



FLOWER GARDEN.

BY

PROFESSOR LINDLEY AND SIR JOSEPH PAXTON.

IN THREE VOLUMES.

VOL. I.

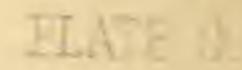
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THE LONG-TAILED LADY'S-SLIPPER.

(CYPRIPEDIUM CAUDATUM.)

A Greenhouse herbaceous plant, from Peru, belonging to the Natural Order of Orchids.

Specific Character.

THE LONG-TAILED LADY'S-SLIPPER. — Stemless. Leaves distichous, sword-shaped, leathery, smooth, spotless. Scape erect, bearing several flowers, longer than the leaves. Bracts like spathes, as long as the ovary. Sepals ovate-lanceolate, gracefully curved. Petals extended into very long pendent wavy linear tails. Lip oblong, glandular on the edge, near the base. Sterile stamen broader than long, 2-lobed, with bristles on the ends of its lobes.

CYPRIPEDIUM CAUDATUM.—Acaule; foliis distichis ensiformibus coriaceis glabris immaculatis scapo stricto plurifloro brevioribus, bracteis spathaceis ovarii longitudine, sepalis ovato-lanceolatis arcuatis, petalis in caudas longissimas pendulas flexuosas lineares productis, labello oblongo margine versus basin glanduloso-serrato, stamine sterili transverso bilobo apicibus setosis.

Cypripedium caudatum: Lindley, Genera and Species of Orchidaceous Plants, p. 531.

This extraordinary plant was for many years known only by a few fragments preserved in Herbaria. At last the collector Hartweg met with it in wet, marshy places near the hamlet of Nanegal, in the province of Quito; but he did not send it home. Subsequently, the collectors of Messrs. Veitch, of Exeter, and of Mr. Linden, fell in with it; and to the latter is, we believe, owing its introduction to Europe in a living state.

For the opportunity of figuring it we have to acknowledge our obligations to Mrs. Lawrence, who first succeeded in bringing it into flower, and who exhibited it to the Horticultural Society in March last. Since that time a weaker specimen has blossomed with Mr. C. B. Warner.

The accompanying plate is a faithful representation of the plant as it flowered at Ealing Park, but is far from giving an adequate idea of the natural beauty of the species. The great sheathing bracts, which in South America are as large as those of a Heliconia, were mere abortions; and we learn from drawings brought home by Mr. Warczewitz that the flowers are very much larger and finer-coloured in its native swamps. The stains on the lip, for instance, are numerous, and of a rich warm brown, giving quite another appearance to the flowers. On one of Hartweg's dried specimens are remains of six flowers of this sort, placed at the end of a scape more than two feet high.

The petals are the extraordinary part of the species. In most Lady's-slipper flowers they are short, and little distinguishable from the sepals; but here they extend into the most curious narrow tails,

which hang down and wave in the wind, in a manner of which we have in gardens no other such example, not even in the genus of Strophanths. What adds to the curiosity of these singular appendages is the fact, first remarked by Mrs. Lawrence, that they are quite short when the flower begins to open, and that they acquire length day by day, at a rate which would enable an attentive observer to see them grow. This lady has favoured us with some measurements made by herself, from which we learn that—

When the flower first opened, the petal	s wer	'e					3 of an inch long.
							33 of an inch.
On the third day they advanced .							4 inches more.
The growth of the fourth day amounted							4½ inches.
And on the fifth day they still extended							5½ inches.

At this time the growth is supposed to have ceased, the petals having in four days lengthened 17\frac{3}{4} inches, and being 18\frac{1}{2} inches long when full grown.

Another example of this tendency to lengthen the petals into tails, but in a less degree, occurs in the "sedgy Lady's-slipper," mentioned further on. And a third case is found in the strange genus Uropedium, in which not only do the petals turn to tails, eight or ten inches long, but their example is followed by even the lip, which for this purpose flattens itself, entirely unfolds, and pushes itself out into a long and narrow tongue. It may be useful to state that this Uroped, which is not yet in cultivation, has the habit of the "bannered Lady's-slipper," and was found wild by Linden, growing in the soil of little woods in the savannah which occurs on the high part of the Cordillera that looks down upon the vast forests of the Lake of Maracaybo. Its elevation above the sea was 8,500 feet, in the territory of the Chiguará Indians, where the specimens now before us were gathered in flower, in June, 1843.

