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OFFICIAL SERIES.

THE FARMERS' JOURNAL,

AND

Transactions of the Board of Agriculture

OF

LOWER CANADA.

VOL : XII. FEBRUARY, 1860. NO. 6.

CONTENTS.

(General.)

FARMERS' JOURNAL.—(*Editorial Matter*;) Application of the Sciences to Agriculture; Grazier and Breeder; Poultry Yard; Rural Architecture; Enquiries and Answers; Foreign Agricultural Intelligence, Obituary, and Critical Notices, &c.
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N. B.—Communications received before the 15th of each month will appear in the ensuing Number.

*"O! fortunatos nimium, sua si bona norint,
Agricolos! quibus ipsa, procul discordibus armis,
Fundit humo facilem victum justissima tellus"*
VIRG. GEO.

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FEBRUARY, 1860.

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TRANSACTIONS OF THE BOARD OF AGRICULTURE FOR LOWER CANADA.

- The application of steam power to the cultivation of the soil, and the Forces used in Agriculture
- The Forces used in Agriculture
- The progress and profit of the steam plough

F E B R U A R Y.

This is the month when the farmer finds most leisure ; but much can be done about the buildings, and in laying plans for the future, besides the necessary attention at all times bestowed upon the stock of all descriptions. Care should be taken to prepare machines, implements and tools against the spring—so that not a moment may be lost when the working season comes round. Due ventilation should be preserved in the feeding-houses, as this is of great importance towards preserving the health of the stock :—cattle should be kept under shelter, and warm bedding supplied to them in plenty—as this will actually ensure a saving in fodder. Care must be taken to guard the cellerage against frost. Select and store away seed of all kinds, making exchanges with others holding approved varieties when necessary. Give cows about to calf an ample supply of food, and plenty of room besides. Prepare and draw cedar for fencing. Give warm food and shedding to your hogs. Feed cut hay and carrots, if you should have them, to your horses, and take care to protect them against cold. Many valuable horses at this season, through carelessness, contract incurable diseases. Feed grain and roots to your sheep in lambs, and keep them in separate warm and sheltered pens. House your poultry in warm situations, giving animal food to keep up a supply of eggs during the season. Lime and pounded oyster shells, or bones should be supplied to enable them the more perfectly to form the shell. Cart out your manures to the portion of ground on which it is to be used, placing it in large heaps, and on an eligible and well selected spot ; but, if under cover, it may be left untouched until the latest practicable moment. Your whole stock of machines, implements, tools, waggons, carts, harness, should be thoroughly examined, repairs effected, and, if possible all should be done within a work shop on the premises, to save waste of time in repairing to the carpenters, &c. More time is sometimes spent in journeying to smiths or carpenters, than in repairing the damage at home.

In the garden but little can be done, with the exception of preparing materials for making hot beds, attending to cold frames, collecting manures, repairing tools, &c., but everything should be done to facilitate the progress of operations in the coming busy season. Much space is often lost for want of arrangement. Your kitchen garden should be mapped out carefully, and every bed and plot marked off for the different kinds of vegetables to be grown upon it, so that there may be no hesitation or delay when the spring opens. Collect bean poles and peabrush, now that the swamps are accessible, admit air to the cold frames on

every suitable occasion, Root grafting of young trees may be attended to by placing them in boxes of sand or earth in the cellar. Manure may be brought out to the spot where it is to be used, if the surface should be extensive. Air may be admitted to the greenhouse, taking care that the temperature is kept above the freezing point—range from 35° to 60°. Camellias in full bloom require daily syringing and watering—guard against the red spider. If neglected in autumn, cuttings may now be put in of Verbenas, Petunias, Heliotropiums, Calceolarias, Fuchias. Fumigate when necessary. Tie up the flower stalks of Hyacinths, Narcissus, Gladiolas and other bulbs. Repot plants requiring more room. Take care in the hot house to put on the shutters at an early hour at night, to guard against the effects of frosty winds, removing them at sun rise in the morning. Admit air regularly, when practicable. Bring forward bulbs, to keep up a succession. Be attentive about washing and syringing. Regulate the heat as evenly as possible, and according to individual wants. Guard against insect pests—especially the red spider—using the syringe and fumigation. Do not allow snow to remain on the shutters any length of time. The whole house should be daily syringed thoroughly, watering in the morning—placing evaporating pans filled with water, in different parts of the house. The weather has been of late variable and unseasonable.

J. A.

We are glad to observe that Hon. Judge Mason of Iowa, who made himself so popular with the Inventors of the Country while he held the office of Commissioner of Patents has, we learn, associated himself with Munn & Co., at the Scientific American office, New-York.

IMPORTANT DISCOVERY.

Rev. Mr. Seeley, formerly of Springfield, Mass., now in Paris, communicates to the Springfield Republican the interesting particulars of a promising discovery in France for purposes of Health, Agriculture and Surgery:—

This discovery, made by Messrs. Corne and Demeaux, and thus far known as "Corne and Demeaux's Disinfecting Powder," or as the "French Disinfecting Powder," is as simple as its results promise to be important. These gentlemen, in the course of some experiments, ascertained that a simple mixture of the ordinary plaster of Paris and coal tar (which is produced by the distillation of coal for gas) has very powerful anti-septic properties. The proportions of the ingredients are, one hundred parts of the plaster of Paris, to from one to three parts of the coal tar; and the mixture to be thoroughly made with a mortar and pestle, or in a hand mill, or by such other method as the quantity desired and the means of the operator may dictate.

The process cannot be very difficult, since the article fully prepared is sold in Paris for about ten cents per pound. It is used for disinfecting, or anti-septic

purposes, some of which I will indicate. For preventing the disagreeable odor of sinks, &c., the effect is instantaneous, and it is much cheaper than chloride of lime which must entirely fall into disuse. Two lbs. of the powder are sufficient to dissolve in twenty-two gallons of water; or a table-spoonful dissolved in $1\frac{3}{4}$ pints of water is sufficient per day to render inodorous the refuse of a household of four or five persons. A morsel, the size of a pin's head, will render limpid and fit for use a pint and a half of water, which is beginning to become putrescent. The value of such a discovery for those who travel in the East, and especially for ships at sea, cannot well be overstated.

But it also has an important relation to agriculture. One half a pound of powder, dissolved in five or six gallons of water and sprinkled on the litter of a stable, will deprive one cubic yard of manure, of all odor and prevent the loss of its fertilizing qualities. It was on this feature of the case that I thought you might easily institute experiments, and if successful, you will not fail to see what a boon such a discovery must prove to all those farmers who comprehend the necessity of preserving in the best possible condition, and making the best possible use of all the fertilizing materials produced on the farm. It is probably no exaggeration to affirm that tens of thousands of dollars are evaporated every year from the exposed and smoking manure heaps around the barns and out-houses of the Massachusetts, farmers. If there be any virtue in this alleged discovery, coal tar enough to prevent all this waste is furnished by any gas establishment in the State. Every farmer is wont to use plaster, more or less, on his land. Let him apply a small portion of it in the form and manner here suggested, and its usefulness will be much more certain, in all cases, than at present.

But the relations of the discovery, which are regarded with most interest in France, just at present, are those which it sustains to surgery. It is claimed that applied as an ointment (made of the mixture) or in the simple form of a powder, to severe wounds, and sores, to cancerous ulcers and to suppurating abscesses, it instantaneously deprives them of all odor, and brings the wound into such a state that the ordinary healing applications act successfully.

