

PROTECTION OF ALPINE PLANTS.

EVERY one interested in alpine plants will be glad to hear that a society for their protection has been formed at Geneva. Before this time, attempts have been made by the governments of several Swiss cantons to protect plants, especially the edelweiss; which, however, is not a rare plant, and needs protection less than a host of its scarcer neighbors. Spain and Italy have already taken steps toward protecting their alpine floras; and the latter country hopes to obtain an edict from the government, which shall authorize the collection of rare plants, only by persons supplied with cards of permission.

The new society was founded in January, 1883, under the title 'L'association pour la protection des plantes.' Its formation at Geneva is particularly fitting; for, besides possessing the typical alpine flora, this place is the northern, and also the southern, limit of many plants. Being the great business and social centre, it is frequented by venders of the plants; so that any action there would strike at the principal source of drain: and, from its associations as the home of past and present eminent botanists, it is very suitable.

The aim of the society will be to check the wholesale collection of plants (and it is thought that the best means to accomplish this is to call the attention of the public to the injury done by the collection of plants with roots); to develop a taste for the cultivation of alpinists; and to induce gardeners to raise them, and sell them at a moderate price. These plans, especially the propagation in sale-gardens, have been approved by the Swiss and various other alpine clubs. Among the advocates of the plan of propagation is Alphonse de Candolle, who thinks that the action of the police and legal interference would merely raise the price of plants, and thus increase the incentive for their collection.

The custom of selling plants in the markets has not long been in vogue, yet long enough to show, that, unless effectually checked, the most injurious results will follow. It causes righteous indignation to all lovers of alpine plants to see the wholesale way in which, twice a week, the peasants (mostly the women) bring into Geneva and other markets these beautiful gems of the mountains, each in its season, — the rare rather than the commoner ones, as they naturally command a higher price. In fact, as has been said, one can make a botanical excursion without going out of the city. The flowers not sold soon fade and droop in the hot

sun, and are thrown aside as worthless; rarely do purchasers keep them longer than while they are in bloom: and thus are thousands of plants, roots and all, destroyed.

In the second bulletin of the society, a botanist writes that the societies for exchange of botanical specimens also offer much danger to rare species. The members, he says, are mostly amateurs, and obtain for their herbariums foreign plants by giving specimens of the rare plants of their own country; and this, in time, absorbs an immense quantity of specimens. He himself once communicated with one of these societies in order to obtain some rare plants. In return, an exorbitant list of the scarcest kinds was demanded, the quantity being frequently expressed as '*un char plein,*' '*le plus possible,*' etc. Besides these sources of drain, collectors from horticultural houses in England and Germany carry away great numbers of plants; professors and their pupils freely help themselves to rare species; 'botanical guides' aid in the devastation by directing collectors to rich localities; and vast quantities are collected for pharmaceutical purposes, or are sold as botanical albums or as herbariums.

Many localities, formerly rich in specimens, are now nearly or quite stripped of them; and it is time that these plants, perhaps the most universally attractive and admired in the world, should be protected from the disastrous war annually made upon them.

The society has attempted to check this abuse by spreading a knowledge of the danger by means of correspondence and publications. It has been suggested to post placards in Swiss hotels, requesting visitors not to collect roots, and informing them where they can purchase the same plants cultivated, in much better condition for transportation and future cultivation.

A most important result of the work of the society is, that a horticultural company has been formed for the cultivation and sale of such alpine plants as may be induced to grow in the valleys. Mr. Correvin, formerly director of the botanic garden of Geneva, and at present secretary of the Society for protection of plants, has been made superintendent of the establishment. It will raise plants from seed principally; and they can be purchased in pots, ready for transportation. There is no cause to fear for the success of the enterprise if the financial part proves prosperous, as the most attractive species of alpine Primulas, Campanulas, Dianthus, gentians, edelweiss, orchids, etc., have been successfully grown in Switzerland, in England, and some of them even in this country.

The new society now numbers some two hundred members, each of whom pays the small annual assessment of two francs. All persons are invited to join, and thus to assist this most worthy object, the expenses of which, especially in the way of publication, must be very considerable.

