

## BOTANY.

DISTRIBUTION OF PLANTS.—In connection with this subject, it is, I think, quite as interesting and important to notice what species are absent from a district, as it is to record those which occur in it. As an instance of this, I may name the Red Campion (*Lychnis diurna*), which is at present unknown within five miles of High Wycombe; it is, I believe, scarcely known throughout Cambridgeshire, in which county the Barren Strawberry (*Potentilla Fragariastrum*) is also said to be very uncommon. In our Wycombe district, well wooded as it is, the Yellow Cow-wheat (*Melampyrum pratense*) is found in but a very small portion; and this is also the case with the Wood Sage (*Teucrium Scorodonia*). But when we descend to smaller districts, and to even more common plants, we still find the same curious irregularity. In one part of Essex, the Wake-Robin (*Arum maculatum*) is almost unknown; while a few miles off, every hedge-bottom is filled with it. All who have really attempted to investigate the botany of any one district in particular, will agree with me that the distribution of plants is in itself a subject of deep interest, and one which deserves far more attention than it has yet obtained.—B.

A DEODARA (*Cedrus deodara*), in the garden of the Vicarage, Bredwardine, produced two fertile cones last year. On comparing them with cones taken at the same time from a Cedar of Lebanon in the same garden, the only differences I noticed were, that the cone of the Deodara was smaller and more obtusely pointed than the Cedar of Lebanon, and was of a looser structure. I have been told that it is by no means uncommon for Deodaras to produce cones in England, but that the trees which do so are generally stunted. This is by no means the case with this one. It is a remarkably well-grown and graceful tree. Its age, as nearly as I can discover, is from 35 to 40 years.—R. B.

SENSITIVE PLANTS. — Your correspondent "J. L. B." will find that the stamens of the Rock Rose (*Helianthemum vulgare*) are similarly sensitive to those of the Barberry. The only British species with which I am acquainted which really deserves the name of sensitive plant is the Wood-sorrel (*Oxalis acetosella*). If its leaves be roughly handled, they will gradually fold up—not in the same wonderfully instantaneous manner as those of the Mimosa, but quite perceptibly, though slowly; but, curiously enough, this property is more evident in some specimens than in others. I first noticed it in some plants of wood-sorrel which I had in cultivation. The remarkable manner in which the seed is dispersed was also then first brought under my observation. Many plants are sensitive of the approach of rain, but the *Oxalis* leaves are the only ones I know which close at the touch.—B.

EXOGENS.—When the axe is laid to the roots of the monarch of the woods, and other forest trees, a host of adventitious buds are thrown out from the more or less remaining stump, which progress, and in some cases bid fair to rival their progenitors. I believe the rule holds good in both deciduous and evergreen Exogens, with the exception of a few genera, from *Quercus* (the oak) down to the humblest shrub. The Coniferæ seem the only kinds, whether young or of more advanced growth, that lack the vegetative power in the stump. I have observed the denuded trunk of larch to send forth shoots when laid on the ground, but not one from the former, although I have watched closely for a series of years. Have any of your readers observed the same, and can they suggest a cause? I am aware that if a plant be severed at the junction of radicle, and plumule (termed the neck), it is certain death. Can this be said to apply to trees, such as the larch and pine?—J. Maughan.

THE MEZEREON (*Daphne Mezereon*). — This rare plant is, I am glad to say, not yet extinct in Bucks. I have found it this year in one of its old localities near High Wycombe; and it has been observed also in another wood not far hence.—B.

THE PRIMROSE (*Primula vulgaris*). — The form of this plant, which is generally known by the name of Oxlip—although the true oxlip (*P. elatior*, Jacq.) is a widely differing species—is one of the most beautiful and interesting of our spring flowers. A very fine specimen which was brought me the other day had on the same root the umbels elevated on a footstalk, which characterise the oxlip, and the apparently solitary flowers of the primrose. I am inclined to believe that this oxlip is not, as has been asserted, a hybrid between the cowslip and primrose, but rather a development of the latter species. I have found oxlips among primroses frequently, but never among cowslips; and although they seem to assume a middle position between the two, I fancy the primrose characteristics are always the more defined. Perhaps, after all, Linnæus was in the right when he united all these forms under one species, which he named *P. veris*. I have been much struck this spring with the curious metamorphoses which occur in the calyx of the garden polyanthus. In some, this is transformed into a second corolla, under the first; this I have observed in two or three instances, and in widely differing forms. A more curious variation still is that in which the calyx is replaced by leaves, which spread out and far exceed the corolla in size. In some cases these are green, in others green streaked with red, and in texture a curious compound of leaf and petal. This form is very common in our cottage gardens. Perhaps Mr. Holland, who is so well up in monstrosities, may be able to give some additional examples.—B.