

wipe them with a cloth daily, for at least three or four months, and every alternate day afterwards; and when there are any symptoms of cracking, bacon fat, hog's lard, or some other fatty substance is applied. The floor of the cheese-room is generally covered with dried rushes, or a coarse grass, resembling rushes, called "smiddle" or wheat-straw. The floor should be level, otherwise the cheeses will not be kept easily in shape; and should be well washed with hot water and soft soap about twice a year. The temperature of the cheese-room should, when attainable, range between 60 deg. and 65 deg. When this is the case, the "first make" will generally be ready for the factor by Sept. or October, and the "latter make" by December or January; but in consequence of many rooms being badly situated and imperfectly heated, the farmer very often does not get his cheese into the market until two or three months after these respective periods. The object gained in having the cheese-room about the temperature I have named, is three-fold: the perfect fermentation and ripening of the cheese; the reduction of labour; the quicker return of profit.

It is usual in this county to sell the cheese by what is sometimes called the "long hundred" (120 lbs. to the cwt.); but the factors often require 121 pounds. The price varies with the quality of the article, the state of the market, and the size of the cheese: for large cheeses always sell for more per lb. than smaller ones. There is perhaps nothing more difficult to ascertain than the average price of cheese, inasmuch as both farmer and factor make the price a secret. The highest I heard of last season (1843) was 72s. per cwt. of 120 lbs., or a little more than 7d. per lb.; the lowest would probably be about 40s. or 45s.—*Journal of the Royal Agricultural Society of Eng.*

London, in treating of the Raspberry, says: "The Syrup is next to the strawberry in dissolving the tartar of the teeth, and as like that fruit, it does not undergo the acetous fermentation in the stomach; they are therefore recommended to rheumatic and gouty patients." The raspberry is also useful in the confectionary department, forming an excellent fruit for tarts, jams, and sweetmeats, and when properly prepared as a syrup, and diluted, makes a delicious and refreshing beverage, very cooling and safe in fevers.

Raspberry Syrup.—To every quart of fruit, add a pound of sugar, and let it stand over night. In the morning boil and skim it for half an hour; then strain it through a flannel bag and pour into bottles, which must be carefully corked and sealed. To each bottle, add if you please a trifle of brandy, if the weather is so warm as to endanger its keeping.

The same recipe answers for *Hackberries*.

Raspberry Jam.—1 lb. Loaf Sugar or White Havant Sugar, to every pound of fruit—bruse them together in your preserving pan with a silver spoon and let them simmer gently for an hour. When cold, put them into glass or china jars, and lay over them a bit of paper saturated with brandy—then tie them up so as carefully to exclude the air. They will keep a year, and are better than if made after the old method, with the addition of currant jelly.

Ginger Beer.—One pint molasses and two spoonful ginger, put into a pail to be half filled with boiling water—when well stirred together, fill the pail with boiling water, leaving room for one pint of yeast, which must not be put in until lukewarm. Place it on a warm hearth for the night, and bottle it in the morning.

Beer. (from a Lady of Weatherfield, Conn.)—20 drops of the oil of spruce, 20 do. wintergreen, 20 do. Sassafras. Pour two quarts of boiling water upon the oils, then add eight quarts of cold water, one pint and a half of molasses, and a half pint of yeast. Let it stand two hours and then bottle it.

Rennet or Fine Custards.—Very simple, and prepared in five minutes. Cut a bit of Rennet about four inches square into strips, which put into a bottle filled with wine. It will be fit for use in two or three weeks. To make your custard, first warm and sweeten the milk, then stir into it a tea spoonful or table spoonful of the rennet wine, according to its strength, and pour immediately into a piddling dish, or cups, as you prefer—put away in a cool place for an hour, and grate nutmeg on them. The whey, of which you

can make enough, by the addition of extra wine when you prepare it, is a very nourishing drink for invalids.—*Agriculturist*.

Tomato Catsup.—To a gallon skinned tomatoes, 4 table spoonful salt, 4 do. black pepper, half a spoonful of p. ce. 8 red peppers, and spoonful mustard. All these ingredients must be ground fine and simmered slowly in sharp vinegar 3 or 4 hours. As much vinegar is to be used as to leave half a gallon of liquor when the process is over. Strain through a wire sieve and bottle, and seal from the air. This may be used in two weeks, but improved by age, and will keep several years.

Dr. Rush's Cure for persons who have drunk imprudently of cold water or any cold liquid when too much heated. Doses of liquid laudanum proportioned to the violence of the attack. From a tea spoonful to near a table spoonful has been given before relief has been obtained.

The best and most simple recipe for preserving Eggs—Pack them during the summer and fall for winter. Take a stone crock or firkin, and put in a layer of salt, half an inch deep, insert your eggs on the small end, and cover each layer of eggs with a layer of salt. If the eggs are fresh when packed, and put into a cool dry place, they will keep perfectly good until the following summer.