*THE DEEP-SEA CRUSTACEA DREDGED
BY THE TALISMAN.¹*

CRUSTACEA are distributed from the surface of the water to very great depths; and, at the exhibition of the Talisman collection, one may see

Islands, and which much resemble the *Portunus* of our coasts. On the other hand, they are very like species of the same genus, obtained at the Antilles, in the German ocean, and in the Mediterranean. The *Oxyrhynchi*, other triangular crustaceans of the group of *Brachyura*, are found lower than the last. *Lispognatus Thompsoni* was found between six hundred and fifteen hundred metres, on the Morocco coasts; and *Scyramathia Carpenteri*, in the same region, at twelve hundred metres. The former species had before been observed only in the German ocean; and the latter, north of Scotland and in the Mediterranean.

Crustaceans, intermediate in form between the brachyurans and macrurans, are found in abun-

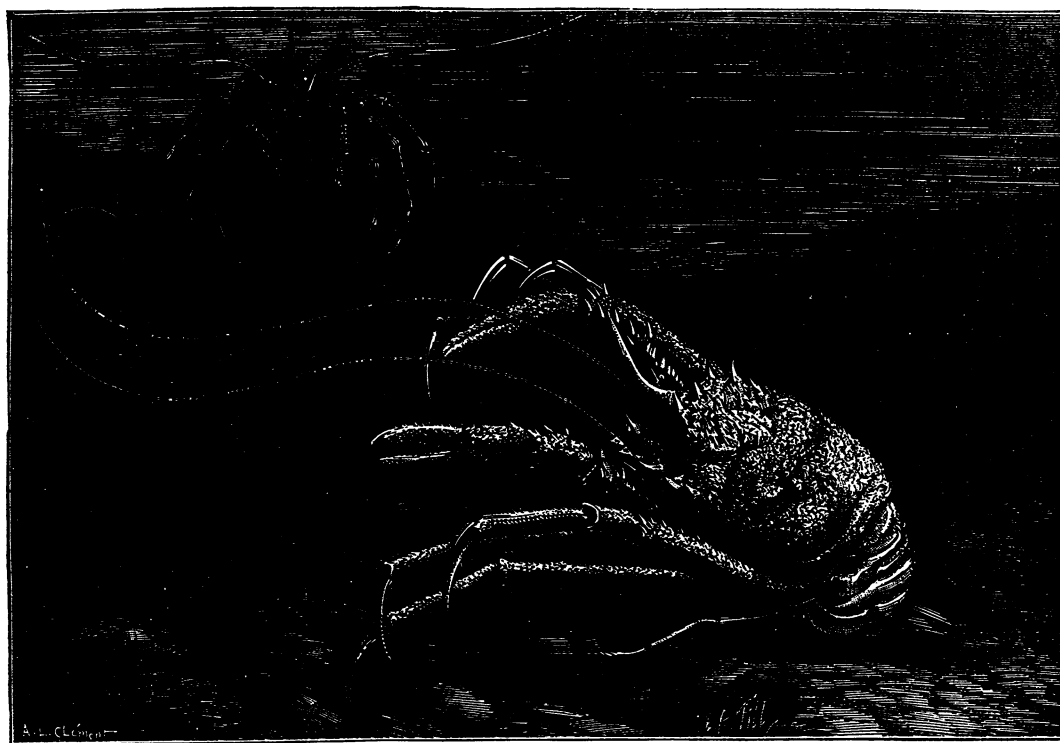


FIG. 1.—*GALATHODES ANTONII*, A BLIND CRUSTACEAN FROM A DEPTH OF 4,100 METRES. (NATURAL SIZE.)

Neptunus Sayi and *Nautilograpsus minutus* of the Sargasso, whose color they have assumed, side by side with other forms, as *Ethusa alba*, which is only found between four and five thousand metres below the surface. The swimming crustaceans, forming the group of *Brachyura*, are extremely rare at great depths. Certain forms of these crabs, taken on the Talisman, are remarkable for their geographical distribution, such as *Bathynectes*, found at four hundred and fifty and nine hundred and fifty metres, on the coasts of Morocco, and at the Cape Verde

dance in deep water. They seem to belong to genera between the two; and, in studying Crustacea, it is surprising to see types, which, taken separately, appear absolutely distinct, brought into contact by these intermediate forms. Thus the genera *Ethusa*, *Dorippe*, *Homola*, and *Dromia*, are linked together by many forms, with blended characteristics, rendering them difficult to classify. Several of the crustaceans are remarkable for their geographical distribution. Thus, on the coasts of Morocco, there was found a species of *Dicranomia*, noticed by Edwards in the Caribbean; and *Homola* of Cuvier, considered

¹ Translated from the French of H. FILHOL, in *La Nature*.