

Entomology.

Insects for Identification.

"A. A. B." of Guelph, has recently sent us some entomological specimens for identification; they consist of (1) some twigs belted with clusters of eggs, and (2) a large silken cocoon. The first of these are the eggs of the well-known, and too widely-distributed Tent caterpillar of the apple tree; an illustrated article, containing full descriptions of this noxious insect, will be found on page 237 of the First Volume of this Journal; it is needless, therefore, to repeat the history of it here. We gladly, however, take the opportunity of calling our readers' attention to the necessity of at once examining their orchards and gardens, (if they have not already done so,) and destroying all the clusters of eggs they can find. No time should be lost in delaying to perform this necessary piece of work, as ere long the trees will be putting forth their leaves, and then it will be impossible to discover these belts of eggs. The young caterpillars, too, come forth almost simultaneously with the leaves, and are then, of course, much more difficult to exterminate completely. The first dull, cloudy day should be selected, and the orchard and garden thoroughly examined. A practised eye will soon detect the swelled appearance of the twig where these eggs are placed, by standing underneath the tree, and looking upwards, bringing the branches into relief against the sky. The clusters of eggs are sometimes at the very end of the twig, sometimes a foot or two from the extremity, and not unfrequently more than one belt of eggs may be found on the same branch. They can be gathered either by cutting off the twig; or, where that is not desirable, by tearing them off with the finger and thumb-nail; when removed from the tree they should be burnt in the fire, to make sure that none escape.

We wish to call attention to this matter particularly at the present time, as we have observed in the neighbourhood of Toronto, and in other parts of the country, an unusual number of these clusters of eggs. If they are allowed to remain unmolested, we shall have such a crop of caterpillars as will almost completely denude our orchards of their foliage, and very materially lessen the produce of fruit. Let us all bear in mind the old adage that "An ounce of prevention is worth a pound of cure." It should be mentioned also, that these eggs may be found upon the wild and cultivated cherry-trees, the wild plum, and some species of thorn, as well as upon the apple.

The second specimen sent us for identification, by our correspondent at Guelph, is the large silken cocoon of the Emperor Moth (*Saturnia cecropia* Linn), the largest of our Canadian insects, individuals sometimes measuring no less than seven inches across the expanded wings. The specimen before us had never attained to maturity, the caterpillar having been attacked by a species of *Tachina*, a parasitic race of insects that much resemble the common house fly. It is very remarkable that a caterpillar, although attacked by a multitude of these parasites (we have obtained nearly a hundred from a single cocoon of the emperor moth) has still strength enough left to spin its double envelope of silk, and complete its transformation into the pupa state; here, however, its foes soon become too many for it, and cause its silky wrapper to become a veritable winding-sheet, instead of merely a protection from the winter's frost and cold.

Since the above specimens were received, Professor Buckland has kindly handed us a letter from a gentleman at Markham, enclosing two nests of eggs of the Tent caterpillar (*Climacampa Americana*, Harris) mentioned above. These, we are informed, were gathered some days ago, and placed in a room of moderate temperature, in consequence of which a multitude of the tiny caterpillars have become hatched out; too soon, however, for their own welfare, as they have since perished for want of food. The letter states that "on placing the enclosed, recently collected nests, under the glass last evening, and allowing an intense light to fall for some time upon the interior surface, it began to teem with life foreign to the nest, so small as to require several seconds of active locomotion to cross the surface of one of the eggs." We have been unable to discern this example of "life within life," even with the aid of a powerful microscope; we shall take care, however, to obtain a fresh supply of these tiny eggs, and then, perhaps, we shall be able to determine what these minute organisms are—the eggs sent by our correspondent had all become hatched out, and are now but empty shells.

British Cleanings.

A farmer bearing the name "Ade Apostles Pegdon," recently died in Kent, England.

EGGS EXTRAORDINARY!—A recent British paper has the following: "Mr. David Davidson, Slater and plasterer at Thornton, Fife, has a hen of the Dorking breed, which has dropped a number of eggs which weigh $3\frac{1}{2}$ oz. and 4 oz. each."

