

good speculation for an artist to try, for I know many who would like their rooms furnished with first-class pictures of poultry. I think if the trial were made at such shows as Birmingham and Manchester it would be found that successful exhibitors would be quite satisfied with a choice painting; and the example would be followed at other shows.—R. H. D.

### EGG PRODUCE.

"C. B., Warrington," in THE JOURNAL OF HORTICULTURE, of the 8th of April details his egg produce, and of course presumes it to be something uncommon by doing so, if I may judge him by myself; but I differ from him from experience. Thirty hens in the long month of March produced him 466 eggs; eight hens in the short month of February produced me 160 eggs; multiply by 3, and my twenty-four hens would beat his thirty by fourteen eggs. My eight hens are four Buff Cochins, two Brahmas, two Dorkings, and one Houdan.—A. WYNNE.

### PET PIGEONS.

PIGEONS were my first pets; Pigeons are pets with me still. Thirty years ago my first pair were bought for 6d. Sixpence would buy a pair of common Pigeons yet. My first Pigeons were red with pure white heads; a year or less proved them to be both cocks, but, as my principal school companion had a pair both hens, we made an exchange, and were both suited. The hen I obtained in exchange was blue with a white head, and feathered on the legs and toes. Bigger boys than I at that time said that Pigeons with feathery legs would rot the eggs, but that was not my experience. My pair were noble breeders—we used to reckon on a pair a-month. But Pigeons sit seventeen days, and although they had a nest again in a fortnight, yet five weeks would be about the proper time, and nine or ten pairs of young throughout the year. Certain it is they bred for years the whole year round, except for a month or so about August. They always produced two young ones at a time, and never failed to rear them. The hen was a great pet, and would peck from my hand without fear. She soon learnt her mate to feed from the hand too, but he was long a little more shy. At length they became so tame that they would come to me anywhere at my call, and would feed from my mouth or pocket, or wherever I presented the food to them. They used to accompany me 200 or 300 yards as I set off to school—one sat on each shoulder, and I often fed them from my mouth on the cake and cheese that I had stored for my own dinner. When I returned at night I used to call "Pease" when I came in sight, and off they flew, or at least one of them, for there was constantly one on the nest, and perched on my shoulder or head, and I fed the bird with the crumbs I had saved on purpose.

That pair of mine, I remember, were great feeders. At one meal they would pick up as many raw beans as I could lift with my "gowpens" (two hands together half open and side by side) from the horses' bin. They were very fond of beans and peas, or oaten cake. The hen was the pluckiest, too, for whenever I threw down food she jumped right to the middle of it, and, with outspread wings, went round and round, and tried to keep hens, and Ducks, and Pigeons from taking a particle till she was gorged; even her own mate was served in the same way—self, and nothing but self, seemed predominant with her till satiated. She defended her nest nobly too, for with bill and wings she strove to drive off every intruder. Her pertness was at last the means of hastening her death, for one wintry snowy morning, while gathering food amongst the horses' feet in the stable, she had slipped beneath one of the horses' feet, and thus was crushed to death. The cock reared the young ones then in the nest, and flew about for some years after. At length he wandered to a neighbouring village and brought therefrom another wife, but the owner would have his own, and of course took it away time after time. But the old cock still persisted in decoying the unmated hen, and by-and-by his constancy in wooing cost him his life, for the owner of the hen, provoked beyond measure, took a gun and shot him while out a-wooing, after having been in my possession some eight or ten years. This was the last of my first pets.—MIDLAND SQUIRE.

### RABBITS DYING YOUNG.

I THOUGHT before I saw your answer to my question that I had discovered a clue to the mystery. Another litter died

with exactly the same symptoms as I described before, and by comparing the two cases I came to the conclusion that the disaster was owing to putting the mother to the buck too soon after littering, as in both cases I did so a fortnight after kindling. What makes me think so is that the symptoms appeared in both cases the very next day after her visit to the buck. Could this have any effect on the milk? My own judgment would have directed me to leave the doe in peace till her young were weaned, and I should have acted so had I not seen it directed to do as I did. I shall not try it again till the young are at least a month old.—CUNICULUS.

