

establishing this or any other plant in ground filled with the roots of old trees is found in the dryness of the soil, from which the tree-roots absorb all the moisture, rather than in the absence of light. Periwinkles or other shrubs used in this way will require, therefore, careful watering until they are fully established. When the shade is not dense almost any shrub can be successfully used under or among trees. The common Privet, the Barberry, Wild Roses, the native Cornels, Viburnums and Blueberries can all be used for this purpose. Rhododendrons, although they will not bloom in the shade, are good under-shrubs, and so is the Mahonia in those parts of the country where it is hardy. The growth under the dense forests of the southern Alleghanies, especially in the neighborhood of the streams, is often carpeted with a beautiful evergreen *Andromeda (A. Catesbæi)*, which is one of the best of the shade-supporting plants. It is hardy in New England with a little careful protection. There could be found probably no better dwarf under-shrub for the Middle States than the European *Hypericum calycinum*, the so-called Rose of Sharon—a low, dwarf plant, which produces large yellow flowers during the summer, and which is very generally planted in England under trees, and always delights Americans who visit English gardens. This plant is not, unfortunately, very hardy in northern and eastern New England.

It is desirable, when possible, to plant the under-growth at the same time the trees, which are to shade it, are planted. If this plan is adopted the shrubs get a secure hold upon the ground, and become established before the trees are large enough to shade the ground, or to draw from it all its moisture. If this plan is adopted there is hardly a shrub which cannot be used in this way, although it must be remembered that there are few plants which can produce flowers abundantly without sunlight.—Ed.]

Mutilating Street Trees.

To the Editor of GARDEN AND FOREST :

Sir.—The people of St. Louis have for some years been in the habit of pruning and pollarding their trees, chiefly Ailanthus and Sycamore, but Maples and Elms in many instances. This treatment is usually given to young trees as soon as they have reached the height of the second-story windows, but for the past three or four years a severer method has been practiced, and trees that have struggled successfully with the vicissitudes of a city life until they have attained considerable size, have been topped off down to branches at least four inches in diameter. One row of some twenty or more Sycamores has been mangled to this extent by the neighborhood-carpenter. Will you kindly state what effect this is likely to have on the vitality of the trees? F. C. P.

St. Louis, Mo.

[The appearance of American cities and towns is seriously injured by the way in which ignorant and irresponsible men are allowed, in so many cases, to mutilate shade trees. Sometimes the cutting is done to satisfy the unreasonable demands of the various corporations operating wires; sometimes it is to gratify the whims of individual property owners. We can never hope that the streets of our cities and towns will be ornamented with handsome trees or properly protected from the summer sun, as long as the governing bodies delegate their authority to cut or prune trees to irresponsible agents of private corporations, and allow individuals to hack down every tree standing in a public thoroughfare which may be disagreeable to them. In every city and town there should be a responsible officer, familiar with trees and their requirements, whose special duty should be the planting and care of the street trees, and this officer should superintend the planting of all such trees, and their care and pruning, upon a system which should secure the greatest benefit to the greatest number. Until some plan like this is adopted, in accordance with popular interest and popular demand, there is little use in giving advice in cases like that in St. Louis, as described by our correspondent. Cutting off large branches from a healthy tree reduces its vitality, and, of course, should never be

permitted. Severe pruning may be resorted to when a tree is in a feeble or perishing condition, when such an operation may stimulate vigorous growth. A wound made by cutting off a branch, unless it is immediately protected by a coating of coal-tar or of paint, is liable to be attacked with dry rot and other fungus-growth, and from the affected surface, the decay will gradually penetrate the whole tree and finally destroy it. It is merely a question of time when trees subjected to the treatment described by our correspondent must perish. There can, of course, be but one opinion as to the appearance of a street in which the trees are mutilated by the ordinary city laborer.—Ed.]

To the Editor of GARDEN AND FOREST :

Sir.—In your issue of May 3d, 1888, you kindly inserted an account of cases of inflammation of the skin of the hands and face of a florist and some of his assistants, which was attributed to the irritating action of some plant. *Primula obconica*, the only one handled by them for the first time that season, was held in especial suspicion as the possible offender. The cutaneous disturbance therein described, *dermatitis venenata*, subsided in a short time, and the skin of the three affected persons has remained in a healthy condition until recently. Within the last two or three weeks, however, they have all manifested a recurrence of the same symptoms, an eczematous inflammation of the hands and face, and in about the same degree as last year. They now feel assured that the trouble is caused by *Primula obconica*, for the condition did not develop until a few days after this plant was first offered for sale in the shop, where it was freely handled by them. The proprietor informs me that his hands and face became affected immediately after making it up into dinner-table decorations. He states also that some of those engaged in cultivating it have complained to him of a similar inflammation of the skin, which it has produced upon them. His other assistants in the shop, who were not thus affected last season, remain exempt this year.

It is desirable to know if other cultivators or florists have had a similar experience with this newly-introduced plant, or if other species of this large genus have exhibited irritating properties.

Harvard Medical School, Boston.

James C. White.

Editor of GARDEN AND FOREST :

Sir.—Will you kindly inform me whether *Cypripedium insigne* is best propagated by seed or by division of the roots, and when the division should be made?

Plainfield, N. J.

C. D. W.

[Raising Orchids from seed is a work requiring great skill and patience. The seeds are very fine, resembling chaffy dust. *Cypripedium insigne* is best propagated by dividing the crowns after it has done flowering, and care should be taken that each portion of the plant has some good roots attached. Each division should have two or three growths.—Ed.]

Recent Publications.

Contributions to American Botany, No. xvi., Sereno Watson. Proceedings of the American Academy of Arts and Sciences, vol. xxiv., and now issued separately.

Mr. Watson's sixteenth contribution to North American Botany is mainly devoted to the enumeration of a collection of plants made by Dr. Edward Palmer, in 1887, in the neighborhood of Guaymas, in Mexico, at Muleje and Los Angeles Bay, in Lower California, and on the island of San Pedro Martin, with descriptions of new species and critical notes. In the short introduction to this paper Mr. Watson calls attention to the fact that "the peninsula of Lower California and that portion of the Mexican mainland which borders the intervening gulf, though reputed a sterile land, have always, whenever they have been explored, yielded a rich harvest of novelties to the botanical collector. Much, therefore, was expected from so keen and careful a collector as Dr. Palmer, when he undertook to spend a season at Guaymas, and from that point to explore such other places as might be accessible to him. Though the season of 1887 proved very unfavorable on account of its dryness, the result has, nevertheless, been very satisfactory. Of the 415 native species collected, eighty-nine species—or more than one-fifth—are wholly new, and many others are of great interest in various respects.

"The larger part of the collection was made about Guaymas