

Entomology.

"Hair-Snake."

Mr. Charles Arnold, of Paris, Ont., sent us some little time ago a live specimen of what is commonly called a "Horse-hair worm," or "Hair-snake." He writes as follows:—

"Enclosed herewith please find some kind of living thing. I should not have troubled you at this time, were it not that there are many intelligent persons in this section who believe that the origin of this species of living creature was a hair from a horse's tail!

"Being myself almost an unbeliever in this doctrine of Transmutation, I beg to refer the matter to you, trusting that you will keep the readers of the CANADA FARMER well posted on these subjects.

"One young man, to whom I showed this animal, declared that he once put a hair from a horse's tail into a bottle of water, and in a short time it became a living creature like the one sent. If this is true, it is very suggestive, and puts strange notions into one's head. Query. If the horse's tail were put in the water entire, what kind of an animal would it turn into?

"The enclosed has been confined in the bottle some three weeks (We have had it as many more, and it is still very active. Ed. C.F.) At first it appeared very lively, and would put its head (or tail, I do not know which) out of the bottle; latterly it has not been so lively. The water has been changed every few days."

The supposed live horse-hair is a parasitic hair-like worm, belonging to the class *Entozoa*; it is a specimen of the *Gordius aquaticus*. It is about ten inches in length, and about one-fortieth of an inch in diameter, without any perceptible organs to mark either head or tail. These worms live in their young or larval state in the bodies of insects, such as grasshoppers, etc.; but when mature they leave the bodies of their victims, and take refuge in shallow pools or moist situations, where they lay their eggs in long chains. If the weather should chance to be dry, they often become dried up to mere threads, which are very brittle and easily broken; but a shower of rain or immersion in water soon restores them to activity. The young are said to hatch from the eggs in the water or mud in which they are deposited, but they soon penetrate into some unfortunate insect, and complete their development in its body. The worms which affect children belong to a kindred order of animals of this class, but they are of a shorter and stouter form, and possess an anal orifice, which these do not.

The common superstition about their being vivified horse-hairs is, of course, a pure myth. We remember often having been told by ignorant people in our childhood, that if we put a hair from a horse's tail into water it would turn into one of these "snakes" in nine days! We were never sufficiently credulous to try the experiment ourselves, but numbers of country-folk are ready to declare that they have seen the operation with their own eyes! This would be a transmutation far beyond the wildest theory of the most enthusiastic disciple of Darwin. As our correspondent asks, what would be the effect of the immersion of an entire tail? or why should not a hair from the mane do as well? or better, from the tail of an ass! If Mr. Arnold's young friend is not given to "drawing the long bow," he must have mistaken a dried-up *Gordius* for a horse-hair, and have restored a parched specimen to activity.

Cut-worms in Spring Wheat.

To the Editor of THE CANADA FARMER:

SIR,—In your issue of 15th April last you kindly replied to my note regarding the "Cut-worm," as you believed it to be, destroying spring wheat. I promised to send you some specimens of it, should it make its appearance this season. I am sorry only for the reason that I will not in the meantime be able to assist you in discovering its natural history, that I was not able to send you any. I looked carefully about the same time as it did its work last year, and in fields, as far as I could judge, exactly in the same

position as those so much injured last year, and I could not discover so much as one, nor did I notice any of the wheat injured in the least, neither have I heard of any fields which have suffered from it. Is it not rather peculiar that it should have been so very destructive in 1866, and no injury known to have been done by it, either in the year immediately preceding or in that succeeding it?

INQUIRER.

TURNBERRY, Huron County, 30th Nov., 1867.

NOTE BY ED. C. F.—The sudden appearance of immense numbers of particular species of insects during one year, and their disappearance again for several years more, is one of those problems in Natural History which has not yet been satisfactorily solved. The laws of nature are intended to maintain a just balance between the animal and vegetable kingdoms of the earth, and also between the various families, genera and species of each kingdom; these laws are at times apparently broken or suspended—at least as far as man's observations extend—and then some particular class gains a temporary preponderance, which, after a longer or shorter period, it loses again. In the disturbance of nature's laws, man himself is the great offender, by his clearing of forests, converting wildernesses into smiling fields, and in various other modes; and thus he at times produces an enormous supply of food for a destructive insect, while at the same time he drives away the birds and other animals that generally keep them in check. This is a subject, however, upon which our limited space warns us not to enter. It is rather a theme for an essay or dissertation, than for a brief note of explanation. We are much obliged to our correspondent for his attention; we shall always be glad to hear from him.