Doctor Velpau, has reported to the Imperial Academy of Medicine, expressing high approbation of it as a dressing for wounds. Immediately after this report, the suggestion was made that it might be of great service to the wounded of the army of Italy. Accordingly it was tried at the hospitals at Milan by direction of Baron Larrey, physician in chief to the Emperor. I give a translation of a brief report on the subject, made to Marshal Vaillant, major general of the army in Italy, by the surgeon, Dr. Cruvellier, under whose eye the experiments were made:

"Conformably with your order, and following the instructions left by Dr. Larrey, the powder of coal tar has been employed in the hospital of Milan on the wounded in whose wounds the gangrenous process, or hospital suppuration had commenced. The first applications of the remedy, both in powder and as an ointment, were made on the 1st of August. The immediate results were very favorable, and the disinfecting properties of the topic were verified in the cases of more than twenty patients who were treated by different physicians.

"Still further it has proved that under the influence of this preparation and of good living, the wounds, being disinfected, are then modified, and in a few days the greater part of them present a greatly improved appearance. The application of the disinfectant is not omitted till the wounds, restored to a normal condition, are able to feel the action of the medicaments usually employed to promote the healing process. Twenty observations made in the hospitals in Milan, put these conclusions beyond all doubt."

From the foregoing may be learned what appears to be the general opinion among the French surgeons as to the effect of the mixture on wounds though there has been some difference of opinion as to whether the powder is or is not strictly to be regarded as a disinfectant. That it is a powerful anti-septic, no one doubts, and time will discover whether or not it also possesses disinfecting properties.

CONDENSED MILK.

The Hartford, Ct., *Homestead*, gives a detailed description of a "milk-factory," which a Mr. Borden, has put in operation "in one of the wildest gorges of the Litchfield hills."

"The long and short of the whole process is, that fresh milk is received night and morning, and condensed to one-fourth its original bulk by evaporation, and in this shape, that is, looking like very thick cream, it is sent to market, requiring to be diluted with as much water as has been removed from it, to be as perfect and excellent milk as it was at first, and in fact, a little better, as we will explain: the cost in market is 25 cents per quart, or $6\frac{1}{4}$ cents for a half pint, which by the addition of three half pints of water will make a quart of milk decidedly better, more healthy, and less watered than the milk bought of milkmen in our cities; and capable, after being diluted properly, of answering all the purposes of the best milk. The cream will rise as usual, and butter may be made, and the milk will show itself possessed of all the properties of fresh milk."

The writer regards it as a most valuable discovery,—a saving of three-fourths of the expense of transportation is made, and the milk thus prepared remains sweet so long that it may be sent from Connecticut to New York or Boston, and arrive in a condition to keep longer than milk fresh from the cow.

CASHMERE GOATS.

An importation of these valuable animals has been made by the Hon. W. H. Stiles, and after a tedious voyage has arrived safely at his place up the river, having been accompanied by a Greek, who is still with them as an attendant, all the way from Smyrna. This is the second importation of the pure breed of Cashmere goats ever made into this country; the first having been made by Mr. Davis, who sold them to Mr. Richard Peters, of Atlanta, from which importation all the crosses and half breeds in this country have sprung. Mr. Stiles has eight of them, and they are no less curious than valuable, something of the size and shape of our native breed. They differ widely in their hair, which grows so luxuriously as to give them the appearance of a sheep with an immense fleece on it. The experiment having been thoroughly tried as to their thriving in our climate, and resulting satisfactorily, there can be no doubt of the value

they will be to our country. The uses to which the hair is put are numerous.—Camlet and worsted goods and ladies' fabrics, as challies, muslin delaines, gentlemen's clothing for summer wear, hosiery, &c., promising a beauty, strength, durability, lustre and permanency of color far superior to the wool of the sheep or the alpaca.

These goats are found in the Himalaya Mountains, and have to be brought about a thousand miles before they reach a shipping port. They are not sheared like the sheep, but the fleece is pulled off twice every year. All ordinary fleece weighs between three and four pounds; the New York price is \$8 50 per pound—making \$51 a year for each goat; while there is no cost in feeding them, for they are as frugal and hearty as the common goat.

Their great value in this country is the splendid cross with our common goat, the half breed being nearly as valuable every way as the full breed, and their remarkable fecundity soon repays every heavy interest on the investment, while the expense of keeping them is a mere trifle, as they live on briars and foliage not touched by other animals. There is a great demand for them, and the prices they bring are fabulous; one buck sold as high as \$1500; and one of Mr. Peters's stock was sent to the Illinois State Fair for exhibition, and so pleased the President that he offered the weight of the animal in silver in exchange for him.—Savannah Republican December 25.

JOHN CHINAMAN AS AN AGRICULTURIST.

In the eyes of the Chinese, human excrements constitute the true substance of the soil, (so Davis, Fortune, Hedde, and others tell us,) and it is principally to this most energetic agent that they ascribe the activity and fertility of the earth.

Except the trade in grain, and in articles of food, generally, there is none so extensively carried on in China as that in human excrements. Long, clumsy boats, which traverse the street canals, collect these matters every day, and distribute them over the country. Every Coolie, who has brought his produce to market in the morning, carries home at night two pails full of this manure on a bamboo pole.

The estimation in which it is held is so great that everybody knows the amount of excrements voided per man, in a day, month or year; and a Chinese would regard as a gross breach of manners the departure from his house of a guest, who neglects to let him have that advantage, to which he deems himself justly entitled, in return for his hospitality.

In the vicinity of large towns, these excrements are converted into poudrette, which is then sent to the most distant places, in the shape of square cakes, like bricks. For use, these cakes are soaked in water, and applied in the fluid form. With the exception of his rice fields, the Chinese does not manure the field, but the plant.

Every substance derived from plants and animals is carefully collected by the Chinese, and converted into manure. Oil cakes, horn and bones are highly valued; and so is soot, and more especially ashes. To give some notions of the

value set by them on human offal, it will be sufficient to mention that the barbers most carefully collect and sell, as an article of trade, the somewhat considerable amount of hair of the beards and heads of the hundreds of millions of customers, whom they daily shave. The Chinese know the action of gypsum and lime; and it often happens that they renew the plastering of the kitchens, for the purpose of making use of the old matter for manure.

No Chinese farmer ever sows a seed of corn before it has been soaked in liquid manure diluted with water, and has begun to germinate; and experience has taught him, (so he asserts,) that this operation not only tends to promote the growth and development of the plant, but also to protect the seed from the insects hidden in the ground.

During the summer months, all kinds of vegetable refuse are mixed with turf, straw, grass, peat, weeds and earth, collected into heaps, and when quite dry, set on fire; after several days of slow combustion the entire mass is converted into a kind of black earth. This compost is only employed for the manuring of seeds. When seed time arrives, one man makes holes in the ground; another follows with the seed, which he places in the holes; and a third adds the black earth. The young seed, planted in this manner, grows with such extraordinary vigor that it is thereby enabled to push its rootlets through the hard, solid soil, and to collect its mineral constituents.

The Chinese farmer sows his wheat, after the grains have been soaked in liquid manure, quite close, in seed beds, and afterwards transplants it. Occasionally, also, the soaked grains are immediately sown in the field properly prepared for their reception, at intervals of four inches from each other. The time of transplanting is towards the month of December. In March the seed sends up from seven to nine stalks with ears, but the straw is shorter than with us. I have been told that wheat yields 120 fold more, which amply repays the care and labor bestowed upon it.

It is quite true that what suits one people may not on that account suit all countries and all nations; but one great and incontrovertible truth may, at all events, be learned from Chinese agriculture, viz., that the fields of the Chinese cultivator have preserved their fertility unimpaired and in continued vigor ever since the days of Abraham, and of the building of the first pyramid in Egypt.*

This result, we also learn, has been attained solely and simply by the restitution to the soil of the mineral constituents removed in the produce; or what amounts to the same thing, that this has been effected by the aid of a manure, of which the greater portion is lost to the land in the system of European (and American?) cultivation.