Boil Salsify or Vegetable Oysters till the skin will come off easily. When you have taken it off neatly, cut the roots into bits as long as an oyster; put into a deep vegetable dish a layer of crumbs of bread or crackers, a little salt and pepper and nutmeg and a covering of butter as thin as you can cut it; and a layer of oysters, till your dish is filled, having crumbs at top. Fill the dish with water and brown them handsomely. They can remain two hours in the oven without injury, or be eaten in half an hour. *ib.*

Indian Meal Cakes.—To three pints of indian meal a piece of butter as large as an egg, and a tea spoonful of salt. Put two tea spoonful of boiling water stir it in, then add three eggs, and milk to make it to the consistency of batter. Half a tea spoonful of saleratus.

Whooping Cough.—A tea spoonful of castor oil to a table spoonful of molasses; a tea spoonful of the mixture to be given whenever the cough is troublesome. It will afford relief at once, and in a few days it effects a cure.

The same remedy relieves the croup, however violent the attack.

Tincture of Roses—Take leaves of the common rose, (*centifolia*) place them, without pressing them, in a bottle, pour good spirits upon them, close the bottle, and let it stand until it is required for use. This tincture will keep for years, and yield a perfume little inferior to otto of roses. A few drops of it will suffice to impregnate the atmosphere of a room with a delicious odor. Common vinegar is greatly improved by a very small quantity being added to it.—[German paper.]

TO CORRESPONDENTS.

T C H Subscriptions rec'd. We trust you will not despair so soon. Where you find persons who wish to commence with a particular number, and will not take it from the first, you may receive half the price for the remainder of the volume, when they get the later they will perhaps order the earlier numbers. You have a strong argument for the farmers to take an Agricultural paper, in the fearful calamity that is before them, from the Hessian Fly. If they hope to escape it, they must study the habits of the insect.

CANADA FARMER.

June 19, 1847.

THE HESSIAN FLY.

This terrible destroyer has come upon us at last. We have just returned from a short tour of investigation in the townships of York, Vaughan, and Markham. We examined several wheatfields in each of these townships remarkable for the production of this grain, and in all of them with but one exception, in the first or second handful we pulled up, we discovered the larva or maggot of the Hessian Fly. In some stalks we found as many as ten, in different stages of development. The great part were of a pale white, with a green stripe through the middle of the body; a few had turned brown, having reached what is called the flax-seed state. They are found near the root, between the outside leaves and the body of the plant. In some cases there were so many imbedded in the stalk, that the sap could not circulate, and the plant was turning yellow and beginning to die. In a field belonging to Mr. Shepherd, and also in

one belonging to Mr. Davis, about nine miles north of this city, we found the maggot in the tallest and most vigorous looking plants, in the rankest spots in the field; but more frequently they were found in the small, weakly stalks which had the appearance of being winter-killed, though it is more likely they owed their sickly appearance to the presence of these insects. Nearer this city, some fields which two weeks since looked healthy, and promised an unusual crop, have turned of a pale yellow colour, the leaves look stiff and staring, and it is doubtful if the owners will get their seed, to say nothing of their bread. While the effects of these destructive insects had become so plain that some farmers in this vicinity were ploughing up their wheat in order to sow other grain, others a little farther north had not discovered them at all. We were informed that Mr. Snider, in the Township of York, was about to plough up ten acres of spring wheat, so completely had this dreadful devastator done its work. This circumstance proves that the egg has been deposited this spring, in the case of spring wheat at all events.

Though if it be true, as has been asserted by some who have studied the habits of this insect, that the worm or egg is deposited in the seed and not in the stalk, it is not necessary to suppose that the fly has been abroad this spring. If this theory were true in the negative as well as the positive part of the proposition, namely, that the egg is "not deposited in the stalk or culm," a protection against the ravages of the Hessian Fly might be found in a careful selection and preparation of seed. But we should like to know how it happens that it appears in wheatfields grown from seed produced on the same farm for years, where until now there were no signs of its presence? Does the fly penetrate the mow or stack, or does it find its way into the bin? We think not. Then it can only be in the field before the wheat is cut, that the seed is accessible to the fly, which must be furnished with an ovipositor that will penetrate the chaff and skin of the kernel, otherwise the egg would be destroyed. But it does not appear that the insect is so furnished, and therefore this supposition seems not well-founded. This theory, put forward by a Miss Morris, of Pennsylvania, and mentioned in the following article, is proved to be untrue by an abundance of evidence. The fly deposits its eggs upon the leaf, whether it does so in the seed or not, and therefore it will be impossible to get rid of it by anything we can do with respect to the seed merely.