### MANAGEMENT OF CAGED LARKS.

YOUR correspondent, "A CONSTANT READER," will find the following treatment of service in bringing the "spring bird"—that is, a caught lark, into prime condition.

The cage should be 15 inches long by 10 inches broad and 10 high, and the top covered with black or brown muslin, to prevent the bird injuring his skull when he flies against the top. Six inches in length of the bottom of the cage should be covered to the full breadth with a piece of white clover turf, to be changed, if possible, twice or thrice a-week, the oftener the better, and the rest of the floor of the cage must be covered with fine river sand. Let the cage hang in a quiet side of the room well exposed to the light, and near the ceiling, or at least above the level of the eye.

The staple food should be made as follows—namely, 1 lb. of pea meal, the whole of two eggs, 4 ozs. of lard, and 1 oz. of honey. Place the whole in a saucepan over a slow fire, and keep stirring sharply till it present a slightly browned appearance, being careful not to burn it. This paste can be kept for a long time by tying it up in a bladder. To one table-spoonful of the paste add one large tea-spoonful of hard-boiled bullock's liver grated fine, and one tea-spoonful of crushed hempseed. Should the bird prove steady on this food he may be further "sprung" with a little of "the singing diet," prepared as follows:—Take the yolk of one egg, the same weight of boiled sheep's heart minced, and a little flour; mix well, tie up in a cloth, and boil for a quarter of an hour. To a small piece of this add a little poppy seed, or malt and lettuce seed, and give the size of a small hazel nut with two or three meal worms daily, and a few small, plump, white oats thrown loosely on the bottom of the cage.—E. HUTTON.

### BEEES IN BORNEO AND TIMOR.

HAVING recently perused Mr. Spencer St. John's very interesting work on Borneo, published in 1862, under the title of "Life in the Forests of the Far East," I have made notes of several passages relating to the apian aborigines of that magnificent tropical island:—

Speaking of the agricultural pursuits of the "Sea Dayaks," Mr. St. John says—"They obtain beeswax from the nests built on the tapang tree, and climb the loftiest heights in search of it, upon small sticks which they drive as they advance up the noble stem that rises above 100 feet free of branches, and whose girth varies from 15 to 25 feet. Once these pegs are driven in, their outer ends are connected by a stout rattan, which, with the tree, forms a kind of ladder. It requires cool and deliberate courage to take a bee hive at so great an elevation, where, in case of being attacked by the bees, the almost naked man would fall and be dashed to atoms. They depend upon the flambeaux they carry up with them, as, when the man disturbs the hive, the sparks falling from it cause, it is said, the bees to fly down in chase of them, instead of attacking their real enemy, who then takes the hive and lowers it down by a rattan string. The bees escape unhurt. This plan does not appear to be as safe as that pursued by the Pakatan Dayaks, who kindle a large fire under the trees, and, throwing green branches upon it, raise so stifling a smoke that the bees rush forth, and the man ascending takes their nest in safety. Both these operations are generally conducted at night, although the second might be, I imagine, practised in safety during the day."

With regard to the "Land Dayaks" it is stated, that "To the left of the Sirambau are some very fine tapang trees, in which the bees generally build their nests; they are considered private property, and a Dayak from a neighbouring tribe venturing to help himself of this apparently wild honey and wax would be punished for theft." This is the first hint that is

given of bees being considered in any respect as private property, but the following passage would seem to indicate that the domestication of the honey-bee is not altogether unknown in the island:—"During the night, our rest was much disturbed by bees, who stung us several times, and Mr. Low, with that acuteness which never deserts him in all questions of natural history, pronounced them to be the 'tame' bees, the same as he had last seen thirteen years ago among the Senah Dayaks, in Sarawak. About midnight we were visited by a big fellow, who, our guides assured us, wanted to pilfer; but we found next morning that he had come to complain of his hives having been plundered. On inquiry, we discovered the man who had done the deed. He was fined three times the value of the damage, and the amount handed over to the owner."

