees will accord with this doctrine, when they reflect upon the fact that the Queen frequently sallies forth for exercise or for other purposes, of which we see repeated indications during the breeding season, to wit: the bees assume the appearance of the commencement of swarming: they fly very thick before the hive, and run in every direction on its outside. In short, it would seem that hostilities had commenced in great earnest betwixt that and some unknown hive, or that they were in a real sport Now the bees miss their sovereign when these peculiar feats are seen, and on her return, all is quiet.

RULE VIII.

On Supplying Swarms Destitute of a Queen, with Another.

Take the drawer from the hive, which was placed there according to Rule seven, and insert the same into the chamber of the hive to be supplied; observing rule six in the use of the slides; —or remove a box containing brood comb as above described, and the bees will make one for themselves:—or take a Queen from any small swarm, and introduce her at the mouth of the hive.

Remarks—Colonies destitute of a Queen may be supplied with another the moment it is found they have none, which is known only by their actions.

Bees, when deprived of their female sovereign, cease their labours, no pollen or bee-bread is seen on their legs; no ambition seems to actuate their movements; no dead bees are drawn out; no deformed bees, in the various stages of their minority are extracted, and dragged out of their cells, and dropped down about the hive, as is usual among all healthy and prosperous colonies.

Colonies that have lost their Queen, when standing on the bench by the side of other swarms, will run or fly into the adjoining hive without the least resistance. They will commence their emigration by running in confused platoons of hundreds, from their habitation to the next adjoining hive. They immediately wheel about and return home again, and thus continue, sometimes for several days, in the greatest confusion, constantly replenishing their neighbor's hive, by enlarging their Colony, and at the same time reducing their own, until there is not a single occupant left; and remarkable as it is, they leave every particle of their stores for their owner or the depredations of the moth.

Colonies lose their Queens more frequently during the swarming season than any other.

In the summer of 1830, I lost three good stocks of bees in consequence of their losing their Queens, one of which was lost soon after the first swarming—the two others not many days after the second swarming—all of which manifested similar actions, and ended in the same results, which are more particularly explained in remarks on Rules two and seven.

The Queen, when lost in swarming is easily found, unless the wind is so strong as to have blown her a considerable distance. A few bees are always found with her, which probably serve as her aids, and greatly assist the apiarian in spying her out. She is frequently found near the ground, on a spire of grass, the fence, or any place most convenient for her to alight, when her strength fails her. I once had quite a search for her Majesty, without much apparent success. About the same time there were flying about me a dozen or more common workers. At last her royal highness was discovered, concealed from my observation in a fold of my shirt-sleeve. I then returned her to her colony, which had already found their way home to their parent stock.

The Queen may be taken in the hand without danger, for she never stings by design; her timidity disarms her of every species of hostility; she may be drawn in quarters, and she will not sting. In trying many experiments I never could discover in her, the least hostile feeling, except when conflicting with one of her own species; her only exertion seems to be, to make her escape; and yet she has a sting much longer than a worker.

The Queen is known by her peculiar shape, size, and movements. She differs but little in color from a worker, and has the same number of legs and wings. She is much larger and longer than any of the bees. Her abdomen is perfectly round, & is shaped more like the sugar-loaf, which makes her known to the observer the moment she is seen. Her wings and proboscis are short. Her movements are stately and majestic; at the same time shy, and rather inclined to conceal herself from human observation; with seeming jealousy of being caught. I have known her to remain in the air on the wing several minutes after her whole colony were alighted when I stood near the swarm. She is much less in size after the season for breeding is over. She is easily selected from among a swarm at any season of the year, by any one who has often seen her. Cut off the limb and shake the bees on a table to find the Queen.

RULE IX.

On Multiplying Colonies to any Desirable Extent, without their Swarming.

The large drawer, No. 1, should always be used for this purpose. Insert slides, as in Rule 6, and remove the drawer containing bees and brood comb, place the same in the chamber of an empty hive, stop the entrances of both the new and old hives, taking care to give them air as in Rule 4. Give clean water daily, three or four days. Now let the bees, in both hives, have their liberty.

Remarks.—This operation is both practical and easy, and is of prime importance to all cultivators, who wish to avoid the necessity of hiving them when they swarm; and yet it will not prevent swarming, except in that part of the divided colony which contains the Queen at the time of their separation. The other part being compelled to make another Queen, (and they generally make two or more) may swarm to avoid their conflict, as explained in remarks on Rule 2. The hive containing the old Queen may swarm for want of room; but, at any rate, in performing the operation, it has saved the trouble of hiving one swarm, and prevented all danger of their flight to the woods.

Multiplying colonies by this rule is a perfectly safe method of managing bees.

(*To be Continued.*)

RECIPE FOR COLORING BLUE.

By L. Ellsworth.

Take two bushels purslin, (*Portulaca*) known as "pusley," which grows in our gardens in abundance; add a sufficient quantity of water to cover it when pressed down into the kettle, and boil until thoroughly cooked; then strain off the liquor; also one pound of ground logwood, boiled separately; dissolve one quarter of a pound of alum in a sufficient quantity of water to cover four pounds of wool or cloth; then boil the wool or cloth in the alum water two hours; then add the purslin liquor and the logwood, and boil two hours more. When the article is first taken from the dye it will have a purple hue, but will soon turn to a handsome blue, on being exposed to the air. The quantity may increased or diminished as required—opserving the above proportions. The cost is as follows:—

2 bushels purslin,	$0 00
1 lb. logwood,	.05
¼ " alum,	.02½
Total,	$0,07½ for 4lbs. goods.

Naperville. Ill., 1844.

[From the Baltimore American.]

SCARLET FEVER.

As this intractable disease, in its most malignant form, has extensively prevailed during the past winter, and still continues its progress, in our city, causing many tears to flow from agonized parents, who had their darling little ones suddenly snatched from them by its ruthless grasp, I would call the attention of those, whose homes have not yet been made desolate by its inroads, to the following prophylatic or preventive measure, which, among practitioners of medicine in Germany, has been used with such eminent success, but which in this country, I believe, is scarcely known, out of the profession:—

Dissolve three grains of the Extract of Belladonna in one ounce of cinnamon water (triturated together in a morter) and of this solution, give three drops in a little sugar and water, to a child one year old, once a day, increasing the dose one drop for every additional year in the age of the patient. In this minute dose it can do no possible injury, whilst the mass of evidence in favor of its complete prophylatic power, is conclusive.

Impelled by a desire to stay the further progress of this fatal epidemic, it would afford me much satisfaction to have the above information disseminated, and it would be subserving the cause of humanity, to allow it a corner in the columns of your valuable sheet.

MEDICUS.

Baltimore, March 23rd 1844.

CLEANLINESS.

A strict attention to cleanliness and sweetness in our persons, houses, door yards, clothes, and furniture, not only produce a pleasing sensation to ourselves and all around us, but is also a means of preserving our health. Loathsome and even noxious vapors are often generated around dwellings, causing sickness, and perhaps death, for want of a strict attention to cleanliness. All slops and washes from the kitchen should be carefully conveyed into the garden or thrown upon the manure heap, and never suffered to be merely thrown out at the door, to the annoyance of the family and their visiting friends, and not unlikely to the lasting injury of their health. Pure water is sought by all as conducive to health; but air, on which our vitals are constantly feeding, is really too much neglected

POTATO STARCH.

We find in the *Cleveland Herald*, the following method of making potato starch, which it says is the veritable Arrow-root, so highly valued for invalids:—

"Take a dozen large and smooth mealy potatoes, wash them, and then carefully pare off all the rind. Next grate them fine with a suitable tin grater. The pulp must be mixed with a pailful of cold water, and thoroughly agitated and squeezed by the hand or any suitable instrument, at the same time throwing away the fibrous matter, and permitting the starch to sink to the bottom of the vessel. This must have a fresh washing in cold water, till the pure farina is obtained fr from all other matter. This should be spread on earthen dishes, and dried in a warm, airy situation."