—*Liebig's Modern Agriculture.*

* Vessels of Chinese porcelain are found in the pyramids, of the same shape, and with the same characters of writing on them, as on modern China at the present day.

MANGEL WURZEL.—VALUABLE HINTS AS ECONOMIC MANAGEMENT.

THE Mangel Wurzel is so valuable a root that hardly anything connected with its growth can fail to be a matter of interest. We, therefore offer no apology for the insertion of the following record of experiments upon Mangels made during the present year, to which we shall append some remarks upon the general condition of this year's crop deduced both from our experiments and from observations upon field examples. We have before placed on record the important fact that Mangels deprived of any of their green leaves whilst in a growing state are curtailed in their root development in proportion to the amount of leaf injury; still we are so repeatedly asked questions both by students and farmers relating to the possibility of feeding from the leaves and growing a crop of roots at the same time, that we have experimented several times in a manner similar to that which has now to be related, in order both to test the soundness of our daily teaching. In April of the present year we sowed two of our experimental plots with Yellow Globe Mangel, depositing the seed in ridges but without manure. The plant on coming up was thinned and hoed in the usual way, and in the middle of August the one which appeared the best plot had each plant stripped of its large outer leaves, an operation which was repeated in the middle of September, and again in the middle of October. In the other plot the plants were left intact.

On the 27th October the topped and tailed roots were weighed, and the result will be gathered from the following :

TABLE I.—Results of the Stripped Mangels.

	Weight of Single Root		Circumference of single root
	lbs. oz.	lbs. oz.	Inches.
6 largest roots	10 10½	1 8	12
6 smallest do	3 9	0 8	
9 remaining do	10 1		
21 roots	24 4½		

TABLE II.—Results of Intact Mangels.

6 largest roots	27 4½	5 8	19
6 smallest do	11 7	1 4	
8 remaining do	22 10		
20 roots	61 5½		

Here then we see the immense preponderance of root growth of the unstripped, over the stripped root, and from it we deduce the following important conclusion : *That as long as a Mangel leaf, is in a fit state to be wholesome or useful as food for cattle, so long is it important to the wellbeing of the root.*

All our experiments upon this subject have tended to the same conclusion ; and indeed, the effect of taking away a few leaves from a growing root is so quickly made manifest, that on comparison with others we have more than once been quite unprepared for the result. In the case before us the last stripping in October could have had but little effect, as the frost so soon followed and stopped the growth altogether, so that the wide difference in the production of the two plots has been in reality caused by two strippings. It will further be remarked that in the best plot the crop is not large ; in fact the average of the neighbouring field cultivation has afforded roots considerably larger than our best specimen. This difference is easily accounted for in the fact of the absence of manuring in our plots whilst in the field good farmyard dung and superphosphate were plentifully employed.

It will be noticed that our crop was gathered on the 27th October, four days after the late severe frost, which on the 23d registered 12o of freezing, and we are enabled to state that they were little affected by the frost. This may arise partly from the cause suggested in a late Number, viz., the partial shelter afforded by the leaves to the then standing roots ; but still we incline to the belief that another cause was active in producing the difference observed in this respect between these and the field crops which have been very seriously damaged, and that is—that our plants in the experimental plots were less artificially stimulated. Our own observations certainly lead to the conclusion that with roots of all kinds, and especially with Mangels, inordinate and over stimulated growth tends to a delicacy of constitution easily affected by external causes, and so tending to disease and premature decay ; for if to be too lean on the one hand or too fat on the other be signs of want of perfect health in animals, it is especially so in plants, whilst in the one as in the other the tendency of high breeding is to a constitutional enervation.

If in the case before us we look at the natural history of the Mangel, we shall find that it is derived from a wild native plant, the *Beta maritima*. BENTHAM says that “the white and red Beets or Beetroots of our gardeners and the *Mangel Wurzel* (*Root of Scarcity*) of our agriculturists are cultivated varieties of the wild Beet ;” and speaking of the rootstock he remarks that “the wild Beet has a short hard sotok of a few years' duration.” In fact the Beet in a wild state is perfectly hardy, and its rootstock stands winter after winter, yet in the garden the rootstock requires the most careful protection from frost, whilst year by year as the cultivation of the Mangel extends in the fields we find in it an increasing delicacy of constitution. We incline then to the opinion that, with Mangel as with Turnips, we should be satisfied with something less than the fullest amount to which this root can be developed, and look for a paying crop rather to the following circumstances,—*good form, uniformity in size, regularity in the rows,* and better keeping powers—conditions which we cannot help thinking will also result in a larger amount of feeding property in proportion to water ; but we await the analyses which we have reason to know are in progress upon Mangels by Professor VOELCKER for fuller evidence upon this point.

As regards the effects of the recent early frost upon the Mangel, judging from the appearance of our crop the day after they were touched so severely, and the present state of those left standing, we are inclined to think that great improvement has taken place. Many only slightly injured have recovered with the mild warm weather ; our directions, therefore, of last week are fully borne out, and we still think that a great part of this valuable crop may be well stored for the winter. We would, however, suggest great care in this operation, as the external leaves are rendered almost putrid, and in many merely the core of the stem is beginning to decay ; topping then should be done with even greater freedom

than usual. So again the wet weather will cause a quantity of moist dirt to cling about the rootlets, which latter will soon decay, and thus decay of the crop when in mass will be likely to be commenced. Our notion is, then, that Mangels this year should be cleanly topped and tailed, and afterwards left to get as dry as possible; and any circumstance which will tend to this result will not only cause a healing or callosity to the wounded surfaces we make in trimming, but will to a great extent have a like effect upon the scalded spots of the rootstock.

Finally, with respect to the much injured roots, we cannot help thinking that the frost-biting may have facilitated such changes as to induce premature ripeness, at least the affected roots that we have examined are much sweeter to the taste than the others; we should therefore employ them, and that as speedily as possible, without any fear of evil from want of ripeness. Our plan of dealing with them would be to give them to swine in a quantity, by which they would be turned into manure; and should any tendency to purging or any symptom indicating that disagreement which is not uncommon with a new kind of food appear, we would correct this by the addition to the wash of a little powdered *Fœnugreek seeds*, *Turmeric root*, *Gentian*, or any aromatic and stimulating substance of a like kind.

Again, we might suggest that carting these Mangels to a poor upland but dry pasture and thickly stocking with sheep would greatly enhance the value of the land, and we cannot but think that the sheep would do better than dragging in peached Swede lands.

EMPLOYMENT FOR WINTER EVENINGS AND STORMY DAYS.

FARMERS' OPPORTUNITY FOR MENTAL IMPROVEMENT.

With the majority of laboring farmers there is but little time left for intellectual improvement, after weekly papers are read, during a large portion of the year, perhaps from April to October or November; but the long evenings of the remaining part of the year, and the stormy and severely cold days of winter, when out-door labor is impossible or exceedingly unpleasant, afford opportunities for mental culture to every farmer, that should not be neglected. The value of these opportunities, if well improved, can hardly be over-estimated; yet, I fear their utility is poorly appreciated by many of our farmers. They are too often whiled away listlessly, resulting in no good, if not in positive evil, from habits acquired by idleness. I wish, simply, to remind those of my brother farmers who may need it, of the importance of these golden moments of leisure, and of what may be gained by a proper use of them. To young farmers, and to farmers' sons, would I especially direct the few words I have to say.

Seneca has remarked: "As the soil, however rich it may be, cannot be productive without culture, so the mind, without cultivation, can never produce good fruit." And if the soil will not produce good returns without some sort of cultivation, upon what known principle can we expect that the mind will come

into that state of improvement that will enable us to act intelligently in all the matters of our every-day business, without some kind of cultivation, without effort on our part to that end? While we labor in cultivating the soil the greater part of the year, that we may reap abundant harvests, during which time we necessarily find but a limited amount of time for study and reading, though excellent opportunities for reflecting upon what we may have already learned, and for putting the same to practical uses, why should we not eagerly seek, during the comparative leisure of the remainder of the year, for opportunities to improve the *mind*, the guide and director of all our operations?

