

should have a sliding panel, which, in winter, can be shut from sunset to sunrise. The only inside flings required are a few nests raised off the ground, and a moveable perch, not more than three feet high. This is best made of split trees, the bark left on to give the fowls a firm hold. The setting up of a poultry establishment is thus not a serious expense or troublesome matter; but in addition to the general living abode there should be a sitting-house, devoted entirely to the setting hens. Here they will be secure from intrusion, and the greatly increased return from the clutches set will soon pay the small outlay expended on the house. The saving of time to the poultry manager is also a consideration. The hens are taken off their nests simultaneously, well fed, allowed access to sand or ashes, and in twenty minutes all should be replaced on their eggs, to sit in peace till the return of another day calls for a similar routine of action. The sitting-house may be fitted up with rows of nests, with folding flaps in front, to confine a careless giddy hen if she shows any inclinations to wander, and on the flap may be marked the date of setting at the same moment. The rearing of poultry is a very pleasant recreation; we know that our gracious sovereign, Queen Victoria, stands first on the now long and fashionable list of poultry fanciers, and in humbler quarters we find the love of animals deeply implanted in the minds of children. To them the care of the hen-house forms a useful and instructive lesson—it teaches them regularity, tidiness, and perseverance, and while affording a harmless amusement as well, it may be made a self-supporting if not profitable one. It is essentially a home pleasure, and whatever tends to increase our interest in and love of home must be worth cultivating. —*The Henwife in The Farmer* (Scottish.)

On Preserving Eggs.

At a late meeting of the Farmers' Institute in New York, a note was received from Mr. W. M. Brown, of Indiana, inquiring whether there is any way to pack eggs so as to keep them good for spring until the winter months? Upon this question the following discussion took place. The name of the first speaker is not given:

There are various modes of keeping eggs, none of which are quite successful. Sometimes eggs packed in water saturated with lime keep perfectly well, and sometimes they don't. Some persons say they can keep them in water saturated with salt, others keep them packed in fine dry salt; others in charcoal dust. If packed in sand and kept in a very cool cellar, they will remain through the year. They should always be packed small end up. The best way to preserve eggs is to store them in one of Mr. Nyce's Preservatories.

Prof. Smith, Columbia College, said that the common way of preserving eggs in the North of Europe, and which appeared to be more effectual than any other mode he had ever seen was this: The eggs are placed in a barrel, keg, earthen jar, or any other suitable vessel, and then melted tallow, only just warm enough to flow, is poured in, filling the interstices, and thus hermetically sealing them from the air, which appears to be all that is necessary for their perfect preservation. When wanted for use, they are easily obtained by warming the open end of the vessel to soften the tallow.

Solon Robinson.—I think lard or oil would answer the purpose; it would be more convenient. I have heard molasses recommended, and do not see why it would not answer perfectly.

Mr. Carpenter said he had found no difficulty in preserving eggs in fine dry salt. He packs them endwise, and about once a month reverses the ends of the casks, or rather box, with straight sides, so that a board and cloth or paper fits down and holds the contents in place when reversed.

Prof. Tillman gave it as his opinion that anything which would exclude air would preserve eggs. Recent experiments in France have developed the fact, that varnishing the shell destroys the value of the egg for incubation.

Mr. E. Williams said he had seen eggs perfectly preserved by packing in meal.

THE BRAHMA FOWLS.—Mr John S. Ives, Salem, Mass., writes us thus respecting the above named breed of fowls: "I have kept upwards of 30 different breeds of domestic fowls, but find the Brahma to excel all others as winter layers and for the market. I winter about 60 pure Brahma fowls, keep them but one year 'or one winter' that is, my chickens are hatched in April and kept from laying until November; they are then forced by high feeding, which is continued until the next August or the moulting season. They are then killed for the mar-

ket. The Brahma is the most domestic of all breeds of fowls, they will not fly over a fence four feet high. For the market their flesh is tender, juicy, and fine flavored. I have procured from the same number of fowls one-third more eggs from the Brahmas, during the winter months than from any breed I ever kept. In this vicinity most farmers are keeping no other breed of fowls, as they have proved them to be far superior to any other."—*Rural N. Yorker.*

Entomology.



The May Beetle.

A FRIEND in Cobourg has recently mentioned to us that his strawberries have been very much injured by a large white grub which attacks the roots and thus destroys at once the vitality of the plants. From his description of the marauder, we have no doubt that it is the larva of the common May-beetle, or Cockchafer (*Lachnosterna quercina*, Knoch) which is so abundant just now. In the western part of Cobourg, and, indeed, almost all over the neighbourhood, these beetles may be seen on any fine evening in perfect myriads flying about the trees, the leaves of which they devour in this stage of their existence.