The good housewife will exclaim, 'Why this is nothing but potato starch.' True, it is not—nor have you used any other article under name of arrow-root, for the sick members of your family, though you may have purchased it at the rate of several shillings per pound.

By proper modes of cooking, known to every nurse and housekeeper, this article becomes a delightful beverage for invalids weak of digestive powers; while as a pleasant dietary, even to persons in good health, it possesses a strong attraction.—*American Agriculturist.*

Invaluable Salve.—Take three carrots and grate them; place in a vessel, cover with lard, without salt if convenient. Boil thoroughly, strain, and add sufficient bee-wax to make a paste. This is a most invaluable ointment or salve, for *cuts, burns, scalds or wounds of any kind.*

SUPERIOR DUTCH CHEESE.

Take sour loppered milk, skim of the cream, then set it over the fire in an iron pot—brass is poisonous. Let it remain until the curd rises, which will be when the whey is scalding hot at the bottom of the pot; there is a difference in the heat of the whey at top and bottom. Skim the curd into a basket, which is best; let it remain six or eight hours to drain, then break the curd (on a table) as fine as possible; after which put the curd lightly in a stone jar, salting it to taste. Let it remain in the jar, stirring it twice a day with a wooden spoon or round stick, keep it loose and light, until it becomes palatable to the taste of the maker. The cheese acquires a disagreeable flavor if kept too long in the jar. Make the cheese into small balls, and set them in a cellar. It should not be eaten the first few days, and is best flavored from one week to two weeks old.

AN ORANGE COUNTY LADY.

Analysis of Soils.—The following is a method of analysing soils for ordinary Agricultural purposes:—Weigh a convenient quantity of the earth to be analysed, say 1000 grains dried in the open air; dry the same before a fire on paper, so as not to scorch the paper; re-weigh, and the difference will be the organic matter. Pour a convenient quantity of muriatic acid on the remainder; when stirred and settled pour it off, and add oxalate of ammonia: the precipitate will be the lime. Mix remainder with water, and stir it well; when a little settled, pour off the turbid mixture, and the suspended contents are agillaceous, and the deposit silicious.—*An Old Subscriber.*

Turnip Seed.—As the following method of treating Turnip seed has proved very successful in preventing the ravages of the fly, I have taken the liberty of sending it to you. A day or two before sowing, put the seed into a sieve and tub of clean water, and rub it quite clean through the sieve, changing the water once or twice; dry it in the sun under a wall or glass, or before a fire. A little flour of brimstone may be mixed with the seed while still damp. If the egg of the Turnip fly is committed to the soil with the seed, this is an effectual preventive.—*A. B.*

On Storing Turnips.—The most approved and now generally adopted method of storing turnips in Roxburghshire, is as follows:—The turnips, deprived of their leaves and roots, are laid in oblong heaps, sloping up on both sides to a point, like a potato-pit, and the outside ones packed close together, and a smooth uniform surface formed. The heap is then covered with dry straw to the depth of about 13 inches, which is secured and bound down by straw ropes. Turnips stored in this way generally keep well, and are scarcely ever touched by frost. Should it be late in spring before they are used, they are generally somewhat sprouted, but much less so than if they had been putted in the earth. Of course the length of the heap will depend on the quantity of turnips. The breadth is generally about 10 or 12 feet. Swedes are now generally stored in November or December.

Pea-straw.—At a lecture of the Rev. Mr. Sidney, at Acle, Norfolk, the rev gentleman drew attention to the waste of Bean and Pea-straw. It was cut too late. He gave the analysis of each as to nitrogen and gluten, which showed that 74lbs of Pea straw, and probably of Bean-straw also, equalled in nutriment 100lbs. of common hay—a fact most important for farmers here, and well known in Scotland.

Fermentation in Manure-Heap.—When a piece of paper, moistened with spirit of salt, or muriatic acid, held over the steams arising from a dunghill, gives dense fumes, it is a certain test that decomposition is going too far; for this indicates that ammonia is not only formed, but is escaping.—*Smith's Productive Farming.*

Parsnips.—The cultivation of the parsnip resembles that of the carrot in every essential point. The land should be prepared as stated last week for the carrot. Especial care should be taken in this, as in that case, to have a deeply-cultivated soil. In the Channel Islands, where this root is largely grown, it is customary in the preparation of the land to use the large trance plough, and bury the manure—20 tons per acre of stable manure—12 or 14 inches deep. This is, of course, only practicable on deep soils, and it is on such, whether light or heavy, that this root flourishes. Parsnip seed may be damped, mixed with sand, just as in the case of the carrot, and drilled early in April at the rate of 4lbs. per acre, in rows on the flat, 18 inches apart. New seed only should be used. Colonel le Couteur informs us, in the journal of the English Agricultural Society, that seed sown in 1838 would not vegetate in 1840, though soaked and sown in a greenhouse. The damping of the seed, though we have advantageously adopted this plan in the case of the carrot, for the last three years, is to a certain extent hazardous. Seed thus sprouted, if sown on a dry soil, is liable to be deprived of life. After having been thus treated, it must not be sown till the land is damp. The summer culture of the parsnips is just the same as that of the carrot. An average weight of from 9 to 11 tons per acre is obtained of it in Jersey. We have not had much experience in the field culture of this root, but we are inclined to think that however superior it is to the carrot in quality, i.e. per cwt., the superiority in the weight of the latter crop render the parsnip inferior to it per acre. It is most excellent food for cows, imparting a rich flavour to the milk, and it possesses extraordinary feeding properties when given to either oxen or pigs. It should be steamed for the latter; and when thus treated it is nourishing food for poultry also.—*Agricultural Gazette.*

Prevention of Smut in Wheat.—At a late agricultural meeting in Sussex, England, John Ellman, Esq., related the following account of an experiment in preventing smut in wheat. He took four sacks of smutty wheat, sowed one sack of it with brine only, as strong as he always made it, to bear an egg as large as a shilling; he sowed another with lime only; he sowed the third sack with brine, strong enough to bear an egg, and then let it lay in lime all night; and the fourth he sowed without any thing. The result was as follows: Where the brine only was used, every now and then there was a smutty ear, still not many; where the lime only was used, there was much about the same quantity of smut; where the lime and brine were used, there could not be found a single smutty ear; and where nothing was used, it was a mass of smut.

Effects of Deepening the Soil.—The Liverpool *Times* gives the following fact, illustrating the beneficial effects of loosening the soil to a considerable depth: "There were exhibited at the Exchange News Room two enormous specimens of the red beet, or mangel wurzel, grown by Mr. Robert Neilson, in a field on his farm at Halewood. Each of them weighed upwards of 20 lbs. They were not merely curious in themselves, but remarkable proofs of the effects which may be produced on vegetation by the deepening of the soil, for the ground which produced these gigantic roots would certainly have produced double the quantity of potatoes, or of turnips, or of ordinary sized beets, usually grown on an equal extent of land. They show that by deepening the soil, an amount of produce maybe got from it much greater than any one has yet thought it possible to raise."

An Economical Polish Beverage.—Into sixty quarts of water put three ounces of elder flowers, five pounds of common brown sugar, and a quart of vinegar, and one of brandy; infuse them for three days, stirring them once every day. This beverage, which is mentioned in the "Agricultural Journal of Aix," is quite as agreeable as beer, and costs ten times less.—*Rev. Mr. Hort.*

[From the American armer.]

WHAT IS THE PROPER FOOD OF WHEAT?