Progress now seems to be the order of the day, in everything. We live in an age of inventions; in the age of steam and electricity; in an age when every one must be up and *stirring*, to keep up with his generation; and finally in an age when great improvements are made in every department of the arts, in a single generation. Improvements are made, and great improvements are to be made, in Agriculture; and the farmer, to keep up with his time, must keep thinking, as well as stirring. Agriculture is a vast subject, to which nearly all the Sciences minister. It is not merely to plow, and plant, and hoe, as our fathers planted, and plowed, and hoed, and to gather what chances to grow from such a course. Our lands in New England by exhausting methods of culture, are becoming poorer, the virgin soils, in a great many instances, have been cropped to excess, and it is our business, then, to study methods whereby we may not make them hold their present condition merely, but improve them. To this end I would counsel the study of standard agricultural books, in these spare moments; take and *read*, perhaps, another agricultural newspaper during these months, and think, and devise experiments to be put into execution the ensuing summer; not to any ruinous extent, however, should they prove of no economical value, but moderately, and *perseveringly*, and so add your mite to the general cause. Agricultural reports of States and counties are of great interest and importance, and should not be omitted in agricultural reading. I need not remind you of your duties and *privileges* in the "Farmers' Clubs."

Several of the natural sciences are so interwoven with agriculture, as geology, botany and chemistry, and perhaps I might add meteorology and mineralogy, that some knowledge of them is of great importance to every agriculturist; and this knowledge is more easily acquired than is imagined by many. It is not above the capacity of any; and every farmer's son who has improved the opportunities for a *good*, common-school education, should not rest satisfied till he has devoted the leisure he may find in one winter at least, to the careful perusal and study of works on one, or more, of these sciences, which, in all probability, must create a thirst for higher attainments. Some knowledge of these sciences is quite necessary to read understandingly some of our agricultural books and reports; and ten dollars cannot be better expended yearly, by the farmer, than in the purchase of agricultural books, and papers, and scientific text-books. Take botany, for instance, the present winter, and make that a speciality, procure "Wood's Class-book of Botany," or some of Prof. Gray's botanical works, and in your leisure, master as many of its principles and terms as you can; then as spring opens seize the first flowers and apply them; in the few spare moments that you can find in summer, make a collection of plants for a *herbarium*, and my word for it, if your nature is in any wise like that of the mass of people, the pleasures you will derive from the science will amply repay you for all the hours of patient study, and serve as an incitement to further exertion. But do not be too hasty in your anticipations; if in two or three years, with the time you would naturally get, you can seize upon any wild flower of the field, and readily analyze the same, you have accomplished not a little.

And in geology, also, careful reading, from time to time, will put you in possession of much valuable information, and be a source of great profit and pleasure to you. And so with chemistry; time and *perseverance* will put you on easy terms with its elements and technicalities. Much time, however, will be required to accomplish all this, and a good deal of *perseverance*. But the advice I have given I know to be wholly practicable; and the attainments I have mentioned I know to be within the reach of almost any farmer, young or middle aged, who *wills* to possess them; and, in time, even much more than this may be accomplished.

And just here let me say, do not spend too much time over a certain New-York "story paper," or similar publications—much worse than wasting time—when Nature is ready to reveal to her votaries truths so much stranger than fiction, and productive of such high and noble pleasures, and which may be rendered of much practical benefit.

History, biography, books of travels, and other departments of literature, as well as the topics of the day, should receive a share of the farmer's attention in this season of leisure. In our farming population there are not a few noble minds—minds that can appreciate whatever is beautiful that surrounds them, and are not insensible to the poetic charms of nature, that they come into contact with in their daily avocations; and I would say, every farmer's library should contain the writings of several of our best poets, and let *those* volumes, too, be well read.

Indeed, let not these long evenings go unimproved; they are the seed time of the mind, to New England farmers; and around their glowing hearths let refinement and intellectual culture find a place, and receive encouragement, as well as in the mansions of the anxious merchant and manufacturer. Let farmer's sons and daughters be educated, at academies and other public institutions of learning, if not too inconsistent with the farmer's circumstances, but at all events, let not the *home* advantages go unimproved.

•• A. A.

Springfield, Mass., Nov. 11, 1859.

THE TRUE OBJECT OF AG. JOURNALS.—Dr. LEE, in the *Southern Field*, well says—"The happiest life a rational man can lead, is one devoted to human progress and elevation. A mere money-getting machine is at best a low order of living mechanism. A Steam engine or water wheel can do that kind of work; but it cannot cultivate either intellect or morals. We strive to make Agriculture an *intellectual pursuit*; and in that behalf, all who *think and reason* about crops, the quality of land, its cultivation, domestic animals, manures, renovating plants, and farm management generally, are earnestly solicited to cooperate in a common effort to render agricultural thinking and reasoning the most fruitful of all human powers."

WOMEN AND FARMING.

What follows, below, is a portion of the remarks made by the Rev. A. L. STONE, of Boston, at the annual dinner of the Norfolk County Agricultural Society, in September last. No man knows better than Col. WILDER, the President of the society, what kind of men to call around him on such occasions,—and well was his careful attention to this point repaid; for at no similar gathering have we ever known so much said that was practical and encouraging, and at the same time so eloquent and beautiful.

President Wilder introduced his distinguished guest to the multitude before him, and after a few pleasant introductory remarks, Mr. S. said:

It is a pleasant surprise to me to find the agricultural interest represented by so many of the gentle and more domestic sex. And yet their presence on such an occasion I believe to be in every respect legitimate and wholesome. For their proper connection with this interest is intimate and vital. The original description or definition of a wife is that she is a helpmate to man. Just in what way, or in what variety of ways, this fitting help is to be rendered, that original document does not set forth. The practical answer exhibits its diversities so varied as never to repeat themselves. Sometimes this sphere of helpful fellowship is very much restricted, and again almost indefinitely broadened. The wife of the German farmer limits this sphere only with the boundaries of his estate. Her nursery is out of doors in the open field. Its canopy is the leafy shade. Its carpet the green turf or the soft brown mould. There her little ones roll, and tumble and sleep all day, while she keeps even stroke with her husband in the day's toil. On a day's ride in the diligence through a pleasant portion of Bavaria, I amused myself by jotting down the occupation of a dozen or so of ladies, as I met them in succession. The first two were equipped with the deep, unwieldy hoes of the country, and were hoeing potatoes on a hillside; the third was plodding along on the road barefoot, bare armed, &c., with a burden on her head that would have broken the back of a moderate sized mule; the fourth and fifth were swinging scythes with the regular action of the practiced farmer, one of them leading the procession and keeping well ahead. Of the succeeding three, one was raking by, one was pitching, and one sat on the top of a load, loading, while the only man of the group was driving the oxen. The next four were attendants upon house masons and were carrying bricks and mortar on their heads up tall ladders, with an ease of step and balance that argued them experts at their trade. I have seen women in that same country holding a plow, and in some instances assisting a dumb ally—I mean a four legged one—to draw the same agricultural implement.

I suppose that some of us should not exactly covet this style of female co-operation even in the stress of harvest season. But the question occurred to me here, whether there were not some sort of co-operation the wives and daughters of our farmers could render their lords in that calling and if so, what. Now I take it, it is the desire of every true wife to have at least an intelligent sympathy with her husband's calling. There is here and there perhaps one sustaining the relation of a wife, to whom it is enough to share her husband's revenue, leaving out his cares and toils as trifles not worthy her regard. There may be here and there a husband who se ambition is to keep his more delicate half in blissful ignorance of his out-of-door work,

whether plowing or financiering. But I suppose the old fashioned and better notion is that of reciprocal sympathy between these fellow-pilgrims.