During one of his adventurous expeditions up the river Limbang, Mr. St. John found a Pakatan named Japer, who accompanied him, a storehouse of information. He had a thorough faith in ghosts and spirits, and told of "many an adventure with them; of the Antus who caused the death of the wax-hunters, by pushing them off the mengiris or tapang tree. When the unfortunate men, from inefficient preparations, as their companions not keeping up a great fire under the trees to stupefy the bees, are so stung as to let go their hold, the natural explanation is never taken; they fly to their superstitions. Japer's nephew saw one of these tapang ghosts, and managed to keep his eye upon him and prevent him pushing him off; he came down without accident, but without any wax. I suggested that he invented the ghost to excuse his timidity, which Japer thought probable. To-day we passed one of these lofty trees bearing above twenty bees' nests, among them four old ones white with wax.\* As the country is full of tapangs, in which alone do the bees build their nests, the stories of the great amount of wax formerly procured in this district may be true. Why do the honey bees generally build on one particular tree? Its being the finest in the forest is no good reason; perhaps there is something enticing in the bark. I say 'generally,' because, though I have never seen their nests on other trees, yet I have often come across them in the crevices of rocks." In a subsequent part of his journal of the same expedition, our author says—"I never was in such a country for bees: they everywhere swarm in the most disagreeable manner, and ants and other insects are equally numerous." When on their return and nearly starved, the party had "a very happy find, for while passing under a fine tapang tree we noticed the remains of a bees' nest scattered about, and every particle was eagerly appropriated. From the marks around it appeared as if a bear had climbed this lofty tree and torn down the nest to be devoured by its young below, as there were numerous tracks of the smaller animals around, but whether the comb had been sucked by the bears or not was very immaterial to our men, who rejoiced in securing the little honey still clinging to it."

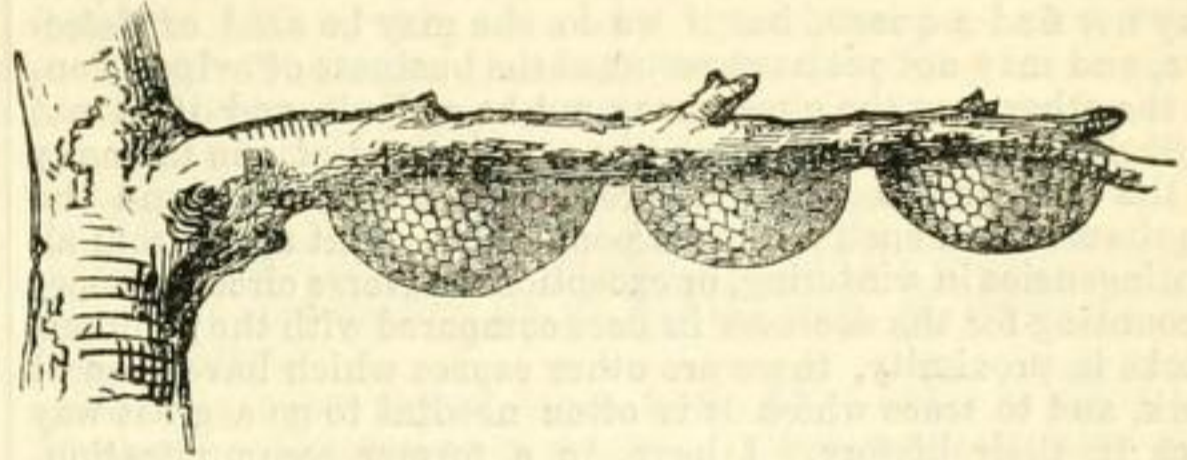
The party appears only once to have fallen foul of a hornet's nest. The encounter and its results are thus described:—"It was in following the bed of the Rawan that I was stung. Notice was given by the guide to leave the direct path, and we all did; but I suppose some one disturbed the hornets, as they attacked me with a ferocity that appears incredible: many flew at me, but two fixed on my arms and stung me through my double clothing. They poised themselves a moment in the air, and then came on with a rush which it was impossible to avoid. The pain was acute, but I saved my face. I tumbled down the steep bank in a moment, and, throwing aside rifle and ammunition, plunged up to my eyes in a pool until the buzzing ceased and the hornets had returned to their nests. Some of my men were also stung; they squeezed a little tobacco juice on the wounds, and they say they felt no further inconvenience. I tried it about an hour afterwards, but it did me no good. I had no idea that the sting of this insect was so severe; my right arm swelled up to double its natural size and was acutely painful; now, on the second day, it is much less so, but as the swelling continues it is impossible to use it much."