This is a question much easier asked than answered; for though it has been mooted at intervals from the earliest introduction of the wheat culture, it never has been satisfactorily answered, and we question very much, whether it ever will be, so as to render the solution of it generally available; but still we may be able to form something like an approximate opinion through the aid of the laws of analysis. By resorting to these, we find what are constituent elements of the wheat berry, and hence the inference is that if we can apply substances to the soil containing these elements, of a soluble character, that we will approach as near as is desirable to furnishing the appropriate food for the wheat plant. The next questions to be considered relates to the quantities of the several kinds to be applied to the acre? How far climate may operate to facilitate or retard their solution? It is plain that before the rootlets can take up food of any kind, that it must be reduced to a liquid or gaseous form, and it is equally plain that this condition of the papulum, from which they derive their support, can only be brought about through the agency of heat, air, and moisture, as while all vegetable bodies must undergo decomposition, so must these of a mineral nature be reduced by the dissolving action of water. As connected them, even with the proper quantities, if the proper kinds of manures could be asertained, the seasons and the climate exert most potent influences; either for good or evil, in the growth of the wheat, or any other kind of vegetable production; hence what might prove salutary one year, would be otherwise another. But let us consider now of what wheat is composed. By the analysis of *Springle*, a thousand pounds, or say, 16 2 3rds bushels of wheat, leave

Of Potash,	2 25 lbs.
Of Soda,	2 40 lbs.
Of Lime,	0.96 lb.
Of Magnesia,	0.90 lb.
Of Alumina with a trace of iron,	0.26 lb.
Of Silica,	4.00 lbs.
Of Sulpturic acid,	0 40 lb.
Of Chlorine,	0 10 lb.
	11.27 lbs.

Thus then, if this analysis be accurate, and Springle's reputation is guaranty that it is, the inference is a fair one, that, as the above constituents are to be found in the *Berry* of the wheat plant, the soil should be provided with each and all of the substances enumerated, either in greater or lesser proportions, in order that the preparation of the food of the plant might be going on In every soil alumina (clay) and silica (sand) are always present, and form the greater quantity of the latter found by analysis, as a constituent element, we should infer, that notwithstanding wheat is said most to delight in clay soils, still that sand is indispensible to the fructification of the grain. We know that unless there be a sufficiency of *Potash* in the soil to dissolve the silica, and yield it to the plant, that, as a natural consequence, the stem will lack that ingredient essential to enable it to stand erect, and from the evidence afforded by the analysis, we should conclude, that ashes, potash, and lime are indispensible to the successful culture of wheat, and that salt would be found to be a valuable auxiliary; nor should we apprehend so much dread as is indulged in by some, if the lime used were of the magnesian kind.

It may be said, that because we find these various substances in wheat, that that is not conclusive proof it derives it exclusively from the soil. We admit this supposition most freely, inasmuch as we are satisfied, that a very sensible portion of the food of plants is derived from the atmosphere, and that this portion is as well appropriated by the leaves as by the roots; by the latter process the most, when by the organic remains, or mineral manures used, the powers of absorption, retention and assimilation, the soil have been accelerated to activity. From the presence of sulphuric acid, we should take it for granted that plaster is almost as essential to wheat as it is to clover. We are aware, that this opinion will not be considered as orthodox by a very large description of farmers, who will tell you, that plaster increases the straw but decreases the grain. Now we are not sure that this opinion of theirs is well founded, if after the use of plaster such result may have been produced, may it not have sprung from other causes than the use of plaster? May not the weather, an excess of rain, or nutritive manures have produced the result, and not the plaster? If the *theory* of the action of plaster, which strikes us as most rational be the true one, its most essential office is to *husband* and dole out gaseous food, according to the wants of the plants, rather than to stimulate them by improvident and too luxurious feeding. If this were not the case, we should think that the minute quantity required for an acre, would not answer the valuable and wonder exciting purposes that it does. If its office, of itself, were merely stimulative, its effects would be less manifest and less lasting, nor would those effects be visible beyond a single season; hence we infer, that, besides its *direct* agency, it exerts an *indirect* one, as a *caterer*, if we may so express ourselves, still more important. Again, those who deprecate the use of plaster *directly* to the wheat crop, do not hesitate to use it on clover, and turning that in with the after-math, to grow wheat on it. Why then, if *plaster* exerts so unfavorable an influence when applied as above first stated, is it then sown on the clover that the wheat escapes the assigned injury? This is a question as difficult of solution, as is the one with which we began this article; for as the plaster requires many hundred times its own body of rain to dissolve it, it must necessarily continue its action through several seasons and successive crops.

We have thrown out these remarks merely as suggestions, in the hope that the question of—"What is the proper food of wheat?" may draw out some able correspondent, whose knowledge, observation, and experience may enable him to throw light upon the subjet.

SPECIFIC MANURE FOR SPECIFIC PURPOSES.

Many farmers snppose that all manures are similar in their nature, and have the same effect upon plants, whatever may be the structure, design, or use of those plants. Most farmers are unwilling to believe that any thing is manure, except what may be of animal origin. We have long labored to convince them of the fallacy of this idea. As long ago as 1832, in an addres delivered before the Kennebec County Agrtcultural Society, we ventured to hold the following language, which an honest old *farmer told us, afterwards*, did very well *"for a flight"* but he did not think much of it *in practice*. "If you want a large, succulent growth of any thing, use animal manures *plentifully*. If you want to raise pumpkins, squashes, or roots, grass, or any thing which is naturally pulpy and succulent, animal manure is the ingredient necessary. But wheat is by nature very different in its structure and composition from those. You want a comparatively hard, flinty straw, and you want a full and hard, flinty, dry kernel. Lime, alkalies, and such substances, are the proper meterials to produce such crops."

We were pleased to find that Mr. J. E. Teschemacher—a practical and scientifice Horticulturist of Boston, in experimenting upon manures, and especially upon Guano, the manure which is now brought from the coast of Chili, and is exciting much attention—has come to the conclusion that particular manures are adapted to promotion of different parts of the plant. That if you wish to grow foliage and stem, *certain manures* will effect it. If you desire seed only, other kinds must be used in greater *quantities* then the other. In a very instructing communication which he has published in the last (April) number of Hovey's Magazine of Horticulture, speaking of the action of Guano on the growth of various plants and fruits, he says:—It seems to me highly probable that certain manures are particularly conducive to a luxuriant growth of stem and foliage, while others are peculiarly so to the production of numerous and filled seeds."

He then goes on to state, in general terms, that those manures which contain ammonia and akaline matter, or the *nitorgenous* manures, are chiefly instrumental in producing stem, leaves, &c., while the phosphates of lime, of Magnesia, and the sulphurous compounds, all of which exist in those seeds useful as a manure to promote the production of them, and while the former are first necessary to fit the plant with proper and strong organs for developing the seed and for supplying these phosphates, &c, it must be some where in the soil or supplied by man, or the seed will not fill, and be so full of the essential amount of the true material. We see this result oftentimes in many crops. We recollect that no longer ago than last year, we listened to the remark which one farmer made respecting the crop of another. Farmer A. had planted a certain piece of land, for ten years in succesion, to Indian corn. It was a warm piece of land, and he put on a good dressing of manure from his barn windows. His brother remarked to us, one day, as the corn was coming up, that A. would have a good crop of stalks, 'but now mind what I tell you, his ears of corn will have *plaguy long snouts* when he comes to husk them." We had the curiosity to examine the corn in the fall, and sure enough, there were but very few ears filled out over the end—they had *"plaguy long ears."* Indian corn we all know, begins to fill at the bottom of the ear, and if there be the proper kind of matter in the soil and plant, to fill the whole ear out it will continue to fill, kernel after kernel, until it is filled over the end with sound corn, unless as is sometimes the case in our latitude, the season is not long enough to allow the filling process to go on until all are filled. This man had, by his good supply of animal manure, always made a good show, and obtained stalks and husks in abundance; but he had robbed the soil of other food, such as phosphates, &c., and did not know that it was necessary to supply them. It is thought that Guano possesses the ingredients necessary for both stem and foliage, and for the seed too, if it be properly applied.