This insect has been long and most unfavourably known as very destructive to vegetation, both in its larval and winged state. In the former, it is commonly called the "White Grub;" it is then a soft white worm with a brownish head, and six legs, becoming when fully grown about as large as one's little finger. It is usually found, partially curled up, near the root of the plant on which it is feeding. Unlike many of our destructive insects, the devastations of each individual are not confined to a single year, but it continues several years in the grub state and finally changes early in the spring into a dark chestnut-brown beetle, nearly an inch long, with rather long legs, and its breast covered with yellowish hairs. It flies about at night with a loud buzzing noise, and in a most clumsy manner, as if it had very little control over its movements, to the great discomfort and perturbation of nervous persons, especially when attracted into houses, as it often is, by the light. Its period of flight is usually limited to the months of May and June, though it is sometimes met with a little later in the season. The grubs are very commonly dug up early in the spring in gardens, in various stages of maturity; the plough, too, brings many more to the light of day—it is hardly necessary, we suppose, to tell our readers that in such cases they should be destroyed at once and without mercy by treading under foot. The perfect insects may be collected and put an end to, by shaking them from the trees they infest into a cloth spread beneath for their reception, and then throwing them into boiling water; the specimens thus choked will be readily eaten by pigs, which in fact root up and devour multitudes of the grubs without waiting for any previous culinary operations. The best time to shake them from the trees is early in the morning, when they become sluggish and stationary, their flight being confined to the hours of darkness.

This insect is so well known to all children as well as grown persons that it is needless to give any further description of it. We shall merely recommend that it be relentlessly destroyed wherever met with. Its ravages have been recorded by many writers, and at considerable length; those who desire fuller information than we have space for, we would refer to Harsh's *Treatise on Injurious Insects*, page 30, Fitch's *Third Report on the Noxious Insects of New York*, page 60, and Mr. Walsh's article in the *Practical Entomologist* for April last, p. 60. The last mentioned writer relates that it has proved exceedingly destructive, during the last few years, to the crops of Indian corn in the States of Illinois, Michigan, and Missouri. He appears inclined to attribute their recent increase and consequent destructiveness to "the introduction of improved breeds of hogs, in the place of the old,

slab-sided, long-nosed, prairie-rooters, and to the passage of laws compelling people to keep their hogs under fence instead of allowing them to run at large." This is very likely to be the case, but we should certainly prefer trying some other mode of keeping under the ravages of the beetle or its grubs, than the re-introduction of "prairie-rooter" pigs; we only wish that the other grievance, the law compelling hogs to be kept from running at large, were universally in existence in Canada.

Among the natural repressers of this insect, Dr. Fitch mentions the Skunk (two presume most persons would consider the employment of this remedy infinitely "worse than the disease"), the domestic cat, and common barn-door fowls. "But," he states, "of all the destroyers of these insects, no other animal can vie with the crow, which frequently follows the track of the plough to feed upon the grubs of the May beetle which are turned up thereby."

Caterpillars on the White Cedar.

We have been shown some twigs of white cedar from Mr. Leslie's, Toronto Nurseries, that are almost completely destroyed by a minute greenish caterpillar with a black head. Its mode of operation appears to be to begin at the extremity of a twig, and literally to eat its way downwards, consuming all the green pulpy matter of the leaves, and only sparing the hard scale-like skin on each side. The portions thus attacked become brown or whitish, and nearly transparent when held up to the light; this change of colour is valuable, inasmuch as it at once directs attention to the position and work of the depredator.

The name and character of the insect we cannot determine until we have followed it through its changes to its perfect form; but we are inclined to suspect that it will prove to belong to some minute family of Lepidoptera, probably the *Tortricidae* or the *Tineidae*, many of whose members mine the leaves of various trees and shrubs when in their larval state. If any of our readers have observed this insect, and can give us any information respecting its habits, &c., we shall be very glad to hear from them; it is quite new to us.

As we are not yet acquainted with the whole natural history of this little destroyer, we cannot suggest any remedy for its ravages, except cutting off and burning all the twigs that are infested by it. This, we do not doubt, will prove effectual, and certainly cannot inflict more injury upon the shrubs than the insects themselves are trying to accomplish.

The Apiary.

Management of the Apiary for July.

By J. H. THOMAS.

THE management for this month will not vary much from that of June, and especially this season which has been an uncommonly bad one for bees. From all quarters, reports are coming in that bees are doing poorly. In this section, stock that wintered through well have since been unable to obtain sufficient honey to keep them from starving, and in many cases have left their hive to seek supplies in some other hive, leaving their brood to perish. Other stocks have killed off their drones, which will, of course, retard swarming. The consequence is, there will be but few swarms in June. Up to the present time (June 23rd,) there have been no swarms cast in this section except from Italian stocks. Since, however, the white clover harvest has commenced, the weather has been favourable, and the condition of the bees is greatly improved; but at the best, swarming will be late. We speak of this and other sections from which we have heard. If honey boxes have not been put on, they should be at once. As soon as they are filled, and nearly capped, they should be removed. Where moveable comb hives are used, artificial swarming may be commenced at once where stocks are strong. We have already made some swarms. For directions how to make artificial swarms see "*Canadian Bee-Keepers' Guide*." As swarming will be late, it would be well to put second swarms together, and all third and fourth swarms together. Let it be remembered that success in Canada depends much upon keeping strong stocks. It is quite enough for the bee-keeper to double his stocks. Where moveable comb hives are used, and natural swarming is allowed, five or six days after a swarm is put into