That wild bees are exceedingly abundant in the forests and jungles of Borneo may be inferred from the foregoing passages, as well as from the numerous references to parties of native "wax-hunters" which occur in almost every chapter of the work. Although no clue is given by Mr. St. John to the identity of the Bornean honey bee, or any information as to

the manner in which it builds its nest, I am enabled in some measure to supply the deficiency from other sources.

Some half dozen years ago I received from Mr. Charles Darwin, the distinguished naturalist, a few specimens of bees named *Apis testacea* (Smith), together with two pieces of their comb. Although these had been brought by Mr. Alfred R. Wallace, the celebrated traveller and author of "The Malay Archipelago," just published, from the island of Timor in the Eastern Archipelago, I believe them to be the same as those which are indigenous in Borneo, so that there appears little reason to doubt that these are the bees referred to by Mr. St. John. On examination I found them half as long again as *Apis mellifica*, and their brood comb proportionably thicker. They were, in fact, a variety of the magnificent *Apis dorsata*, which is described as flourishing abundantly throughout the great Indian peninsula, from Cape Comorin to the Himalayas, as well as in Ceylon.

Mr. Darwin subsequently introduced me to Mr. Wallace, to whom I am indebted for the following particulars:—"In Borneo and Timor the wax forms an important article of commerce. The combs hang on the under side of horizontal limbs of lofty trees, often 100 feet from the ground.



I have seen three together as above, and they are often 4 feet in diameter. The natives of Timor I have seen take them. They climb up a tree carrying a smoke torch made of a split creeper bound up in palm leaves, and hanging by a rope from their waist. They cover up their body and hair carefully, but their arms and legs are bare. The smoke directed on the comb makes the bees fly off in a cloud as the man approaches. He sweeps off the remainder with his hand and then cuts off the comb with a large knife, and lets it down to his companions below by a thin cord. He is all the time surrounded by a cloud of bees, and though the smoke no doubt partly stupefies them, he must be severely stung. While looking on from a considerable distance a few came down and attacked me, and I did not get rid of them till I was half a mile from the place and had caught them all, one by one, in my insect-net. The sting is very severe. I should imagine that in Timor the dry season answers to our winter, as the drought is very severe, and much of the foliage is deciduous. Eucalypti are the most common trees, and their flowers I suspect supply the bees with their honey. In Borneo combs are placed in a somewhat similar manner, perhaps formed by the same species. The only bee I have seen domesticated in the East is one at Malacca; the natives hang up bamboos and hollow logs for it; but it is, I believe, not a true *Apis*, as it makes clusters of large oval cells of black wax."

I may add that the Timor bee was named *Apis testacea* on account of its colour, which is very light, and is, in fact, the only point in which it differs from *Apis dorsata*. When some years ago I compared the specimens in the British Museum, I became impressed with the idea that those which represented *Apis testacea* were nothing more than newly-hatched and immature specimens of *Apis dorsata*, and so strongly did I urge my views upon Mr. Smith, that I believe I almost induced him to doubt the correctness of his own nomenclature, until he was afterwards assured by Mr. Wallace himself that they were really mature and fully-developed adult bees.—A DEVONSHIRE BEE-KEEPER.

#### THE BEE-KEEPER'S OPENING SEASON.

THERE is something delightful in the return of spring! It is the season of resuscitated life among thousands of the animal and vegetable world, and will be hailed at such a time by every apiarian reader of the Journal. So to the apiary we bend our way. A calm sultry day, the 14th of April, like one in July. What a hubbub of excitement and rejoicing! All my hives are presided over by Italian or Egyptian queens, though the outdoor work is still carried on chiefly by the hardworking plodding

\* More probably new ones.—A DEVONSHIRE BEE-KEEPER.