I never would marry a couple, if I knew it, who had any other idea of the tie, no matter what the fee might be. And perhaps I may be permitted to add, that with right views on this point, I am ready to join any number of couples together with a trifling pecuniary proviso.

But if the sympathy of which I have spoken be an intelligent sympathy, it should take some pains to be informed. I believe that an agricultural literature—and we may say with just exultation that we have now an agricultural literature—is quite as healthful and stimulating a literature in the drawing-room as that which deals in fashion plates and love-sick heroines. I don't think it would be unwomanly, in short, for the wives and daughters of our farmers to be able to converse wisely and wittily upon agricultural topics, with their husbands and fathers, or with gentlemen visitors. Such a conversation might easily vindicate itself in contrast with the rapid frivolities making so much of the staple of drawing-room chat.

It would do no harm either for these ladies to have a general familiarity with the out-of-door pursuits of those to whom they are thus allied, even if that were gained by an occasional walk in the field, instead of a shopping excursion.

A visit now and then to the stable and the farmyard might save the fair explorer from such a blunder as happened once to a metropolitan friend of mine of the same sex. Being in the country, and smitten deeply with rural tastes, it occurred to her one morning that it would be quite romantic to play milkmaid. So she took a pail and went forth, but not meeting with any great success in the operation, it was discovered that she had made a slight mistake in regard to the sex of the animal she waited upon.

But let the ladies of our agricultural homes make those homes centres of intelligence, culture and refinement; let them feel and show a just and generous pride in the calling to which they are thus allied, and a disposition and ability to vindicate its true honor as compared with any other; let them give their rejoicing and sympathetic presence on such occasions as this; let the younger rank of these ladies place their delicate, soft hands for life as readily in the large, brown hand of the practical farmer as in the soft and whiter palm of a merchant's clerk or a professional aspirant.

The speaker said he could not look upon the farmer without regarding him as a heroic wrestler with nature. With him every season was a campaign, and every harvest a victory; and may God crown you all with a blessing, as you are already crowned with honors.

A sentiment in honor of the Judiciary was responded to by Judge Rockwell, of the Superior Court.

THE COMPREHENSIVE FARM RECORD.

We understand that C. M. Saxton & Co., 25 Park Row, New-York, have in press, a blank Record of the above title, which will be issued in January. It is to be a well bound folio volume of about 150 pages, with an explanatory introduction and a series of carefully prepared headings, arranged for entering every

date and event useful for reference upon the farm—the results of each particular crop, and of each field, and every item useful for record and reference concerning domestic animals. The book is ruled and arranged for entering the results of twenty-five years, (from 1860 to 1884 inclusive,) and will supply every want, as to the means of arriving at a direct and intelligent understanding of the profit and loss of the various departments of husbandry. It is prepared by Dr. F. B. HOUGH of Albany, whose labors upon the last State Census have necessarily rendered the subject of Agricultural Statistics entirely familiar.

LINSEED MEAL.

—Linseed meal I have found to be a great promoter of egg-laying. Mixed with scalded meal or shorts, or with sour milk, it is readily eaten, and is a good substitute for animal food and insects. Hens like Indian corn better than any other grain, and it is their cheapest food. For confining hens, a covered room with a dry earth floor, is much better than an open yard, which the rains keep in a filthy state much of the time. With sand to roll in, hens may be confined under cover the whole season. Half an hour before sunset they should be let out to range over the yard and garden. They will then be too busy picking grass, gravel, &c., to scratch and do mischief, being always in a hurry to return to the roost before twilight. Hens thus kept will more than twice pay for their keeping, if not too old to lay. Two or three days imprisonment in a coop will break up Black Spanish hens from sitting, and they soon commence laying if properly fed. It is only profitable for a villager to raise a few early chickens to renew his laying stock, as chickens are great and increasing feeders, eating when half grown, much more than old fat hens.

OSIER WILLOWS PROFITABLE WHERE NOTHING ELSE WILL GROW.

Land that is very wet, not susceptible of drainage, I think cannot be turned on any better account than to be planted with osier willows. They grow extraordinarily fast, and with every year the yield increases as the stools expand; and that without any trouble or expense, except the annual cutting of the crop.

A few years ago I set out several hundred cuttings that I obtained from a neighbor, and the increased yield induced me to set out all my wet land that could not be drained to advantage for grain or grass crops, with osier willows, which I am satisfied pay better than anything else that can be produced on such land.

Eight or nine feet in one year's growth is nothing extraordinary, and the number of sprouts from one stool in a single year, is surprising. I cut only a

few days ago from fifty to sixty from single stools, set only three years ago. It is said that several millions of dollars' worth of osier willows and willow work is annually imported, which might all be saved to our citizens, if they cared a little more for their own interests. Sets can be forwarded to any part of the country where railroads extend, since the establishment of the express enterprise, at low rates; so that almost any one having suitable ground can obtain cuttings. They grow without difficulty, forming permanent roots the first year, and a small crop. The second and third years crop will quite surprise the new beginner.

Besides what is said above of osier willows, they are also excellent for strengthening embankments, or mill dams, &c., by the numerous little roots which run to a considerable distance, forming a close matting in and on top of the ground, preventing the water from breaking through.

NEW UNFERMENTED BREAD.

There can be no doubt that the newly discovered aerated bread will prove a blessing to many, whose stomachs could not digest the ordinary bread raised by fermentation. It is now being regularly made and sold in London, and is eagerly sought after by a large class of people, to whom fermented bread had been prohibited by the doctors. The process of making the bread consists in forcing the ready prepared carbonic acid, by means of suitable machinery, into the water with which the dough is prepared, then mixing the flour, water and salt together, in a highly condensed atmosphere. From the mixing apparatus the dough is received into the baking pans, and passed into the ovens, without being touched by the hands. By this means the consistency in the flour is left both unchanged and uncontaminated—the loaf being accordingly absolutely pure bread.

Poultry Yard.

IMPROVEMENT OF POULTRY.

Every material improvement in the breed of animals, has originated in a certain degree of mania. "If rich amateurs had not lavished their money upon the turf," says an English writer, "we should never have had such good horses commonly available; and the same may be said of the Short-Horns, South-Downs, of prize sheep, and priceless pigs." We most assuredly assent to this, and gladly give our opinion that without "this promise of general usefulness," neither the exhibitions themselves would have received so large a share of pub-

lic support, nor would their promoters have been so anxious for their success. "Individuals there doubtless are, for whom the Fantail pigeon and the Lop-eared rabbit possess charms beyond the plumpest Dorking or the tenderest Poland; but how far are they in number when compared to those who encouraged the poultry exhibitions simply from a desire that twelve months hence eggs should prove better, chickens cheaper, and all poultry more abundant than ever."

We can see no reason why poultry should not be considered as a species of agricultural stock, and turned to as good account for both producer and consumer. More eggs, therefore, and more fowls of a better description, ought to be ultimately produceable; and this improvement ought to act on the market of the country. That there has been an improvement in the size is evident from the fact that a few years since dressed fowls brought to our markets would seldom weigh more than two and a-half to three pounds; now they will reach from four to five pounds. We speak now of the common farmers of the country; and this has been accomplished by crossing with larger varieties and better attention and care. When fowls were sold for so much a pair, it was no interest to the farmer to increase the size of his poultry, as a pair weighing only four pounds would command just as much as those of six or seven pounds. Now, since they are sold by weight, size tells the story. A fowl, without any specification of weight, is a very indefinite term, and since we cannot as yet see how fat fowls, in any way deserving that appellation, can be sold at three shillings the pair, we would ask whether he will object to pay from 10 to 12 cents per pound, according to the season, for his poultry, while his butcher's meat is from 14 to 18 cents for such pieces as he would wish to see on his table.