We hope that Mr. T. and others will be enabled to go on with their experiments, and devolope facts which are needed, and which will be so valuable to farmers in a practical point of view.

It is probable that the science of *manurecology* will become so perfect, that any part of a plant can be so stimulated as to be grown to excess, by the proper application of the right manure. For instance, if you want all leaves, or big flowers, you can have them. If you want all seed, and but little foliage, you can have it, by only knowing a little more of the nature of the plant cultivated, and the material to be applied.—*Maine Farm.*

FOOD FOR COWS.

We would commend the following article to the careful perusal of our readers, as it embraces a topic of great practical importance. With those familar with the writings of M. Chabert, and his exalted character as a scholar, any commendation on our part, would of course appear superfluous.

M. Chabert, the director of the veterinary school of Alford, England, had a number of cows which yielded twelve gallons of milk every day. In his publication on the subject, he observes that cows fed in the winter on dry substances give less milk then those which are kept on a green diet, and also that their milk loses much of its quality. He published the following receipt, by the use of which his cows offered him an equal quantity and quality of milk during the winter as during the summer:

Take a bushel of potatoes, break them whilst raw, place them in a barrel standing up, putting in successively a layer of bran, and a small quantity of yeast in the middle of the mass which is to be left thus to ferment during a whole week, and when the vinous taste has pervaded the whole mixture, it is then given to the cows, who eat it greedily.

We have been promised a communication on this subject by a person to whom we casually mentioned the views of M. Chabert, and who has had some experience of late, as regards the process he commends. Experiments of this description are much needed, at this day, and we are glad that there is *one* among us, *if no more*, who is disposed to make them, and favour us and the public with the details.—*Maine Cultivator.*

MANURE—COMPOST.

Manure is virtually the farmer's capital; the bank, if we may be indulged the expression, upon which he can alone draw for those important and essential accommodations without which his industry and economy in other matters, will be of little or no avail. There is not a farmer in New England whose resources in this particular, are not amply abundant, and whose farm, might not in a short time, be brought to almost any degree of productiveness the owner could reasonably desire. Nature has provided, by a wise economy, that nothing which has once been inspirited with the energizing indentifying principles of life, shall be worthless in the great work of perpetuating and nourishing its kind. But it is not simply to the animal and vegetable kingdoms, that the farmer is to look for the means of enriching his soil The various mineral substances embedded in, and constituting, to a certain extent, the surface of the soil upon which we tread, are endued with certain distinctive and emendatory properties which render them efficient assistants in the labor of improving and enriching our fields. Even the hard and compact substances of flint, is capable of yeilding upon decomposition, a principle essential to the growth and nutriment of plants; while the various mineral substances of our common field and gardens, are capable when commingled in proper relative actions, either of weight or measure, of evolving principles not only highly beneficial to the health of plants, but indispensably necessary to their successful development and growth. In the formation of compost manure, one thing, however, is indispensible, and this is that we attend strictly to the nature and constitutional character of the soil to which it is to be applied. If it be of a clayey, or argillaceous texture, the basis of the compost intended for its amelioration, should consist principally of sand. But if, on the contrary, it be of a sandy or calcareous character, the compost shou'd be mostly of clay Soils that are naturally *humid*, should have such alterants applied, and in such quantities, as will bring them to a proper consistency, while those that are arid and liable to injury from too rapid descent or evaporation of water, must be modified by the application of such remedial agents, as will tend to confer unctuosity, and prevent the possibility of injury from such a cause.

The most tenacious clays, and the most barren sands, may, by the application of such materials as tend to modify their obvious defects, be made wonderfully productive.—*Maine Cultivator.*

VENTILATION OF COWHOUSES.

Every one knows that pure air is necessary for respiration, and that air on being used by the lungs is expelled in a deteriorated condition, and rendered unfit for being again inhaled. If, therefore, cowhouses are not properly ventilated, the air becomes foul from the respired air, as well as, perhaps, from impure exhalations, and the air so deteriorated is rendered unfit to maintain health. In the neighbourhood of large towns, too, there is another predisposing cause to disease, viz., the unnatural forcing of a cow's milk by a too liberal supply of brewer's draff. Fresh supplies of air, that the blood may be purified, are essential objects of a respiratory apparatus, and if the blood that goes to the lungs is returned to the system in the same state as it is sent, death will be the consequence, for venus blood is poison to the body. It does not often happen that imperfect ventilation produce immediate death, but it is too often the real cause of inflammation, fever, and deadly distempers.—*Correspondent of Mark Lane Express.*

Cure for Cancers.—A gentleman who has for years been afflicted with a cancer on his face, informs us, that after having followed the precriptions of some of the most skillful physicians, at the expense of more than seven hundred dollars, having twice had it cut, he has been effectually cured by simply bathing it three or four times a day with brandy and salt Those afflicted with these virulent ulcers will do well to try it.—*Maine Cultivator.*

[From the Massachusetts Ploughman.]

AGRICULTUAL MEETING AT BOSTON.

Colonel Jaques, of Charlestown, was entitled to the floor. We had not room last week to finish out our report of the Colonel's remarks, and we here insert them. He spoke of the danger of suffering bulls to run at large and of the ease with which they could be prevented doing mischief;—he said many lives had been lost by these animals; that they could be tamed by putting a ring in the nose; and he had done this in three minutes to one that was six months old; then they may be handled with ease. If they are turned out to pasture, he said they ought to be blinded. This he had done by tying a board, two feet long and three inches wide, in front of the horns, and then fastening a leather apron to the board, cutting the apron three cornered, and bringing it to a point at the nose.

Colonel Jaques said this would be no injury to the animal and he would never attempt to fight or to gore any one while this hood was on.

In speaking of diseases to which cattle are subject, he said he once had a cow that gave him twelve quarts of milk per day, as late as November; but she suddenly fell away to two quarts. He felt of her horns and found them warm; he slit her tail, cut off a piece, and rubbed spirits of turpentine between her horns. He then gave her *half a pound of brimstone mixed with half an ounce of saltpetre*, put a piece of garget root in her dewlap near the bosom, as a rowel, and gave her a warm mash, and he very soon restored her to health.

He said cold water should never be given soon after calving. Col. Wainwright once applied to him to see what was the matter with his cow; she had calved, and he thought she would die. Col. J. went to see the cow, and he at once suspected what was the cause of the trouble. He suspected she had drank too much cold water. He addressed the Irishman who had the care of her, and charged him with neglecting to give her drink enough. "Oh, yer honer, said the man, but she drunked three buckets at one time!"

He choose to let the calf draw milk from the cow for three or four months—he thought they would become cows one year sooner than if kept poorly on porridge or slops.

He spoke of the famous Oaks cows that was bred in Danvers by the Rev. Mr. Oaks. Her calf was killed off in May and she made after that 431 pounds of butter during the season. He thought no animal could be found that would eat a poor man so much; and he did not doubt that a whole race might be found, in time, equal to this cow; but we keep cows that all the feeding in the world would not bring up to this product.

As to feeding cattle, Col. J. thought if meal was to be given the hay should be cut up, but if no meal was to be mixed with the cut food it would not pay cost to cut the hay. He once kept 30 cows and gave them one bushel of bran per day, mixed with cut feed, one third English hay, one third coarse hay, and one third straw. He had seen cows that were ruined for milk by eating too much Indian meal. He knew the history of a cow that had been fed with half a peck of meal per day, and in a short time the quantity of milk which had been very great was nearly dried up. The famous Oaks cows was another instance. After having made the large quantity of butter named above, she fell off in consequence of eating too much meal, and gave but very little milk. Col. J. bought this cow afterwards of President Quincy, the elder, and endeavoured to recruit and restore her to her former state; he turned her out to pasture one whole summer and let her have no meal; but he never could bring her back again—she was spoiled for milk.