A FRUITFUL EWE.—*The Farmer* (Scottish) has the following:—"Alexander Montgomery, Esq., who resides near Antrim, has a ewe thirteen years old, which has produced twenty-four lambs during the last twelve years. She reared them all, and has not had a tooth in her head for the last seven years."

THE IMPLEMENT TRADE.—We learn from the *Mark Lane Express* that considerable sensation has just been caused amongst the makers of steam-engines in consequence of a leading firm having reduced their prices from the first of February at least ten per cent., and other houses, of course, having to follow this lead.

SALMON AND TROUT FOR AUSTRALIA.—We learn from a British exchange, that "the *Lincolshire*, a fine, fast-sailing ship, which left the East India Docks, London, on the 20th ult. for Melbourne, took out 87,000 salmon ova, 15,000 sea or white trout ova, and 600 brown trout ova—in all, 102,500, which were packed with moss and charcoal in 141 boxes, and stowed away in the midst of upwards of 50 tons of ice."

WEEKLY COST OF THE KEEP OF A HORSE.—We find the following paragraph in a recent issue of *The Farmer*, (Scottish):—"Professor Low, in his 'Elements of Agriculture,' gives this at 6s. 6d.; Mr. H. Stephens, in his 'Book of the Farm,' 6s.; Mr. Gibson, Woolmet, 9s.; Mr. Binnie, Seaton, 11s. 6d.; Mr. Thomson, Hanginside, 9s. 6d.; Mr. W. C. Spooner, in the *Agricultural Society's Journal*, 4s. 9d.; Mr. Baker, Woburn, Bedfordshire, 9s. 8d.; Mr. C. Howard, Biddenham, 8s. 6d.; J. J. Mechi, Tiptree, 7s. 6d.; which gives an average of 7s. 11d."

WAR AGAINST ROOKS.—We learn from *The Farmer*, (Scottish), that the sapient members of the Easter Ross Farmers' Club, have discovered that the Rook is an uncompromising adversary of the farmer. The chairman had "suffered so severely as to have serious thoughts of giving up sowing winter wheat altogether. And another member having said that he considered them a heavier burden to the tenantry of the county than the poor-rates, it was agreed, after some little discussion, to give £10 and a subscription of 2s. 6d. a-plough for their extirpation."

CHEMICAL CONSTITUENTS OF FEATHERS.—A correspondent of the *Irish Farmers' Gazette* writes to that journal for information on the following points:—"What are the chemical constituent of feathers, and what quantity may be used to the statute acre? May they be used alone? Should they be mixed with stable manure? If so, what quantity, say, for Swedish turnips, mangels, or carrots? Would not superphosphate mix well with them? Are not woollen rags the same chemical combinations?"

The reply of the Editor is as follows:—"The rays or pinnae of feathers consist of 50.434 per cent. of carbon, 7.110 of hydrogen, 17.682 of nitrogen, and 24.774 of oxygen; the quills, 52.427 of carbon, 7.213 of hydrogen, 17.893 of nitrogen, and 22.467 of oxygen. When rotted, they are good manure, either alone or combined with any other manure, and suitable for all farm crops, in any quantity, at pleasure. Woollen rags, hair, &c., possess the same elements."

THE BIRMINGHAM PRIZE OX OF 1865.—*The Farmer* (Scottish,) supplies the concluding particulars of the life of this magnificent specimen of the bucolic race as follows:—"We went to have a last look at Mr. Wood's famous shorthorn when we heard it was doomed to be slaughtered. This was a few days before its being killed, and it then looked handsome and healthy, moving freely about in its pen, and falling and rising its enormous bulk with an ease that showed its strength matched its unparalleled size. If it showed by its breathing and the majestic slowness of every motion that it was stout—very stout—it only imitated the example of that stoutest of philosophers, Dr. Johnston. 'Sir, it is a grand thing to be the finest ox in all England, the pride of a proud race; my name, Sir, is Prize-taker.'"

The following note—furnished, we presume, by the butcher—concludes the history:—"I had the ox slaughtered on Friday last; he is the most extraordinary ox I have ever seen. He weighs 240 stones, and carried 26 st. 4 lbs. of loose fat."