PENNYROYAL FOR FLEAS.—A Georgia correspondent of the *Scientific American* gives his experience with these pests. He says: "Much the larger number of these insects are brought into our family circles by pet dogs and cats, and the pig-sty is generally filled with them at this season of the year, where numbers will hop on you when visiting it for the purpose of feeding or inspection. The oil of pennyroyal will drive these insects off; but a cheaper method, where the herd flourishes, is to throw your dogs and cats into a decoction of it once a week. Mow the herb, and scatter it in beds of pigs once a month. I have seen this done for many years in succession. Where the herb cannot be got, the oil may be procured. In this case, saturate strings with it, and tie them around the necks of dogs and cats; pour a little on the back and about the ears of hogs, which you can do while they are feeding, without touching them. By repeating this application every twelve or fifteen days, the fleas will flee from your quadrupeds, to their relief and improvement, and your relief and comfort in the house. Strings saturated with the oil of pennyroyal, and tied around the necks and tails of horses, will drive off lice; the strings should be saturated once a day."

A FLIGHT OF LOCUSTS.—At Malta, about noon on Saturday, the 9th instant, the sky became filled with locusts, which appeared to be travelling from east to west over the island. The main body preserved a high altitude, but many, perhaps tired by their long flight, settled in different localities along their route. A light breeze was blowing from the westward, so that the insects were proceeding head to wind. The town was quite in a state of excitement. The boys were catching the locusts in their hats, and the sparrows and jackdaws were feasting on them in the air with evident satisfaction. This extraordinary spectacle lasted all the afternoon. During the whole of this time they never ceased passing for a moment, and towards sunset their numbers were considerably augmented. In some parts of the country the fields and gardens were covered with them. Most fortunately, for some unaccountable reason, they made no long stay, and on the following morning, with the exception of a few stragglers, had all disappeared. Nor do we hear of any serious damage having been done by them to the crops, which have already suffered much from the continued absence of rain. A similar visitation occurred at Malta, in 1814, the year after the plague; and in 1850, a cloud of these insects appeared on the eastern side of the island and did some injury.—*Malta Times*.

Rural Architecture.

Design for a Country House.

We again present our readers with a design for an elegant and commodious residence, rather more elaborate and costly than those we have hitherto given. Although it may be beyond the means of the majority of Canadian farmers, there are many amongst our readers sufficiently prosperous to be able to erect a dwelling such as is here represented; and many others on the road to affluence may store up the hints here given for practical application at no distant day.

We recommend this design not only for the agreeable effects of its exterior, but for its simple and commodious arrangements within. The style of the exterior is what is generally termed the Italian, and is perhaps as well adapted to the requirements of this climate as the Gothic or any other style; the roofs are not steep, and will not throw off the snow as well as the Gothic, but they project well over the walls in every direction, thus throwing the snow or rain clear of both the walls and foundations. The deep shadows formed by the projecting cornices are also very effective, and give beauty to the building. The square tower rising above the main roof is a picturesque feature, and suggests the idea of stability in the structure.

This style of building requires that it should be erected with either brick or stone. When stone is easily attainable, as it is in many localities in Canada, we would prefer that material, as it tends to give the building a more permanent and substantial character than any other. It is often urged that stone houses are damp; but this fault is easily overcome by building the walls hollow, which can be done by building an inside lining with four and a half inch brick work, and leaving a hollow space of say three inches between the stones and brick work, and tying them together at certain intervals with hoop iron ties.

This mode of construction has also other advantages, viz., no inside furring and lathing is required, as the walls can be plastered on the solid brick-work, where two coats of plaster will be sufficient instead of three. Another important advantage is, there will be no place for rats or other vermin, as the skirting boards can be placed against the solid wall. The air space can also be used for ventilating purposes.

There is, moreover, an air of stability and durability about a stone structure; age, so far from being destructive to it, only increases its beauty. What can be more picturesque than an old stone house or church covered with moss or ivy, and shaded with venerable trees, planted by the hands of those who have perhaps long since passed away. Contrast with this the effects of time on a wooden structure, under similar circumstances. We have all seen such examples even in this young country—cracked walls, broken plastering, settling of the timbers, leaky roofs, &c., &c., too well known to many house owners and tenants in Canada.

To those about to build, we wish to say a few words. Having selected the site, and chosen the material, the next step is to procure a design best suited to the wants and conveniences of your family. The accompanying design is not intended for a model to be copied for every locality, but to show how important it is to have a design adapted to the peculiarities of the site, and suit the wants of the house; and how unwise it is to erect only the stereotyped house of a certain model, unvaried in all its details or character, as is very much the custom in Canada. Having selected your architect, make him conversant with your general requirements, the amount of accommodation necessary, the materials to be employed, and the amount you can afford to spend on your proposed