He had a high opinion of wheat bran as a remedy for dyspepsia in cows. As to difficulty in calving in consequence of the preponderance of weight in the male, there never would be trouble if good shaped animals, *with small bones* were selected. Cows, too, with large heads and horns, would be small in body, and in the pelvis. He recommended halter breaking of calves at one or two days old—when this is well done you may approach them at any time in the field. He strenuously recommended *kind treatment*; he said all would not be made tame like a spaniel; but all *will remember* good treatment; and they never forget when they have been ill used—their memory is very strong.

Col. J. spoke highly of the Normandy breed of horses, a cross which gives us the Morgan horses He thought this the best breed for all work—he will go to meeting, to mill, and to market; and he has all spirit enough for any higher service He said we should be very particular in the use of language—never saying *whoa* when you do not mean to have the horse stop. Be uniform, use the same word always for the same purpose. He can so train a horse that he may be stopped by a word when his bits or reins are broken.

Mr. Monson said he had been in the practice of fattening cattle for a long time. Many farmers have an idea that if cattle are often removed to new pastures they will fatten better than when kept steadily in one lot. He had tried the plan to his satisfaction and he was well satisfied *that it is not a good plan* to shift cattle from pasture to pasture. He had practiced shifting them once in two or three weeks through the summer; but he found that they gained more fat and tallow when kept *through the whole summer* in one pasture than when they were shifted. Even in autumn he said they would lay on more fat in a good summer pasture than in what is called fall feed or rowen.

The Editor of the ploughman stated that this was agreeable to his own experience, and that he would prefer letting his cows run in one pasture to shifting them into three or four—that even if he could have his lots so divided that the cows could be turned into a new one daily he would not do it. When they have the whole run they have a sufficient bite of the new daily growth which is sweeter than any other. That cows which are admitted in September into the mowing fields will not dwell there long when they have liberty to go back into the summer pasture also, provided there was a proper supply in that summer pasture.

LIME FOR PLUM TREES.

Messrs. Editors:—The late discussion at an agricultural meeting in our State House, concerning the efficacy of salt in preventing the attacks of the Curculio upon Plum trees, has reminded me of a few experiments, which I have recently made on this subject. These experiments have not been sufficiently numerous to justify a general conclusion; but I should like to know if others have obtained similar results.

Previous to 1841, several of my plum trees had been so attacked by these insects, that I scarcely obtained a ripe plum. Early in the spring of that year, as soon as the blossom buds began to swell, I removed the soil around the tree to the depth of two or three inches, as far on all sides as the limbs extended. I then deposited in the opening a layer of lime, recently slacked and still warm, about half an inch in thickness. The soil was immediately restored to its place over the lime, and closely pressed down upon it. I had an abundant crop of well ripened plums. In the spring of 1843, I again applied lime in a similar manner, and, with the the same success.

In the Autumn of that year, it was stated in some Agricultural Journal, that salt sprinkled around the tree in sufficient quantities to render the ground *whitish*, would prevent the ravages of the Curculio. In 1843, I made the experiment. The trees blossomed well, and showed an abundance of fruit; but every plum was attacked by this insect and fell to the ground.

I intend to apply the lime again the present spring; and if I obtain a good crop of ripe plums, my confidence in this remedy will be strong.

Yours respectfully, P. C.

Brunswick, Me., March 23, 1844.

The above experiments of Professor Cleveland, of Bowdoin College, may prove to be valuable to horticulturists, in enabling them to guard against the most formidable enemy of a valuable and delicious fruit. We hope that others will try the experiment, and we shall be pleased to learn the result.

It is a pleasing consideration to cultivators that those gentlemen who are distinguished not only in our own but in foreign countries, for their deep

researches and attainments in those sciences that are intimately connected with agriculture, and its kindred branches, are directing their intention to agricultural improvements, and thus applying science to the most useful practical purposes. Every operation in nature, by which the farmer produces his crops, and rears and fattens his animals, is strictly in accordance with the natural sciences, and the more these are understood by cultivators, the lighter will be their labors, and the greater their success.—*America Farmer.*

AYRSHIRE COWS.

Mr. Randall, Chairman of the committee on Ayrshire Stock, made the following report to the American Institute last Fall:—

Mr. President and Gentlemen,—Your committee have very imperfectly attended to the duty assigned them by you, last evening, and offer as an excuse, that a portion of them have been occupied by a very arduous task among the cattle on the show ground, as judges on stock. They are prepared, however, from the limited knowledge they have of the Ayrshire breed of cattle, and from the best information they have been able to procure, to offer the following as their report:—

"The Ayrshire cows are of medium size, their average living weight about eighteen hundred and ninety pounds. Their peculiarities are as follows:—

"They are low in the leg, and fine in the bone, with a round and capacious barrel, rather heavy in the hind quarter—straight on the back—the neck and head very light—the neck well set on—no dewlap—horns small, short and clear—the tail very small—a true taper in the barrel from the back rib to the shoulder—fore quarters light—the udder an oblong square, rounded off on the lower part, and running far forward—their teeth small and well spread; they are a very hardy race of animals, with good constitutions, and when dry, disposed to take on flesh quickly. Your committee are of the opinion that the Ayrshire breed of cattle *stood unrivalled as a dairy breed,* and will give a better return in milk and butter, for the food consumed, than any breed of cattle now known.

"It is a fact well established that the beef of the Ayrshire breed will sell in the Glasgow and Edinburg market for one penny per pound more than that of any other breed.

"Your Committee have, from their own knowledge and from information from such sources as can be relied on, ascertained that the average quantity of milk from common Ayrshire cows is from twenty-two to twenty-six quarts per day. There are thousands of cows in the western counties of Scotland that will give thirty quarts per day, and very many that will give thirty-six quarts per day, and some go as high as forty two quarts. The Ayshire, when in full flow of milk, require to be milked three times in each day, and they require great care for two or three days before calving, lest the udder be too much crowded by the new flow of milk. Your committee have known fifty-six quarts of milk drawn from one Ayrshire cow, in about forty-eight hours, immediately before calving.

"All of which is most respectfully submitted."

FOOT-ROT IN SHEEP.

Caution.—While your readers attention has been turned to the disease of foot-rot in sheep, when either house-fed or kept in a damp situation for any length of time, I would beg to offer a caution to shepherds, and others looking after the animals, when so affected. If any of the matter of foot-rot come in contract with a sore or abraded surface on the hand or other part of the body of a person tending the animal, it is apt to produce a voilent inflammation and rapid mortification of the part,—a disease termed by medical men gangrenous inflammation. A shepherd in this neighbourhood nearly lost his life from this cause lately; and the disease was only arrested by burning out the whole affected part. The mode of treating sheep when labouring under foot-rot here, is to clean the parts diseased, and apply the strongest nitrous acid carefully with a straw, or glass rod. This very soon conquers the disease. Those animals affected with the complaint should be immediately separated from the rest of the flock, as treading in the same footsteps will spread the disease from the tainted to the free.—*J. L., Newburgh.*

Age of the Sheep.—The age of sheep may be known by examining the front teeth. They are eight in number, and appear, during the first year, all of a size. In the second year, the two middle ones fall out, and their place is supplied by two new teeth, which are easily distinguished by being of a much larger size. In the third year, two more small teeth, one from each side, drop out, and are replaced by two large ones: so that there are now four large teeth in the middle, and two pointed ones on each side. In the fourth year, the large teeth are six in number, and only two small ones remain, one at each end of the range. In the fifth year, the remaining small teeth are lost. In the sixth year, the whole begin to be worn; and in the seventh, and sometimes sooner, some fall out and are broken.