Last year the grain worm or weevil injured the wheat in this district to a considerable extent, but nothing like what, we fear, may be expected from the Hessian Fly, that terror to the wheat grower, which this season, for the first time we believe in this part of the country, makes its most unwelcome appearance. One-third of the wheat crop in many places has been winter killed, and we have every reason to fear that another third will be destroyed by the fly; upon the remaining third we must subsist ourselves, and the thousands of emigrants who are coming among us, (for we are sending off every bushel we can spare of last year's crop) and after we have done this, where will the surplus be which we are to export to Great Britain? And if this same destroyer has passed over the wheatfields of the great West, what is to become of the starving millions of Europe? We fear the calamity is yet to come, and that we shall not long be suffered to occupy the position of mere spectators. A lady in this vicinity has just received a letter from two sons who are farming in the State of Illinois, and they write that the farmers in their neighbourhood are ploughing up their wheat and planting corn in its place, in consequence of the ravages of this insect. We have not yet observed statements of this kind in the papers from that quarter, and we hope it may not be general, (but see page 83.)

We publish the following article from "Johnson's Encyclopedia;" it contains the most recent information that we have met

with, and will, we doubt not, be read with great interest at this time. We should be glad if some of our subscribers, at a distance from Toronto, would make examinations in their respective townships in reference to this all-important subject, and send us the result for publication:—

"One of the most formidable enemies of the wheat crop in the United States, is the far famed *Hessian Fly*, a small gnat or midge, which naturalists have placed in the family of gall-gnats (*Cecidomyiidae*). The insects of this family are very numerous, and most of them in the maggot state live in galls, or unnatural enlargements of the stems, leaves, and buds of plants, caused by the punctures of the winged insects in laying their eggs. The following account of the Hessian fly, the dread of farmers wherever wheat is cultivated in North America is chiefly taken from Harris's *Report on Destructive Insects*, and Herrick's valuable paper upon this insect, published in *Silliman's American Journal of Science*, vol. 42. The brief history of the habits and transformations of the Hessian fly will be found to agree essentially with the excellent observations on this insect, written in 1797, by Dr. Isaac Chapman, and published in the *Memoirs of the Philadelphia Society for Promoting Agriculture*.

"The head and thorax of this fly are black. The hind-body is tawny, and covered with fine grayish hairs. The wings are blackish, but are more or less tinged with yellow at the base, where also they are very narrow; they are fringed with short hairs, and are rounded at the end. The body measures about one tenth of an inch in length, and the wings expand one quarter of an inch, or more. Two broods or generations are brought to maturity in the course of a year, and the flies appear in the spring and autumn, but rather earlier in the Southern or Middle States than in New England. The transformations of some in each brood appear to be retarded beyond the usual time, as is found to be the case with many other insects; so that the life of these individuals from the egg to the winged state, extends to a year or more in length, whereby the continuation of the species in after years is made more sure. It has frequently been asserted that the flies lay their eggs on the grain in the ear; but whether this be true or not, it is certain that they do lay their eggs on the young plants, and long before the grain is ripe; for many persons have witnessed and testified to this fact. In the New England States, winter wheat, as it is called, is usually sown about the 1st of September. Towards the end of this month, and in October, when the grain has sprouted, and begins to show a leaf or two, the flies appear in the fields, and having paired, begin to lay their eggs, in which business they are occupied for several weeks. The following interesting account of the manner in which this is done, was written by Mr. Edward Tighlman, of Queen Ann county Maryland, and was published in the eighth volume of the *Cultivator*, in May, 1841. 'By the 2nd week of October, the first sown wheat being well up, and having generally put forth its second and third blades, I resorted to my field in a fine warm forenoon, to endeavour to satisfy myself by ocular demonstration whether the fly did deposit the egg on the blades of the growing plant. Selecting a favourable spot to make my observation, I placed myself in a reclining position in a furrow, and had been on the watch but a minute or two, before I discovered a number of small black flies alighting and sitting on the wheat plants around me, and presently one settled on the ridged surface of a blade of a plant completely within my reach and distinct observation. She immediately began depositing her eggs in the longitudinal cavity between the little ridges of the blade. I could distinctly see the eggs ejected from a kind of tube or sting. After she had deposited eight or ten eggs, I easily caught her upon the blade, and wrapped her up in a piece of paper. I then proceeded to take up the plant with as much as I conveniently could of the circumjacent earth, and wrapped it all securely in a piece of paper. After that I commenced my observations on the fly, caught several similarly occupied, and could see the eggs uniformly placed in the longitudinal cavities of the blades of the wheat; their appearance being that of minute, reddish specks. My own mind being thus completely and fully satisfied as to the mode in which the egg was deposited, I proceeded to my dwelling and put the plant with the eggs upon it in a large glass tumbler, adding a little water to the ear, and secured the vessel by covering it with paper, so that no insect could get access to the interior.—The paper was sufficiently perforated with pin-holes for the admission of air. The tumbler with its contents was daily watched by myself to discover the hatching of the eggs, about the middle of the fifteenth day from the deposit of the eggs, I was so fortunate as to discover a very small maggot or worm, of