For good poultry there is always a sale, and where there has not hitherto been, they will supply one. The very fact that they are to be had of a good quality, will cause a demand to be made for them. In all our cities there is always a demand, and, like other provisions, there are different periods for different prices, and here it is that poultry shows how we might do much good in offering premiums for early maturity. Those who have facilities for rearing chickens in March, or even February, and take them to market in May, June and July, they cannot fail to receive a remunerating price. From two to three shillings per pair is a common price for chickens four months old; and we are not sure but the profit at this age would be greater than at any other. At this season, less than two shillings the pair would be ridiculously low.

For early spring chickens such prices are necessary, when the cost of production is duly considered; and this at once indicates the main point towards which the improvements of our agricultural societies should be directed—the combination, as nearly as may be, in one bird, of early maturity, hardihood of constitution, and excellence no less than quantity of meat.

The question then naturally arises, Which is the most profitable breed to keep? The answer must be, That which fats best at an early age at the least expense, and that which possesses those properties most valued for food. Where every article of food has to be purchased, and no range can be permitted beyond limited yards and enclosures, there must be sales at fancy prices, and great skill to remunerate the outlay; but wherever poultry has been kept as a regular item in the economy of a farm yard, or even a laborer's cottage, we fully believe that the Dorking fowls, properly managed, will justify our present opinion of their merits as layers, as also for their flesh. They have heavy compact bodies, well feathered, small bones, short legs, fatten quickly, and their flesh beautifully white. C. N. BEMENT. *Springside, N. Y.*

Ladies Department.

AMERICA'S NOBLEMEN.

The noblest men I know on earth,
 Are men whose hands are brown with toil ;
 Who, backed by no ancestral graves,
 Hew down the woods and till the soil,
 And win thereby a prouder fame
 Than follows king or warrior's name.

The workingmen, what e'er their task,
 To carve the stone or bear the hod—
 They wear upon their honest brows
 The royal stamp and seal of God !
 And brighter are the drops of sweat
 Than diamonds in a coronet !

God bless the noble working-men,
 Who rear the cities of the plain,
 Who dig the mines and build the ships,
 And drive the commerce of the main—
 God bless them, for their swarthy hands
 Have wrought the glory of all lands !

A PRACTICAL SYSTEM OF COOKERY.

BY AN AMERICAN HOUSEWIFE.

KNUCKLE-OF-VEAL SOUP.—Break and crush the bones of a knuckle of veal of six pounds, after washing it ; put it into the vessel to cook with a quarter of a pound of lean salt pork, and two slices of lemon ; pour over three quarts of water, let it boil, and skim as directed in boiling meats. After the scum ceases to rise ; put in a blade of mace, a teacup of rice, a dozen black pepper corns and keep stewing gently two hours ; then add four onions, two carrots, one French turnip cut in quarters, or two round turnips and a head of celery, half a dozen par-boiled potatoes, and a fagot of green herbs, which consists of a sprig or two of thyme, summer savory and parsley tied together. If the soup is wanted

white, just before serving add a teacup of cream and let it boil once. Vinegar is unnecessary when lemon is used. Cream and acids do not curdle; milk and acids do.

CALVES' HEAD SOUP.—I will give my mother's recipe for making Calves head Soup. She had it from her mother, and the rule is nearly as old as the settlement of Rhode Island.

A calf's head and pluck (which includes heart, liver, lungs, and skirt) and two feet are generally sold together; two pounds of lean veal and half a pound of salted pork should be included. The head and legs should have the hair cleared from them; the eyes should be taken out, the end of the nose chopped off, the head split from the top down, and the lower jaw to be divided.

Take out the brains and throw them into a bowl of cold water with a little salt. Take out the gristle and parts belonging to the nose and throw them away; put the parts of the head into cold water and let them remain. Separate the head, liver, and lungs, and throw them into water with the legs which should be jointed. Thoroughly wash and clean these, and put them into the pot with nearly a pailful of cold water, a table-spoonful of salt, and a piece of dried red pepper-pod and seeds, the size of a nutmeg. Let it boil, and skim according to the directions already given, and when the scum ceases to rise, throw in a teacupful of washed rice; and let it boil an hour and a half.

Change the water while the brains are not free from blood; pick out the stringy portions, and tie them in a cloth like a pudding, and drop it into the soup to cook for an hour.

Prepare three carrots, two French turnips, four onions, and ten potatoes; cut the carrots into inch thick slices, the onions into quarters, and the turnips into six pieces. If white button onions are used, half a dozen can be put in. Allow for the carrots an hour and a half, turnips an hour and a quarter, and the potatoes three-quarters of an hour, half the time parboiling them. Put these into the soup at the proper time.

Chop the lean veal very fine with the pork; season with a teaspoonful of salt, a saltspoonful of sugar mixed with it, a saltspoonful of black pepper, a teaspoonful of lemon thyme, and half the quantity of lemon rind; break in an egg, stir all well together, and make up into balls of equal size, which roll in eggs, and then flour and fry. Half of these balls drop into the soup just before serving, and garnish the meat with the remainder.

After the brains have cooked an hour take them from the soup, and turn them out of the cloth into a dish. As soon as the meat cleaves from the bones it is done; skim it from the soup, pick out the bones, and, after cutting a slice from the liver and two from the lungs or ligths, cover up the dish and keep the meat warm.

Chop these slices very fine; add the brains, two pounded crackers, a heaping table-spoonful of butter, a table-spoonful of sugar; salt, pepper, sage, and thyme, to suit the taste, and two table-spoonfuls of sharp vinegar; beat these well together, and put all into a saucepan to cook slowly and carefully ten or fifteen minutes. Throw half the balls into the soup, and put the meat into the dish it is to be served from, slicing the heart, liver, and lights, skin the tongue and divide it lengthwise; lay the slices around the balls, and lay upon the meat hard boiled eggs cut in slices. Serve with the brain-sauce and melted butter in separate dishes. Dish the vegetables separately. Three hours and a half is the

time to cook this ; and to those who like old-time cookery it will be most excellent.

Clear Gravy Soup, or Transparent Soup, is made from solid, lean beef, in the proportion of one pint of water to one pound of beef and two ounces of ham, This is the foundation of all beef soups ; the great secret of making being not to spare the meat, and to boil slowly.

Brown Gravy Soup, or Stock.—Take seven or eight pounds of fresh lean beef, cut a small portion of it into thick pieces, and put it with four large sliced onions into a close-covered stewpan, with a little butter, until fried a fine brown. That done, add a shank of ham, cover the meat with two quarts of cold water, and let it simmer by the fire three hours, during which time it must not be allowed to boil, but when it commences, check it by throwing in half a teacupful of cold water, and skimming it. This slow cooking draws all the gravy from the meat. At the end of three hours, throw in three quarts of warm water, a quarter of an ounce each of black pepper, allspice, and salt, a fagot of sweet herbs (which consists of thyme, parsley, and bayleaf, tied together), a few cloves, a couple of shalots, two carrots and turnips, the latter an hour later, and two heads of celery ; allow this to boil slowly until the meat is thoroughly done and the vegetables become tender. Strain it off, and let it stand all night. Remove the fat on the following day. Set any portion of it on the fire an hour before dinner, and when well heated, season it with mushroom or walnut ketchup, and serve with a plate of toasted bread cut into small pieces without the crust. This ferms from a gallon to five or six quarts of strong soup, according to the quality of the meat. It is a Winter soup, and will bear keeping ; and if served at more than one time, the flavor may be varied by the addition of vermicelli, &c.

