

the use of teachers in country schools. The object is to disseminate the knowledge of a good system of planting and keeping cottage gardens, so that the owners may obtain a maximum of pleasure and profit from them, and the country generally present a more smiling appearance. It is hoped that the guide will enable teachers to cultivate their gardens in a superior manner, and thus make them good examples for the instruction of others.

— A fine specimen of *AGAVE ELLEMBERTIANA* is now flowering in the Conservatory at Kew. The spike reaches a height of 11 feet above the base of the plant, and is about 8 feet in length. The flowers are expanded for a space of 2 feet at the same time, and from the yellow anthers, which reach from side to side about 9 inches, have a very ornamental appearance. It belongs to the group with soft unmarked leaves; the edges are quite smooth, and the surface of a distinct glaucous green, quite unlike any other species. This specimen has about twenty-five leaves, the largest of which are 21 feet long and 6 inches wide, lanceolate-pathalate in form. It is shortly caulescent, and is said not necessarily to die after flowering. It was figured in the *Rapports Botaniques* from a specimen grown by Mr. W. W. SAUNDERS.

— We have the *Index Seminum Horti Mosevianici* for the present year before us. It includes about 2000 species, and is especially rich in herbaceous plants, including some 350 Compositae, 200 Gramineae, &c. The seeds of shrubs and trees offered are almost exclusively those of quite common species. Lists of desiderata should be sent in before March 1.

— The next meeting of the INSTITUTION OF SURVEYORS will be held on Monday evening, Feb. 26, when a paper will be read by Mr. J. LUCAS, F.G.S., entitled "Hydrogeology; or the Developments of Modern Practical Geology." The chair to be taken at 8 o'clock.

— At a recent meeting of the Society of Arts Sir JOHN LUBBOCK gave a lecture on the subject of certain relations between PLANTS and INSECTS. With reference to the attractions which plants offered to insects capable of fertilising them, and to their means of defence against insects incapable of doing so, Sir JOHN LUBBOCK asked why it was that ants, whose fondness for honey was well-known, did not anticipate the visits of bees to honey flowers. Ants were kept off such plants by *chenopodiate* hairs, and by slippery and glutinous surfaces. The hairs on the stem of a honey plant would be found to point downwards, and there would be a prickly beard surrounding the flower, so that an ant could only with great difficulty reach the honey; and if it succeeded in passing the *chenopodiate* hairs, it would rob the plant without fertilising it, whereas a flying insect could hardly settle to sip the honey without touching the stigma. The stickiness of some plants was a similar protection against ants, and some of the latter species only ascended a sticky fluid when touched, so that the walking of an ant would stimulate the exudation, and the insect would be unable to proceed, and would come to a miserable death. Where the protection of the plant consisted in a slippery surface the flowers were often pendulous, as in the Snow-drop and the Cyclamen, and an ant could walk all over the leaves, but in trying to reach the flower it would fall over. The so-called sleep of plants was governed, he considered, by the habits of the insects which visited and fertilised them. He could not at first understand what advantage a certain plant derived from opening its flowers about six o'clock in the morning and shutting them about ten; but it occurred to him as an explanation that bees and wasps got up early, but that ants did not come out until the dew was off the ground. The second part of the lecture, on the action of plants on insects, related chiefly to the colouring of caterpillars. Why were caterpillars species of all pale green, and why did they then gain longitudinal and diagonal lines, become brown, and have eye-spots? These questions were answered by the lecturer in a series of suggestions based on observation.

First of all, the small caterpillar was light green because, obviously, that was the colour of the leaves on which it fed, and thus the creature was concealed. When the caterpillar grew large, it was important that there should be lines to divert the eye from the outline of the body, and the longitudinal lines resembled those

of grasses and narrow-leaved plants. Caterpillars that fed on broad-leaved plants did not have longitudinal but diagonal lines. Longitudinal and diagonal lines were not found on the same segment, for the crossing of these lines would not agree with any leaves in Nature. White lines were edged with violet, producing the effect of shadow, in the case of caterpillars which fed on the under-side of leaves, near the midrib. Caterpillars that fed upon large trees and could not very well come down to hide by day, retained their original green color, but others which fed on small plants were brown, approximating to the colour of the ground on which they lay in hiding during the day. Some brown caterpillars placed themselves at an angle when feeding, and looked like a bit of dead wood. The eye-spots resembled light shining through a thick fog; and in the case of some caterpillars which derived no protection from this cause it was found that their marking gave them a snake-like appearance which frightened birds. *Daily News*.

— The Astronomer-Royal, having undertaken to register the hours of SUNSHINE in comparison with the number of hours the sun is above the horizon, some interesting results have been obtained. Thus last week the sun was above the horizon 69.3 hours, but his light was intercepted, and he only shone on London 9.3 hours; four days not at all; Sunday, 5.3 hours; Friday, 34 hours, and Saturday half an hour.

## Home Correspondence.

Fertilisation of Plants.—In the last number of the *Gardener's Chronicle* (p. 203) Mr. Henslow quotes my words, that "the seeds from which the self-fertilised plants of the third generation (*P. sativa*) were raised were not well ripened." The word *self-fertilised* is a misprint for *crossed*, as he would have seen if he had looked to the full account of my experiments given at p. 191, where I say, "The sole condition which I can form is that the crossed seeds had not been sufficiently ripened, &c." But I have no right to expect a critic to take so much trouble, and I am much obliged to him for having led me to detect this unfortunate misprint. Mr. Henslow then goes on to say that "Mr. Darwin also accounts for the greater growth of the eighth generation of Ipomoea from their having been raised from unshabby seeds." He says, I think, to have added that the greater growth of the self-fertilised plants was confined to the early part of their lives, and that they were ultimately beaten in height by the crossed plants in the ratio of one hundred to eighty-five. It was this anomalous manner of growth which led me to compare these plants with those of *Iris* which were raised from seeds not well ripened. I have long been convinced that cross-fertilisation is a mere waste of time; I will, therefore, not make any other remarks on Mr. Henslow's criticisms, though I think that I could answer them satisfactorily. I hope that any reader who is interested in the subject will not take Mr. Henslow's interpretation of my statements without consulting my book. *Cherish Darwin*, February 19.