CURE OF SWENEY.

As soon as you discover the disease—which will be known by noticing the horse while standing after use, and it may be seen even in the stall, he will sustain the weight of the body on the opposite limb, and put forward the limb of the affected side, permitting it to touch the ground but lightly, limps when hurried down hill, the muscle upon the shoulder becomes thin, and in many instances the skin contracted and tight,—put a twist upon his upper lip, and introduce the small blade of a common pocket knife, (the point of which must be sharp,) into the thinnest part of the shoulder, which will be near the upper margin of the shoulder blade, and push it directly in until you reach the bone, holding the knife as you would a pen when writing, and scratch up the membrane that covers the bone for a space the size of a silver dollar; the knife may then be withdrawn, and after the small quantity of blood that follows is wiped away, the orifice will not be seen. The knife may then be introduced in one or two places below the first, and used in the same way, and the operation is over. This may be repeated in six or eight days: we have seldom found it necessary to repeat the operation more than twice or thrice, and in many cases a single operation will effect a cure.—*Southern Cultivator.*

POINTS OF A GOOD HORSE.

By Col. Jaques, of Mass.

Col. S. Jaques' Remarks on the Prominent Points to be observed in the selection of a Useful Horse, more particularly for a Roadster.—I prefer a lightish head, neatly set to the neck, the neck rising promptly and strong from the shoulders and withers, and somewhat crowing or curving at the top, tapering to the head with a strong crest. Shoulders well laid in, spreading well back, something like a shoulder of mutton. Chest deep and a little projecting. Withers rising moderatly high and inclining well into the back. If the withers are low and flat on the top, the horse will be inclined to plunge to the ground, and when fatigued will stumble or fall. Neither must the withers rise too high, as he will then appear as though on stilts, both extremes are serious impediments to fine and safe action. Ribs should be well rounded out Back straight and short, well coppled, that is, the hips well thrown forward, forming a strong loin, and giving a long lever from the point of the hip to the hock joint of the hind leg. The horse should be a good length from the point of shoulder to the extreme point of buttock. Dock strong, and well covered with hair. Close and snug immediately under the dock. The muscles on the inner part of the thighs should be full and well shut together. If there is a large cavity under the dock, the horse will be inclined to scour, and is probably only a door-yard horse.

The neck, head and body form a lever, resting on the fore legs as a fulcrum, the head being at the end of the lever. If the neck be very long and the head heavy, or if the neck be quite short, and the head short and light, either of these extremes very much affects the regular clips and action. The whole machine should be of good proportion.

The fore arm is a very important lever, as regards the safty of a roadster. The legs should be clean and free from blemish, and when in motion move true, and free from cutting or wabbling. The feet should be round and steep; heels broad; coronet and posterns of medium length. Shank or cannon, broad and flat, showing the tendons or sinews. The knee large and well dropped down; the arm above the knee long, and the muscles large and full. The top of the shoulder when matched, to the withers should not be so heavy-loaded with muscle as to impede their action. No objections to the fore feet moving pretty close, but not so as to cut

Much depends on the form of the hind leg and the power of that lever, as regards strength and speed. The shank, hock and thigh should be broad and flat, something like that of an ox; and if so when in motion will operate like a plank sprung edgewise and then let fly. If the hind legs when at good speed open and spread a little, on objection, providing there is a good free action in the hock joint.—*N. E. Farmer.*

(From the Maine Cultivator.)

COB MEAL.

Messers. Editors:—I noticed some time since an article in your paper—editorial, I think—in which it was urged upon farmers to *grind their cobs,* as the meal was valuable for many purposes on the farm—particularly for poultry, hogs, and stock.

On the strength of this suggestion, I "acted," and can now assure you, so well satisfied am I with the result, that my cobs will never, as heretofore, be "*uselessly thrown away.*" As I grind my cobs with the corn, I cannot speak definitely as to the value of corn meal when used in its pure and unmixed state, but I am satisfied that there is a very important saving attended by economizing cobs in the manner you direct. I have, during the last three months fed corn and cobs to my horse, cattle, hogs, and calves, and as I have a large stock this winter, and have, thus far fed them wholly on the products of my farm the saving to me, from this simple suggestion has I assure you, been of no small value as regards the *purse.*

Yours, ECONOMIST.

GRAFTING GRAPE VINES.

The late Mr. N. Herbement, of South Carolina, a succesful cultivator of grape vines, after referring to the usual modes of grafting fruit trees says:—

"But let vines be grafted in this manner, unless the operator knows the particular requisite for the vine, and the probability is that he will scarcely succeed once in five hundred trials. The mode of grafting, which I practice usually, and which is attended with no difficulty, and very seldom fails, is as follows:—All I do, is to take away the earth round the vine, to the depth of four or five inches; saw it off about two or three inches below the surface of the ground; split it with a knife or chisel; and having tapered the lower end of the scion in shape of a wedge, insert it in the cleft stock so as to make the bark of both coincide, (which is perhaps not necessary with the vine;) tie it with any kind of string, merely to keep the scion in its place; return the earth to its place, so as to leave only one bud of the graft above the ground, and the other just below the surface, and it is done."

Grafting Cement.—One part of tallow, two parts of bees-wax, and three parts of resin. Melt the whole then turn it into cold water and work as shoemaker's wax. These proportions form a compound that will not run in a hot summers's sun, nor crack in a winter's severest cold.

Warts on Cows' Teats.—Mr. Jonathan Perry, of Dover, tells us that lamp oil will kill warts on cows—apply it several days in succession. If other farmers find this effectual, they will oblige by sending additional testimony.

TORONTO HORTICULTURAL SOCIETY.

It seldom falls to our lot to record so splendid a display as the one under notice. The specimens of flowers, vegetables, and fruits exhibited were of the choicest kinds, and the whole performance was highly creditable to the parties through whose instrumentality it was mainly got up, and to the gardeners, gentlemen, and others who have aided in establishing this Association.

The Toronto Horticultural Society already numbers on its subscription-list upwards of three hundred names, and the subscriptions range from five shillings to a pound each, and we are happy to add, that there are very many gentlemen who, in their liberality towards this cause, have gratuitously subscribed the latter sum. An effort will be made, during the present summer, to double the number of subscribers, which the managing committee confidently expect can be accomplished, with a trifling exertion on the part of each of its members.

There will be two other exhibitions this season, of plants, flowers, vegetables and fruits, the first of which will take place about the 10th of July, and the third and last for the season about the 10th of October.

We are authorised to state, that the July exhibition will take place at the *Government House*, and that the one for October will be held on the grounds of the *St. Leger Race Course*, which will be held on the day, and in connection with *The Grand District Agricultural Show*, which will take place on the above grounds, on the 9th and 10th days of October next.

We have had some conversation with the principal gardeners of this city upon the prospects of the July exhibition, who assure us, that, if the day be favorable, it will be the most splendid performance of the kind that has ever taken place in the North American Colonies. There can be no question but that the professional and amateur gardeners will do their part in making the necessary preparations for the coming Exhibition; and, from the liberal manner in which the Society has already been supported, and the past exhibition been approved of and applauded, we have every confidence in stating that the enlightened, patriotic, and public-spirited citizens of Toronto, of all classes, shades, and parties, will be ready and willing, when called upon, to do theirs.

The first exhibition of this Society took place in the City Hall, on the 22nd of May. About one o'clock the public were admitted by ticket. The Brass Band of the 82nd Regiment were in attendance, and added much to the gaiety of the scene by their musical performances. The Hall was crowded to excess by ladies and gentlemen who seemed highly delighted with the exhibition. The display of plants, fruits, and vegetables, (some of which were sent by amateurs) was very creditable to all concerned

The following is a list of the prizes awarded by the Judges:—

Best Exotic, No. 39, Cactus Jenkinsonia, Mr. Fleming, cultivator.