Cock-a-Leekie.—Put seven pounds of the upper end of a leg of beef and an old fowl in a pot with water sufficient to cover it, the white part of two or three dozen leeks, half boiled and sliced, and one pound of prunes. Stew the meat till tender, skimming it well. The leeks should be blanched or white, and enough used to thicken the soup ; the only seasoning is salt and allspice. Cook between three and four hours.

Cottage Soup.—Put two pounds of lean beef, cut into small pieces, with a quarter of a pound of salt pork, cut up, two pounds of mealy potatoes, two carrots, turnips, and onions sliced, some leeks and cabbage and three ounces of rice. Fry the meat, cabbage, and onions in dripping ; put them into a gallon of water to stew gently over a slow fire for three hours, adding the carrot at the same time, but the turnip and rice only in time to cook them soft ; the potatoes should be boiled by themselves, and mashed through a colander into the soup. Season with pepper and salt. Keep the vessel closely covered. This makes five pints of excellent soup. To any kind of broth add whatever vegetables may be in season, and stew them gently until quite tender. Then strain the soup, thicken it with a little flour and water mixed while it is simmering ; and when this is done, season it to taste. Return the vegetables to the soup, and boil half an hour.

Pot-au-feu.—Take parings of butcher's-meat ; add an old fowl or rabbit, a slice or two of salt pork, beef, or mutton bones, turnips, all sorts of vegetables, onions, herbs, a little ketchup and pepper and salt. Put a piece of butter in the stewpan, lay in the onions and meat and let them brown ; then add the other vegetables, and pour in boiling water enough to cover the meat, and let it stew till tender.

Hotch potch.—Take any quantity of lambchops ; pare off the skin and most of the fat ; trim the bones ; cut the smaller end of the chop into pieces ; into a stewpan put in whole after the following order : At the bottom a layer of chops, covered with vegetables cut in small pieces, onions, cellery, lettuce, carrots, turnips, and green peas ; then a layer of chops and then vegetables until all are added. Cover with water, and stew until the meat and vegetables are tender and the soup thick. Salt and pepper to season.

Vegetable Soups.—The best of these are made on a foundation of some sort of meat broth in which vegetables are stewed. The broth is the real stock on which these soups are made, though each soup bears the name of the vegetable which gives it flavor ; but when made solely from roots, herbs and vegetables, and used as a basis for the formation of soups without meat, the stock is then composed of every sort in season which can by long stewing be reduced to a pulp, in which every species of savory herb, such as chervil, tarragon, and marjoram, with a few chillis or peppers are mixed with shalots and a head of garlic, seasoned with mace, peppercorns, salt, and mushroom ketchup. This pulp is strained, and, being highly seasoned, may be kept a few days and used in aid of any other soup. This must simmer several hours, and should it need browning, some sliced onions fried in butter will be all that is necessary.

Julienne Soup.—Cut in pieces, either in thin strips or of the size of dice, one head of celery, two carrots, two turnips, two leeks, the heart of two heads of lettuce, pare twelve small button onions carefully to preserve their shape ; put two tablespoonfuls of butter into a stewpan, and these vegetables on the butter, with any other that may be in season, more particularly heads of asparagus and a little sorrel ; add a lump of sugar. Stew or fry them over a slow fire, keeping them stirred, adding a little stock or gravy occasionally, made from beef or veal ; soak some pieces of crust of bread the size of a shilling in a portion of the stock ; and when the vegetables are nearly stewed add them, and then add two quarts of stock made from beef or veal ; warm all together. Neither pepper nor ketchup is needed. Cook for two or three hours. Keep the heat uniform.

Green Pea Soup.—Boil three pints of green peas in just water enough to cook them tender, then pour in three pints milk, and when it boils, stir in a quarter of a pound of butter in which a tablespoonful of flour has been mixed ; stir it until it boils. Season with salt and pepper, and serve hot.

Another.—Take three cabbage lettuces, three onions, a pint of young peas, a quarter of a pound of butter, a fagot of mint ; cut the vegetables into small pieces and stew them until tender. Cook three pints of other peas, in five pints of water until quite soft, rub them through a sieve, and add to this the above ingredients. Boil, and then serve.

Soupe à la Flamande.—Wash, peel, and slice twelve potatoes and six onions, and cut six or eight heads of celery into small pieces; put these into a stewpan, with a quarter of a pound of butter and a pint of water; let them simmer one hour; fill up the pan with a good stock; boil till the potatoes are all dissolved; rub through a sieve; add a pint of cream.

Most vegetables which can be mashed through a sieve after being cooked (forming what is *purée* by the French), combined with any sort of stock or broth, will make soup of various kinds. Beef stock is preferred for savoury soups, and veal or fowl for more delicate white soups.

Leek or Onion Soup.—The liquor in which a leg of mutton has been boiled will do for this broth. Mix a spoonful or two of oatmeal, according to the quantity of broth, as if for gruel; mix it well into the liquor, and boil leeks and onions, or either alone, until it is as thick as cream.

Onions peeled and cut into pieces, put into a pan, and fried in oil or butter, without broth, but having boiling water poured over them, with some toasted bread in it, seasoned with salt and pepper, are considered very refreshing.

Okra Soup.—Okra makes a very fine soup, with tomatoes added. This vegetable is not in general use at the North, though easy of cultivation and quite ornamental.

Put on six pounds of fresh beef, allowing a pint of water to each pound; after it has simmered an hour add two quarts of okra cut fine; after these have boiled, throw in a dozen tomatoes that have been skinned, and two turnips and two onions; season with salt and allspice; strain the soup, and serve with toasted bread put in the turneen. Put the meat in a dish by itself.

Beef Stew.—It is very important in making stews, as well as soups, to keep the vessel closely covered so as not to let the steam escape.

One knows not until experiments have been made how much finer the gravy is, and how much more tender the meat, when cooked in a perfectly tight vessel. The toughest piece of meat which a day's cooking in a common pot over the fire would hardly render fit to eat, will make a tender, savory stew in three hours.

Take two or three pounds of meat, wipe it carefully, trim off the fat, lay it in the bottom of a deep dish (that is a dish about five or six inches deep, and nine or ten across the top), and cut the lean in pieces the size of an egg or smaller, if the meat be tough; put these into the dish with a gill and a half of water, and a little salt and pepper; place a pie-plate on the top; wet the edges and lay around a piece of rye paste. This makes the vessel perfectly tight. Set it in the stove or range oven, and keep up a regular heat, like that which is required when baking. Just before dinner, take it out, remove the plate and paste, and make a thickening of flour and water, and stir it in when it boils. To make the gravy very rich, mix two teaspoonfuls of sweet butter with one and a half of flour, and stir this into the gravy. If the meat seems tough, a spoonful of good vinegar should be put in at first. A little chopped onion may be added, if liked.

Butternut Pie.—One quart of milk, two eggs, a coffee-cupful of pulverized meats, and a little sugar and nutmeg.

To Remove Ink from Linen.—Dip the soiled part in pure melted tallow. Wash out the tallow, and the ink stain will be removed with it.

Almond Custards.—Blanch a quarter of a pound of almonds, beat fine ; add a pint of cream, two spoonfuls of rose water, and the yolks of four eggs. Sugar to taste.

Wiggs.—Half a pint of warm milk, three-quarters of a pound of flour, three spoonful of yeast. Let it rise, and work into it four ounces each of sugar and butter, and a few carraway seeds. Bake quick.

An Excellent Common Fried Cake.—One cupful of sugar, one cupful of cream, three eggs, some cinnamon or nutmeg, and a tea-spoonful of saleratus. Cut in jumbles or in strips, and twist and fry in lard.

Doughnuts without Yeast.—One cupful of sugar, two eggs, one cupful of fresh butter, three cupful of buttermilk, flour enough to form a dough (not too stiff), and one tea-spoonful of saleratus. Fry in lard.