Utricularia montana seeding.—It may interest some of your readers to know that last spring *Utricularia montana* seeded with me very freely. The plant was very strong, and there were several pods on every spike, the flowers in consequence lasted but a very short time, leading me to regret the profuse seeding. My Orchard grower, Spyer, sowed the seed when ripe in pans of moss mixed with a little fibrous peat, and we now have hundreds of young plants. I may mention that the correct name of the new *Utricularia* shown by me at the meeting of the Floral Committee of the Royal Horticultural Society on January 17 is *D. Finlaysonianum*, not *Lindleyanum*. T. L.

Royal Horticultural Society.—Will you permit me to make a few remarks on what passed at the meeting on the 19th. Mr. Elwes, who, as a horticulturist of standing, will add strength to the Council, needed after the loss of the well-known name of Bosworth, instances the Zoological Society as a case in point. The connection with the Royal Horticultural Society having once occurred to me, I worked it out, when many points of difference occurred; these seemed the principal. The "Zoo" has a show every day; it has no serious competitors in the country; its objects of exhibition have motion as well as life, and these are always the most attractive; and last, but not least important, it has its own special friends. As long as there are children, and travellers, and foreigners, it will have its own numerous visitors, in addition to the general public. Mr. Veitch's speech, I admit, fairly puzzled me. Believing that he has influence with the owners of gardens, I spoke to him

among the first about the Guinea Fellowship. He seemed to adopt the idea warmly, and until his speech at the meeting I never had a hint that he had changed his mind; and what added to the puzzle, he, after the meeting, said publicly that he still fully believed in the value of the Fellowship, and that he would work with uncertain approbation. Now to the more important part of my letter. I am constantly being asked—"What are we to do now the Society offers Guinea membership?" My advice is, for the present hold yourself in reserve, and do nothing. You agreed to become Guinea Fellows when the Society was first the Society as it now is, and you will not yet be received as Fellows, but your members will not vote. I have, however, sent a proposal to the President, which would, I think, fairly meet the circumstances. Immediately on receiving the decision I will make it known. *George K. Wilson, Huddersfield, Myrtleidge*.

—The next meeting of the committees will be held on March 7, and, looking at the advanced nature of the season, it is probable that a very charming display of plants will be shown. What steps does the Council propose to take to ensure the attendance of Fellows and others, and thus give to their enterprising exhibitors the only reward at present available in repayment for considerable outlay of expense and trouble? If things are not improved in that respect, the dingiest which grows out of neglect will soon follow. It is my suggestion that the Council should have 5000 new circulars printed, and that the meeting, or future meetings, printed and circulated amongst all London fellows, and at the houses of the local residents. The show might also be open at 11 o'clock, as, there being no competition, it is a waste of time for the committees to absorb the entire show for two of the best hours of the day. *Exhibitor*.

I perceive by the report of the Royal Horticultural Society's annual meeting (made to me) that the remarks I made upon the subject of the Provincial Show Fund either were not distinctly heard by the reporters, owing to the confusion caused by the breaking up of the meeting, or I failed to make myself clearly understood. The first paragraph of your report gives correctly the substance of what I said, but the second bears a resemblance to the suggestion that the Council should have 5000 new circulars printed, and that the meeting, or future meetings, printed and circulated amongst all London fellows, and at the houses of the local residents. The show might also be open at 11 o'clock, as, there being no competition, it is a waste of time for the committees to absorb the entire show for two of the best hours of the day. *Exhibitor*.

Coriarian Crucifers.—I have long had suspicions as to the identity of the highland and lowland *Coris* of Corsica, which since the time of De Candolle, Herbert, and Gay, have been generally lumped together as one species under the synonymous of *minima*, D.C., and *insularis*, Gay. The larger mountain plant has, however, been well known to all collectors in the island. I have, therefore, separated it as a variety under the name of major, which I have since described it as *Coris coriaria*, without distinguishing it from the smaller plant of the coast, from which all of Gay's *M.S.* figures appear to have been taken. I would be very correct as error that crept into some notes on Corsica, that appeared in the *Gardener's Chronicle* (1870, p. 758), in which I recorded *Coris variegata* (the name of major, which I have since described it as *Coris coriaria*) as occurring abundantly on Monte Rotondo. I have not till to-day had an opportunity of comparing the two plants in a living state. They are notably distinct, and as widely separated in essential specific characters as any other species of the variegated group of *Coris*. Their geographical distribution is suggestive, for while the mountain plant, with a yellow stigma much exceeding the anthers, as far as I am aware restricted to low level near the sea, the large mountain form is not found lower than 2200 feet, and occurs profusely on Monte Rotondo up to 6000 feet. It is fully as large as *Coris variegata*, though a little shorter and much broader in the wings, which are greater in the pale purple than that of the coast plant found about Ajaccio, and is nearly the whole of any specimens the anthers overlap the stigma, which is bright orange-marble instead of yellow. I know of no habit for either the large or small forms between the coast line and