

themselves. Where hundreds go in an evening for books it is impracticable to allow them access to the shelves of the library to select them; while in an ordinary bare list of titles it is impossible for them to judge which book in a column will be found the one most to their requirements.

Like Dr. Billings, our Newcastle librarian has fully worked out a most important branch of a subject catalogue. Magazine literature in these days has become far too important to be treated by either a thrifty librarian or an inquiring student as "fugitive" and "ephemeral." All the newest science now appears first in journals, and all leaders of thought give their first expression of it in magazines and reviews. In this new catalogue therefore we are much pleased to see that not only is each volume of all important periodicals entered separately with its list of articles, but, as we have said, under the head of each subject a reference is given to all of such articles as bear upon it. By this means students who have read a standard work published a few years ago upon any subject will be not only guided but stimulated into reading the latest researches or theories which these publications contain. It is perhaps going beyond our subject, but we cannot help noticing how convenient for this important purpose a card-catalogue at a library is; in which cards containing the subject of each article down to the last number of all the magazines have been dropped into their places. Such an arrangement would make many students feel a printed catalogue to be ancient by the time it was published.

The selection of books as a whole is admirable—though of course few selections have been made under such favourable circumstances. We are rather surprised in so large a list to note the absence of books like Boyd Dawkins's "Cave-Hunting" and "Early Man in Britain," Clifford's "Lectures and Essays," Croll's "Climate and Time," Moseley's "Naturalist on board the *Challenger*," and Sir Wyville Thomson's book; Hæckel's "History of Creation" and "Evolution of Man"; Schliemann's "Troy" and Cesnola's "Cyprus"; Wallace's "Geographical Distribution of Animals," &c. And if some of these are so costly as to be confined to the Reference Library, as is probably the case here, still we are sorry to miss Wallace's "Tropical Nature," and R. Jefferies ("The Gamekeeper at Home") with his series of books teaching men to open their eyes as they move about the fields and lanes.

The printing is a credit to both printer and editor. It is almost as funny as the "Ingoldsby Legends" to read "Life and Remains of *Dean Hook*," by Barham! but it is plainly a slip, and the smallest errors are very scattered.

The Rules and Regulations are clumsy to enforce, which indeed will probably not be attempted, at any rate for long. The annoyance of having to get a guarantor practically shuts out many whose hitherto idle life might have taken a fresh start if books had been put into their hands freely. We have been very pleased to see that several large libraries have done away with this irritating system without any loss of property, and it seems a step backwards when a new institution like this starts with more rigid and inconvenient rules than many others. Indicators are capital things in libraries to which each reader goes for his own book as at a university, but only very few of the hundreds who exchange books every night at a flourishing Free Library are at all able to work with

them. Children are the usual messengers, not high enough to consult an Indicator of 20,000 volumes. It is an unmerciful rule that borrowers should return their books personally, and a downright unreasonable one that every book must be returned in a fortnight (Rule 17), NOT to be re-issued the same day (Rule 16), although we are told (p. vi.) that three-volume works are issued complete. Few Free Library readers can get through 600 or 800 pages in a fortnight. And surely it was not necessary to threaten each person who consults the catalogue with imprisonment *with whipping* if he defaces a book! It may be necessary to make such Draconian laws, but they should be brought forward to intimidate gross offenders, not flourished in the face of all whom we wish to attract. Such severe rules repel sensitive people, while from their very familiarity they lose their effect on the careless.

OUR BOOK SHELF

Botanische Jahrbücher für Systematik Pflanzengeschichte und Pflanzengeographie. Herausgegeben von A. Engler. Erster Band, zweites Heft. (Leipzig: Wilhelm Engelmann, 1880.)

THIS part includes four papers. The first is by W. O. Focke, on the natural divisions and geographical distribution of the genus *Rubus*. The characters chiefly discussed are:—1. Mode of growth or habit. 2. Forms of leaf which are very numerous: the duration of the leaf being also variable. 3. Characters derived from the stipules, which are considered of great value. 4. Inflorescence; and 5. the Structure of the flower. The number and size of the parts of the calyx and corolla vary, as also the colour of the corolla. The stamens vary in closely allied species, and while most of the species are hermaphrodite, some are unisexual. The structure of the gynoecium is very varied, the number of carpels being five or six in some, as in *R. dalibarda*, or above 100, as in *R. rosafolius*. The hairs (trichomes) on the different parts of the plant are very numerous and remarkable for the variety of structure shown; no other group, except perhaps some Solanaceæ, approaching the *Rubi* in this particular. In regard to the geographical distribution the most important points are:—1. The characteristic difference in the *Rubi* of Eastern Asia and Europe. 2. The predominance of European forms in the Atlantic, and of East Asian forms on the Pacific side of America. 3. The occurrence of south Chinese and north Indian types in Mexico and Peru. These peculiarities Focke would explain on geological grounds.

The second paper is by Franz Buchenau on the distribution of *Juncaceæ* over the world. The author gives a complete list of the species of the genera *Juncus*: *Luzula*, *Rostkovia*, *Marsippospermum*, *Oxychloë*, *Distichia*, and *Prionium*, and a table showing their distribution into regions nearly corresponding to those of Grisebach.

Koehne, in the third paper, gives the first portion of a monograph of the *Lythraceæ*, including a key to twenty-one genera. He admits and then describes thirty-one species with numerous varieties of *Rotala* (*Ammania*, *Linn.*, *Benth.*, and *Hooker*).

The last paper is by Engler. Contributions to the knowledge of the *Araceæ*, in which he describes some new *Araceæ* from the Indian Archipelago and Madagascar, and also directs attention to the cultivation of *Zamioculcas Loddigesii* from the detached leaflets of the remarkable pinnate leaf of the plant. A swelling occurs at the base of the leaflet, and in a few days a small tuber is produced which develops two buds, below each of which roots are formed. The plant has been propagated in this way by Herr Hild of the Kiel Botanic Garden.