The reason of this marvellous structure seems to deserve inquiry at the hands of some proficient in the doctrine of final causes. There is evidently a tendency towards it in other Orchids, as, for example, in Brassias, some Oncids, the genus Cirrhopetalum, and the long-tongued Habenarias.

The long-tailed Lady's-slipper belongs to a section of the genus which is distinctly characterised by having no foliage on the sides of the stem, instead of which a number of thick narrow leaves spring up from its very base, and allow the flowering stem to rise freely into the air.* They all inhabit tropical countries, but are generally found at considerable elevations above the sea. As most of them are in cultivation, the following enumeration may be useful:—

1. THE HANDSOME LADY'S-SLIPPER. (C. venustum, Wallich.)

From the mountains of Sylhet, and the Khasiya hills of Continental India. We have not seen this from the Malay Islands.

Leaves spotted with deep green and purple, almost as long as the scape. Lip and sepals veined with green. Petals stained with purple, and fringed with long hairs.

2. The Java Lady's-slipper. (C. javanicum, Reinwardt ined.)

Found wild in Java. (Not in cultivation?)

Leaves speckled with green, and much shorter than the scape. Sepals veined with green. Petals

* The stemless Lady-slipper (C. acaule) has the leafless scape of this division, together with he broad, thin-ribbed leaves of the other, and serves to connect the two. It is here intentionally passed by.

distinctly spotted with purple on a green ground, tipped with pink, and fringed with long hairs. Lip deep olive-green, not veiny.—Dr. Blume refers this to *C. venustum*, and perhaps with reason; but a drawing before us from Dr. Reinwardt, and a dried specimen brought home by Lobb (No. 304), suggest the propriety of further examination. The short comparative memoranda given above, sufficiently show that if the same species, it is a well-marked variety.

3. THE BEARDED LADY'S-SLIPPER. (C. barbatum, Lindley.)

On Mount Ophir, where it was found by Mr. Griffith.

Like No. 1, but the upper edge of the petals is marked with purple glands, and all the parts of the flower are much stained with rich purple.

4. The Purple-stained Lady's-slipper. (C. purpuratum, Lindley.)

Grows wild in wet mossy crevices near the summit of Mount Ophir.

Also in the way of No. 1. But the dorsal sepal is convex, white with purple veins, and all the other parts are deeply stained with purple. The leaves are much shorter and more oblong than in any of the preceding.

5. Low's Lady's-slipper. (C. Lowei, Lindley.)

In Borneo and Sarawak.

Remarkable for the extension of the petals into two long spathulate bodies blotched with purple. When wild it has 8-10 flowers on a scape.

6. THE GLANDULAR LADY'S-SLIPPER. (C. glanduliflorum, Blume.)

New Guinea, on old decaying trunks of trees. (Not in cultivation.)

Leaves like those of No. 7. Flowers large, about 2 or 3 on a scape, with long twisted petals, bearing hairy glands on their edge; and a large pale pink lip, which bears within it a pair of long reversed horns.

7. THE BANNERED LADY'S-SLIPPER. (C. insigne, Wallich.)

Mountains of Sylhet and Khasiya.

Leaves narrow, not stained. Flowers large, with an orange-coloured lip, a broad dorsal greenish sepal, edged with white, and long spreading flat greenish petals.

8. Lindley's Lady's-slipper. (C. Lindleyanum, Schomburgk.)

Damp meadows of Guayana, among Sundews, Sunjars (Heliamphoras), and similar plants. (Not in cultivation.)

- A stout, hard leaved plant, with a stem 2 feet high, covered with rusty down. Flowers brown, in a one-sided panicle, having coarse spathaceous bracts at their base. Lip small, oblong, green. A very curious, but not handsome plant.
- 9. The Sedgy Lady's-slipper. (C. caricinum; foliis angustissimis coriaceis acutis unicostatis scapi tomentosi longitudine, racemo plurifloro, bracteis ovatis spathaceis glabris ovario glabro brevioribus, sepalis lateralibus connatis labelli longitudine, petalis in caudam acuminatis.)

Found in Bolivia by Bridges. (Not in cultivation.)

The flowers in our possession are mere fragments, but they suffice to show that the species is perfectly

distinct from all others. The leaves are about a foot long, and $\frac{1}{4}$ inch wide, but they appear as if narrower in consequence of their edges being rolled back.

10. The Long-tailed Lady's-slipper. (C. caudatum, Lindley.)

Mountains of Peru.

The subject of this Plate. The following woodcut gives some idea of the appearance of the plant in a wild state.

