

through the bottle or through the cork (the corks, it should be remembered, were almost always covered with resin outside), was disposed of, as most of us believed for ever, by Jerdon thirty-two years ago, when he pointed out that liquors bottled in England were never impregnated. This view has been confirmed by later observers, amongst others by McMaster and Sterndale. When Indian-bottled beer or wine was tainted, the mischief was doubtless due to the use of dirty bottles or contaminated corks.

But even on subjects apart from zoology, Mr. Thornhill's information cannot always be trusted. Thus, on p. 213, he discusses the signification of the names Siwalik (or as he writes the word Shewalic) and Himalaya. Incidentally (p. 212) he states that the Siwaliks are of a different geological formation from the Himalayas, which is correct, and that they are considered to be of far greater antiquity, which is the reverse of the fact. Then he proceeds to remark that the name Siwalik is properly the designation of the entire Himalaya west of the Ganges, and as such is used invariably by the native historians; he quotes the story from one of the latter, that the term is derived from two Hindi words *sewa* and *lac* (thrice misprinted *lae*), meaning one and a quarter lakhs or 125,000, and that this denotes the number of peaks, and he states that Himalaya signifies the "Necklace of Snow." On questions of this kind Yule and Burnell's Glossary or "Hobson-Jobson" is a generally admitted authority, and a reference to it shows how incorrect Mr. Thornhill's account is. The origin of the term Siwalik is doubtful, but by the earlier native historians of India the name was not applied to the Himalayas at all, but to a tract of country much further to the southward; the story about 125,000 peaks is absurd, and the name Himalaya is derived, according to Sanscrit scholars, from *hima* snow and *alaya* an abode, and not from *hima* and *mala* a necklace.

One extract more must be given. Some of the subjects above mentioned may be regarded as matters of opinion, but the last quotation to be made betrays a want of acquaintance with elementary astronomy surprising in a man of good education. No comment is necessary except that all India is in the northern hemisphere, and that in the countries referred to in the work before us the pole star is from twenty-five to about thirty degrees above the horizon. At p. 100 there is the following paragraph; the italics are, of course, not in the original.

"The constellations are not quite the same as those we see in England: *those that in England lie far to the north are here invisible*, while we look on many that in England never rise above the southern horizon."

W. T. B.

ALPINE GARDENING.

Die Alpen Pflanzen in der Gartenkultur der Tiefländer. Ein Leitfaden für Gärtner und Gartenfreunde. Von Erich Wocke. Pp. xi + 257. (Berlin: Gustav Schmidt, 1898.)

THIS work is apparently written with a view to do for German gardeners and lovers of alpine flowers what Mr. William Robinson's "Alpine Flowers

for English Gardens" (published in 1870, but long since out of print) has accomplished for their British *confrères*. Indeed, the author has treated his subject on somewhat similar lines. He is head gardener at the Zürich Botanic Gardens, and enjoys the great advantage of being able to study alpine plants in their natural conditions.

Nowadays every one is more or less interested in the cultivation of alpine plants, but comparatively few know how to grow them successfully, or to make suitable miniature Alps—popularly known as "Rock Gardens"—so as to resemble natural conditions at low elevations. Time was when heaps of clinkers and boulders of bricks thrown together anyhow were proudly designated as "rockeries." People know more about these things now, and those who do not, but would like to, may peruse with advantage the treatise under notice.

Mr. Wocke has dealt with the cultivation, propagation, and most suitable treatment for Alpine plants in a thoroughly practical manner, and German gardeners at least can no longer complain of the want of a good book on this subject. The reader is made acquainted with the conditions under which the various plants thrive naturally, so that he may know precisely how to treat a plant coming from a certain region or elevation. Plants that love the glare of the sun, or the shadow of a rock, or the moist, mossy bank of the mountain torrent, obviously require somewhat different cultural treatment; and the most successful gardener is he who endeavours to imitate nature as closely as possible.

The construction of the rockery is a most important matter, and the author rightly deals with it at some length. As a rule, horizontal fissures for the roots of plants should be avoided, being contrary to the natural downward direction taken by these organs. The reader may obtain a good idea of what a rockery should be like from the one in the Royal Gardens, Kew, although here, curiously enough, the natural state of things has been cleverly turned upside down, without however, producing unpleasant effects. Thus on the summit of the rocks—or miniature Alps—the tallest plants are placed, while at the base the dwarf and stunted forms luxuriate. As Mr. Wocke points out, plants have a tendency to become dwarfer and more stunted in growth the higher they ascend the mountain side.

A valuable list of the best Alpine and sub-Alpine plants is given, with indications as to their native habitats, and the conditions most suitable for them under cultivation. In addition, special lists of plants adapted for particular situations are given, so that the reader may see at a glance which kinds will thrive in, say, moist or dry, warm or cool, sunny or shady positions.

The last chapter in the book is devoted to rectifying the nomenclature of certain more or less well-known plants, but that is a matter which concerns the botanist more than the gardener.

On the whole, Mr. Wocke's book, which is illustrated by twenty-two explanatory woodcuts and four photographs of rock gardens (at Newton Abbot, by the way), is a welcome addition to the literature on Alpine gardening. With one or two trifling printer's errors in the botanical names, the work bears traces of having been carefully edited.

JOHN WEATHERS.