Second best Exotic, No. 44, Orange, John Logan, cultivator.

Best Exotic, No. 50, Indian Rubber plant, W. B. Jarvis, Esq., amateur.

Second best Exotic, No. 60, Lemon, W. B. Jarvis, amateur.

Best collection of Geraniums, No. 41, Mr. Fleming, cultivator.

Second best Geraniums, No. 40, Mr. Fleming, cultivator

Best twenty four Geraniums, No. 47, W. H. Boulton Esq., amateur.

Best collection of China Roses, W. H. Boulton, Esq., amateur.

Best six Tea Roses, No. 45, John Logan, cultivator.

Best twelve Greenhouse plants, No. 61, W. H. Boulton, Esq., amateur.

Twelve Greenhouse plants, No. 41, Mr. Logan, cultivator.

Best collection of Pansies, No. 35, Wm Burns, cultivator

Second best collection of Pansies, No. 36, Wm Burns, cultivator.

Best collection of Pansies, No. 17, W. H. Boulton, Esq, amateur.

Strawberries, only prize, Mr. W. Williamson.

Best twelve Table Apples, No. 5, John Granger, cultivator.

Second best twelve Table Apples, No. 34, John Granger, cultivator.

Best twelve Table Apples, No. 63, Mr. Wm. Burns, amateur.

Second best twelve Table Apples, No. 61, W. B. Jarvis, Esq., amateur.

Best twelve Cooking Apples, No. 6, John Granger, cultivator.

Best twelve Cooking Apples, No. 62, W. B. Jarvis, Esq., amateur.

One brace Cucumbers, No. 51, John Lambert, cultivator.

One brace 2d best Cucumbers, No. 50, John Lambert, cultivator.

One brace Cucumbers, No. 65, W. B. Jarvis, Esq., amateur.

Best fifty heads of Asparagus, No. 41, Mr. Fleming, cultivator.

Second best fifty heads of Asparagus, No. 7. John Granger, cultivator.

Best fifty heads of Asparagus, No. 19, G. W. Allan, Esq., amateur.

Best dish of Sea Kale, No. 53, Wm. Burns, cultivator.

Second best dish of Sea Kale, No. 29, Wm. Burns, cultivator.

Best dish of Sea Kale, No. 56, T. G. Ridout, Esq., amateur.

Best twelve stalks of Rhubarb, No. 30, Wm. Burns, cultivator.

Second best twelve stalks of Rhubarb, No. 10 John Granger, cultivator.

Best twelve stalks of Rhubarb, No. 20, G. W. Allan. Esq., amateur.

Second best twelve stalks of Rhubarb, No. 66, W. B. Jarvis, Esq., amateur.

Best twenty-five Radishes, No. 46, John Logan, cultivator.

Second best twenty-five Radishes, No. 11, John Granger, cultivator.

Best twelve heads of Lettuce, No. 12, William Margeson, cultivator.

Second best twelve heads of Lettuce, No. 13, Wm. Margeson, cultivator.

Best twelve heads of Lettuce, W. B. Jarvis, Esq., amateur.

Best peck of Spinage, No. 43, Mr. Fleming, cultivator.

Second best peck of Spinage, No. 26, G. Stattle, cultivator.

Best peck of Spinage, No. 18, G. W. Allan, Esq., amateur.

Three best heads of Cabbge, No. 2, John White, cultivator.

Three second best heads of Cabbage, No. 3, John White, cultivator.

Kidney Beans, No. 68, W. B. Jarvis, Esq., amateur.

Best peck of potatoes, No. 1, John White, cultivator.

Second best peck of Potatoes, No. 56, John White, cultivator.

Best Potatoes, No. 69, W. B. Jarvis, Esq, amateur.

Best dish of Mushrooms, No. 54, Mr. Tapscott, cultivator.

Second best dish of Mushrooms, No. 22, W. Daniels, cultivator.

TIME FOR SPREADING MANURES ON GRASS LANDS.

A correspondent asked our opinion as to the most proper time for spreading manures over grass grounds?

We are decidedly in favor of spreading in November in preference to any time whatever in the spring season. We commonly lose a large part of our manures when we spread them at any time on land that has long lain in grass. But as there are many natural meadows that cannot be easily ploughed, we dress them by an application on the surface.

Many farmers near Boston spread manure on their grass fields as late as May; and if the month holds rather dry they find but little benefit from it. Within our own observation there are instances of such spreading which has positively proved detrimental to the harvest. In a wet season it will operate better; but almost any kind of application in the spring is apt to come in the way of the scythe and of the rake.

The best time is November, when the application is less liable to dry up or evaporate. Much loam or other matter should always be mixed with manure that is to be spread on the surface of mowing lands.—*Mass. Ploughman.*

KANAWHA SALT REGION.

Extraordinary Discovery in the Manufacture of Salt.—Several months since we stated that a remarkable phenomenon had occurred on the Kanawa, by which the natural gas coming up with the salt water had been used as fuel to boil the water. In the following article, which we extract from the Kanawa (Virginia) Republican, it will be seen that this process has been carried still further, and that this phenomenon is now one of the most extraordinary natural developments of modern time—*Cincinnati Chronicle*:—

Kanawha Salt Region.—We have said before that the subterranean wounders of Upper Kanawha Valley were not half explored, and every day proves that there are not only mysteries but treasures of wealth of which the preceding generation had no conception. When a year or so ago, Mr. Tomkins turned out the gas that forced up water under the kettle to aid in converting the brine into salt, thereby saving one half of the fuel, it was thought to be a vast stride in march of improvement and discovery; but now Messrs. Wrath and England, at their new furanee, have actually attained the Irishman's desideratum in the proposed purchase of two stoves—*they save all the fuel.* The gas has sufficient power to force a column of water three inches in diameter from the depth of a thousand feet to the height of about fifty feet above the surface of the earth. It is then turned under the furnace ignited, and boils the water till it is brought to the state for chrystalization, and then conveyed to the cisterns, and produces the heat that carries on the process of evaporation. Thus 350 bushels of salt of the first quality are made per day, without one particle of other fuel than the gas. At these works but one cistern is yet erected, and they are able to use only one half of the water that is forced up; another is in progress of erection; when completed, all the water will be used, and 70 or 80 barrels of salt manufactured daily, without coal, wood, or the rays of the sun.

To Kill Flies in a Cheese Room or Elsewhere.—Cheese rooms are frequently kept closed and darkened to keep out the flies, as the dairymaid says. Mr. Livesay asserts that this practice, ruinous to cheese, may be avoided by occasionally boiling a pennyworth of quassia chips in a point of water, sweetening it, and placing it on plates about the room. It will destroy all the flies that taste it. Cheese, he says, being animal matter, cannot have too much air.—*Cultivator.*

CATTLE SHOW OF THE HOME DISTRICT AGRICULTURAL SOCIETY, UNDER THE PATRONAGE OF HIS EXCELLENCY THE GOVERNOR-GENERAL.

The Home District Agricultural Society will hold a GRAD AUTUMN FAIR AND CATTLE SHOW, at the St. Leger Race Course, adjoining the North-Western extremity of Toronto, commencing on the morning of the second Wednesday of October next.

The first day will be appropriated to examination of Live Stock, Dairy Produce, Root Crops, and Grain. The 2nd day will be devoted to the examination and trial of Agricultural Implements and the inspection of articles of Domestic Manufacture, the reading of Original Essays, and the Sale and Exchange of Stock, &c. &c.