Bannock.—Two cupful of meal, two cupful of flour, one tea-spoonful of salt, and four spoonful of molasses. Wet up with buttermilk, adding a tea-spoonful of saleratus. Bake one hour.

Milk Toast.—Boil a pint of rich milk with a table-spoonful of butter, and one of flour. Have ready, in a dish, eight or ten slices of bread, toasted. Pour the milk over them hot, and cover it until it goes to the table.

How to render Ladies' Dresses Non-Combustible.—Add a little powdered alum to the starch used in preparing them. The alum will prevent them from bursting into flame when placed in contact with any burning substance,

Lowell Brown Bread (Capital).—Three tea-cupful of Indian meal, two tea-cupful of rye, one-half a tea-cupful of molasses, one tea-spoonful of salt, and one tea-spoonful of saleratus. Mix in one quart of new milk. Bake two hours.

Baked Indian Pudding.—Take three pints of new milk, and scald half of it. Stir in meal until quite thick ; then add the remainder of the milk. Beat four eggs, and stir into the butter. Spice and sweeten to taste, and bake two hours.

Raised Biscuit.—To three pints of sifted flour, add one quart of boiling milk. When milk warm, stir into the batter one cupful of potato or home brewed yeast, and a tea-spoonful of salt. When light, add one tea-spoonful of soda, four spoonful of melted butter, two table-spoonful of white sugar, with flour stiff enough to mold. Make into small cakes. When light, bake in a quick oven.

Cream Biscuit.—Four tea-cupful of cream, one tea-spoonful of saleratus, dissolved in a cupful of milk. Both milk and cream should be sweet, or both sour. Add one egg, if you choose. Mix soft as you can, and not mold it much. Bake in a quick oven.

Cookies.—One cupful of butter, two cupful of sugar, four eggs, two table-spoonful of sour milk, and one tea-spoonful of saleratus, dissolved in the milk. Do not work them stiff, only so as to roll. Bake in a moderate oven. When half done, stew them with grated loaf sugar.

Crullers.—One cupful of sugar, one cupful of milk, half a cupful of butter, two table-spoonful of cream (if not too thick and rich, if rich, one table-spoonful is sufficient), two beaten eggs, and one tea-spoonful of saleratus. Work well, but not stiff—only so as to roll. Fry fast.

Rice Pudding, with or without Raisins.—One pint of cooked rice, one pint of milk, one tea-spoonful of salt, and the yolks of four eggs. Bake till done; then add the whites of the eggs, beaten to a froth, with four table-spoonful of sugar. Bake again five minutes. Serve with liquid sauce.

Brown Bread without Yeast.—One quart of Indian meal, one pint of white or brown flour, one tea-spoonful of salt, one-half a cupful of molasses, and one tea-spoonful of soda, dissolved in warm water, stirred into one quart of milk, warmed. Beat all together into a batter, and bake slowly two hours.

Indian Meal Puffs.—Into one quart of boiling milk stir eight table-spoonful of meal, and four spoonful of sugar. Boil five minutes, stirring constantly. When cool, add six well-beaten eggs. Bake in buttered cups half an hour. Try them with a little butter and maple molasses, and see if they are not good.

Ginger Nuts.—Ten cupful of flour, three cupful of molasses, one cupful of melted butter or pork gravy (it is good half and half), one cupful of sour cream, two table-spoonful of saleratus, dissolved in half a cupful of warm water, and one table-spoonful of ginger. Make soft as can be rolled, and bake quick. This keeps well.

Drop Biscuit.—One quart of sifted flour, one tea-spoonful of salt, one beaten egg, one small tea-spoonful of soda, dissolved in a little hot water, one cupful of cream, two cupful of sour milk, or buttermilk, and a spoonful or two of white sugar. Stir thoroughly to a thick batter. Drop with a spoon on buttered tins. Bake in a quick oven.

Rabbits and Racoons can be made excellent by dressing nicely, and soaking over night in a plenty of cold water. Then parboil in fresh water; then boil in a second water, with some salt and saleratus. When tender, take out to cool; then cut off the fat, and cut the meat into nice slices. Then heat some butter in a frying-pan, place in the slices, sprinkle on salt and pepper, and fry slowly till a delicate brown. This way of preparing them removes all the wild taste, making the meat perfectly sweet, tender and nutritious. By trying and straining the fat, you have a nice, white oil.

CALIFORNIA CABBAGE.—At the last State Fair of California a cabbage was exhibited that weighed fifty-three pounds. That was beaten, however, by a beet which was exhibited last year, at 42 pounds weight and then replanted, and grew to 115 pounds.

MULCH THE MELON GROUND.—All ground where melons are planted should be mulched before the vines begin to run. You may use old hay or straw, or fresh cut grass, or, if convenient, small bushes, such as willow, hazle, or any others that will lay down flat. Cucumbers are as much better bushing as peas.

'THE FARMERS' JOURNAL.
MONTREAL RETAIL MARKET.

	BOHSECOURS.			
	s.	d.	a.	s. d.
FLOUR.				
Country Flour, per quintal	14	0	a	15 0
Oatmeal, per quintal	10	6	a	11 0
Indian Meal, per quintal	0	0	a	0 0
GRAIN.				
Wheat, per minot	0	0	a	0 0
Oats, per minot	2	0	a	2 1
Barley, per minot	3	6	a	3 7
Pease, per minot	3	7	a	3 9
Buckwheat, per minot	3	0	a	3 9
Indian Corn, yellow	0	0	a	0 0
Rye, per minot	0	0	a	0 0
Flax Seed, per minot	5	6	a	6 0
Timothy, per minot	9	6	a	10 0
POWLS AND GAME.				
Turkeys, (old) per couple	5	0	a	7 6
Turkeys, (young) per couple	0	0	a	0 0
Geese, (young) per couple	4	0	a	6 0
Ducks, per couple	2	6	a	4 0
Ducks, (wild) per couple	3	0	a	3 6
Fowls, per couple	2	6	a	3 0
Chickens, per couple	0	0	a	0 0
Pigeons, (tame) per couple	1	3	a	2 0
Pigeons, (wild) per dozen	2	6	a	3 0
Partridges, per couple	0	0	a	0 0
Woodcock, per brace	0	0	a	0 0
Hares, per couple	0	0	a	0 0
MEATS.				
Beef, per lb	0	4	a	0 9
Pork, per lb	0	5	a	0 7
Mutton, per quarter	5	0	a	7 0
Lamb, per quarter	2	4	a	0 0
Veal, per quarter	5	0	a	12 3
Beef, per 100 lbs	35	0	a	40 0
Pork, (fresh) per 100 lbs	30	0	a	40 0
DAIRY PRODUCE.				
Butter, (fresh) per lb	1	3	a	1 4
Butter, (salt) per lb	0	10	a	0 11
Cheese, per lb, skim milk	0	0	a	0 0
Cheese, per lb, sweet do	0	0	a	0 0
VEGETABLES.				
Beans, (American,) per minot	0	0	a	0 0
Beans, (Canadian) per minot	7	6	a	10 0
Potatoes, (new) per bag	3	9	a	4 0
Turnips, per bag	0	0	a	0 0
Onions, per bushel	0	0	a	0 0
SUGAR AND HONEY.				
Sugar, Maple, per lb, (new)	0	4½	a	0 5
Maple Syrup per gallon	0	0	a	0 0
MISCELLANEOUS.				
Lard, per lb	0	8	a	0 9
Eggs, per dozen	1	0	a	1 2
Halibut, per lb	0	0	a	0 0
Haddock, per lb	0	3	a	0 0
Apples, per barrel	10	0	a	20 0
Oranges, per box	0	0	a	0 0
Hides, per 100 lbs	0	0	a	0 0
Tallow, per lb	0	4½	a	0 5
BREAD.				
Brown Loaf	0	11	a	0 0
White Loaf	0	9	a	0 0