DOINGS IN ENGLISH GAME PRESERVES.—We find the following paragraph in a recent issue of *The Farmer*, (Scottish):—"Is it SPORT or SLAUGHTER?—At a recent battue in the North of England, 4611 pheasants, and 5000 hares and rabbits were slaughtered. This number was estimated as only a third of what was in the preserve, which must have been 14,000 pheasants and 15,000 hares and rabbits."

NOTE BY ED. O. F.—In order to form an approximate conception of the immense destruction of farm produce on this estate, we may state that to grow grain for the support of the birds would require the cultivation of 246 acres, and for the hares and rabbits 1,100 acres. Four hares are supposed to eat as much as a sheep, and seven rabbits eat and destroy as much as four hares.

THE BICTON ARBORETUM.—Respecting this magnificent collection of trees and shrubs, Elihu Burritt in his *Walk from London to the Land's End*, says: "Let the most scientific and enthusiastic of American arboriculturists travel from the Rio Grande to the St. Lawrence, and from the Atlantic to the Pacific seaboard, and he will find here at Bicton more varieties of American trees and shrubs than he named and noted on the western continent. When he has seen the pines of California, of the Rocky mountains, of Michigan, Canada, and Alaska, and heard the solemn sigh and murmur of their branches in the forest breeze, he will indulge the self-complacent sentiment that no one can tell him or show him anything new in the race of conifers. He may boast that he has seen twenty, perhaps even fifty, kinds of that tree in his explorations. Let such a man visit Bicton, and run down its tree roll and read its record after this rate." And he goes on to enumerate the trees beginning with Pinus, two hundred varieties.

INTERNATIONAL HORTICULTURAL EXHIBITION.—*The Mark Lane Express* "understands that the prospects of the Grand International Exhibition and Botanical Congress, to be held at South Kensington in May next, are most encouraging. The ground to be occupied by the Show, which is a portion of the site of the Exhibition of 1862, is already under preparation for the erection of the monster tent; and, according to the plans which have been adopted, the interior arrangements will be made most effective. The complimentary banquet to the learned foreigners who are invited to take part in the proceedings, or to attend as delegates from foreign Governments, and which, thanks to the City Corporation, is to be held in the Guildhall, is drawing in as subscribers to the fund many who are anxious to do homage to the distinguished visitors who will honour the occasion with their presence; while the Botanical Congress, which is to be under the patronage of M. de Candolle, is assuming, from day to day, a more practical shape. Several eminent botanists, both at home and abroad, have already joined in working it out to a successful issue. The meetings of the Congress are to be held in the Raphael Cartoon House, at South Kensington, by permission of the Committee of Council on Education. This great horticultural movement, it should be remembered, is wholly of an independent character; and it must be a source of great gratification to the friends of scientific horticulture in this country that it has attracted so large an amount of voluntary pecuniary support; without which, indeed, it would never have been attempted."

CATTLE PLAGUE RETURNS.—The Second Report of the Royal Commissioners appointed to inquire into the origin and nature of the cattle plague, contains the following:

"Since our First Report was submitted, the disease has continued to spread, the ratio of its advance fluctuating much in different places, but presenting something like uniformity on the whole. The total number of reported cases from the commencement was:

October 1	11,300
November 4	20,897
December 2	39,714
December 30	73,549
January 27	120,740

It has thus nearly doubled itself at intervals of four weeks.

These figures, however, formidable as they are, by no means represent the real amount of loss and suffering inflicted by a calamity which ravages some districts while it spares others. A pressure which would be less if distributed over a large area is ruinous and crushing when those on whom it rests are comparatively few. Cheshire, for instance, which depends in great measure upon its dairy stock, has had, up to the 27th of January, 17,971 cases of disease, Forfarshire 10,099, Lanarkshire 4,371, Cambridgeshire 4,364, Lincolnshire 4,930, Norfolk 4,063, Yorkshire 19,331, and the records of particular villages and farms where the disease has raged would tell a still more distressing tale."