The amount appropriatated for premiums is about £150, and the awarding Committees or Judges are to be selected from the Agricultural Societies established in the Niagara, Gore, and Newcastle Districts; and, to return the compliment, the Home District Society purposes to furnish Judges, when required, to the Societies above mentioned.

The parties who will be entitled to compete for prizes are the members of the District Society, and also the members of the Township Societies established in the Home District. A trifling entrance-fee will be collected at the gate, from all who enter the show-ground, in order to assist in defraying the contingent expenses of the Exhibition.

At the close of each day's performance, a plain, substantial, cheap, and well-served collation will be in readiness, on the ground; after which, a number of appropriate speeches will be delivered, by gentlemen who have promised to attend from other Districts.

The place of exhibition, arrangements, premiums, and the unparalleled liberality of admitting the members of the Township Branch Associations to a participation in the benefits of the Exhibition, in common with the members of the District Society, we are certain, will ensure a full attendance, not only from the inhabitants of the Home District, but also a liberal attendance from the friends of Agriculture in other Districts.

It is confidently expected, by gentlemen fully competent of forming a judgment in these matters, that this Exhibition will be by far the most creditable performance of the kind that ever took place in British America.

We have not room to further dilate upon this, to us most interesting topic, and shall conclude by announcing to the public the list of prizes, which were proposed and adopted at the last quarterly meeting of the District Society, which which took place in the Court-House, in the city of Toronto, on the 15th ultimo:—

For the best Essay on the profession of Agriculture as a Science,—A Gold Medal, to be worth £3 0 0. The Essay to be sent in to a committee to be appointed on the next regular day of the meeting of the District Society, to be held on the second Wednesday in August next.

Second best do.—A Silver Medal, to be worth £2 0 0.

For the best cultivated and well managed farm, in the Home District, taking in view the land, stock, and produce, with all the appendages. A Gold Madal, to be worth £3 0 0

Second best do.—A Silver Medal, to be worth £2 0 0.

CATTLE.

	£.	s.	d.
Best Bull 3 years old and upwards	3	0	0
Second best do. do do	2	0	0
Third best do do do	1	0	0
Best cow 3 years old and upwards	2	0	0
Second best do do do	1	10	0
Third best do do do	1	0	0

YOUNG CATTLE.

Bulls of two years old and under.

Best	1	0	0
Second best		15	0

Heifers two years old and under.

Best	1	0	0
Second best		15	0

YOUNG HORSES.

Best Horse under 3 years old	1	10	0
Second best do do	1	0	0
Best Mare do do	1	10	0
Second best do do	1	0	0
Best Horse under 2 years old	1	10	0
Second best do do	1	0	0
Best Mare do do	1	10	0
Second best do do	1	0	0
Best spring colt or filly	1	0	0
Second best do do		10	0
Best yoke of fat cattle	2	0	0
Second best do do	1	10	0
Best Brood Mare	2	0	0
Second best do	1	0	0
Best tup of any breed	2	10	0
Second best do do	1	10	0
Best 3 Ewes	2	0	0
Second best do	1	10	0
Best six fed Sheep	2	10	0
Second best do	2	0	0
Best Boar	2	0	0
Second best do	1	10	0
Best Sow,	2	0	0
Second best do	1	10	0

FARMING IMPLEMENTS.

Best iron or wooden Scotch Plough manufactured in the Home District.	1	10	0
Second best do do do	2	0	0
Best subsoil Plough manufactured in the Province	2	10	0
Second best do do do	2	0	0
Best Fanning Mill manufactured in the Home District	2	10	0
Best Cultivator or horse hoe	1	5	0
Best Drill Barrow	1	5	0
Best portable Thrashing Machine, not requiring more than two horse power and capable of thrashing at least 100 bushels of wheat in a day of 12 hours	6	0	0
Second best do do do	3	0	0
Best Straw Cutter	2	10	0
Best Clover Machine	2	10	0
Best flax and Hemp Dressing Machine (portable,)	6	0	0
Best Horse Rake	1	5	0
Best Ribbing Plough	1	5	0

DAIRY.

Best sample of 50 lbs of Butter	2	10	0
Second best do do do	1	5	0
Best 100 lbs of Cheese	2	10	0
Second best do do do	1	5	0

DOMESTIC MANUFACTURES.

Best pair of Woolen Blankets manufactured in the District	1	0	0
Second best do do do	0	10	0
Best 10 yards of Frieze Cloth	3	0	0
Second best do do	2	0	0
Best Woollen Carpet (50 yards)	3	0	0
Second best do do	2	0	0

AGRICULTURAL PRODUCE.

Best sample of Flax of not less than 112 lbs	3	0	0
Second best do do do	2	0	0
Best sample of Hemp not less than 112 pounds	3	0	0
Second best do do do	2	0	0
Best pocket of Hops	2	10	0
Second best do do	1	5	0
Greatest quantity of Hops grown in the Province, and exhibited in the City of Toron to for sale on the second day of the Exhibition	5	0	0
For the greatest quantity of Broom Corn, grown in the District and exhibited as above	2	10	0

GRAIN AND SEEDS.

Best 2 bushel of Fall Wheat	1	0	0
" " Spring Wheat	1	0	0
" " Barley		10	0
" " Oats		10	0
" " Pease		10	0
" " Caraway Seed		15	0
" " Hemp Seed		15	0
" " Flax Seed		10	0

ROOT CROPS.

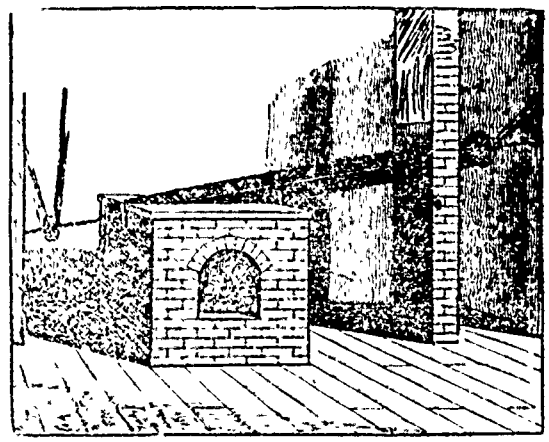
Best 8 Bushels of Potatoes		10	0
" " Turnips		10	0
" " field Carrots		10	0
Best 50 roots Mangel Wurtzel		10	0
Best 8 bushels field Parsnips		10	0

FIELD CROPS.

Best acre of Fall Wheat	2	0	0
" " Spring Wheat	2	0	0
" " Potatoes	2	0	0

HOW SCHOLARS ARE MADE.

Costly apparatus and splendid cabinets have no magical plougher to make scholars. In all circumstances, as a man is under God, the master of his own fortune, so is he the maker of his own mind. The Creator has so constituted the human intellect, that it can grow only by its *own action*, and by its own action it most certainly and necessarily grows. Every man must, therefore, in an important sense, educate himself. His books and teachers are but helps; the work is his. A man is not educated until he has the ability to summon, in case of emergency, all his mental power in vigorous exercise to effect his proposed object. It is not the man who has seen most, or who as read most, who can do this; such an one is in danger of being born down, like a beast of burden, by an overloaded mass of other men's thoughts. Nor is it the man that can boast merely of nature vigor and capacity. The greatest of all warriors that went to the siege of Troy had not preeminence because nature had given him strength, and he carried the largest bow, but because self discipline had taught him how to bend it.—*Daniel Webster.*



REVOLVING DRYING KILN.

PUBLISHED MONTHLY.

W. G. EDMUNDSON, Editor and Proprietor; to whom all Orders and Communications must be addressed, Post-paid.

TERMS:—One Dollar per Annum, payable invariably in advance. TERMS TO AGENTS:—15 Copies for $10; 40 Copies for $20.

PRINTED for the Proprietor, at the EXAMINER OFFICE, by THOS. CUTTELL.