

Letters to the Editor.

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Co-operative Indexing of Periodical Literature.

THE following remarks refer to the periodical literature of science alone. The present lack of system in indexing this leads, we all know, to a huge waste of energy. If this could be saved by intelligent co-operation it might be set free for more profitable work. The leading article in NATURE of June 9 may help towards this both by the information that it gives and by that which it may elicit. For example, it recognises that a necessary preliminary is a survey of the periodicals in the libraries, and it states that for the United Kingdom such a survey was prepared in 1914-15 and is in MS. at the British Museum. This can scarcely have been within the knowledge of the Conjoint Board of Scientific Societies when it issued a recent appeal for this information to the scientific libraries of London, nor can it have been known to the Zoological Record Committee of the Zoological Society when it still more recently instructed its editor to make a similar survey for its own purposes. If NATURE can help forward the publication of a complete survey it will do good service.

The next step, so far as this country is concerned, will be to fill up gaps and to render all the periodical literature of any consequence accessible to the indexers. Your article does not touch on this, but it is surely more important for us that a paper should be accessible than that an index-slip for it should be sent from Bulgaria or Bolivia.

You consider the publication of abstracts before that of the index to be indefensible. This is not clear. It is possible to publish an abstract at the same time as (or even before) the original paper; the abstract is complete in itself, and, since it is in the nature of news, the sooner it is distributed the better. The index-slips can also be issued at the same time; but they have little meaning until arranged in an index, and the more complete the index is, and the larger (within limits) the period it covers, the better. Consequently, the index volume falls to be published later than the abstracts. The index material is of no use to the abstractor, and the indexer should not work from an abstract. Index and abstract are different in aim, in substance, and in mode of preparation. Their sole connection is that they deal with the same material, and both demand that material to be accessible. We return then to the primary need of completing our libraries as the best way of helping both parties.

This conclusion is opposed to your other suggestion, that the best way, so far as science is concerned, is to get index-slips from the Central Bureau of the International Catalogue of Scientific Literature. If this means a return to the attempt at furnishing slips through a number of national bureaux, it may be dismissed as discredited and now less workable than ever. If it means that the Central Bureau is to embark on all the work of collecting the literature, analysing it, and preparing the slips, may one ask if the proposer has considered whence the staff, offices, and funds are to be obtained?

Finally, what is the use of a *general* conference to determine the requirements of *special* branches of knowledge? Let each branch of science look after

its own abstracts and indexes. Probably this would best be done by the leading societies, as for some sciences it already is. Any society taking the lead in its own branch should receive ungrudging aid from the others who are not so ready to shoulder the burden. Let general international help be concentrated on supplying the first essential, namely, the publications that are to be indexed. And so we are back where we started—at the foundation that has to be laid firmly and broadly.

F. A. BATHER.

June 11.

IN considering the future of indexing, must not the method of indexing and abstracting depend on the purpose and future utility of abstracts? Do we want the means of manufacturing footnotes by unlimited references, or a guide in research? If for research, does a worker wish—or have time—to look up every reference, or does he want to get the sense of what has been done that will affect him? Can all classes of subjects be treated usefully on a uniform system, or is there any reason for doing so? Can a discrimination be expressed between papers that advance a subject, by new facts or new arrangements, and those that are inconclusive? Should an abstractor be entirely mechanical, or should any criticism be allowed?

A small experience in one department, of abstracting the produce of some twenty foreign periodicals (special and general) with a view to future utility, has led me to adopt the following standard:—

(1) State briefly every new fact and argument that leads to a definite result.

(2) Add references to any confirmatory or contradictory facts that have been omitted.

(3) Suggest if the paper is essential.

Such abstracts should be indexed at suitable intervals.

Some such standard seems likely to be the most useful for present reading and future research, in some subjects. How far would such a standard be desirable or applicable to different subjects? How far can individuals be found to make themselves responsible for dealing with their own special branch?

Too often, after struggling through thorn-brakes of German, or seas of Italian diffuseness, one emerges at the same point again, and finds that the whole is a rhetorical exercise. Should not workers be protected from such writing? Think of the future, with another century of accumulated writing, even at the present rate.

W. M. FLINDERS PETRIE.

I AM in entire sympathy with the leading article in NATURE of June 9 on the subject of the co-operative indexing of scientific communications to periodicals. If, however, any scheme is to be carried out efficiently competent workers must be employed, and they must be adequately paid, which is no easy matter in these days.

I cannot, however, subscribe on the scientific side to the assumption that there is any considerable amount of periodical literature consisting of "water-tight compartments containing homogeneous material" presenting "no special difficulties" in indexing. The different sciences are becoming more and more interdependent. For example, geological investigators are continually in need of results obtained in other spheres of work, such as chemistry, physics, astronomy, geodesics, botany, and zoology. Numerous facts important to geologists also occur scattered through technical mining publications. It is important that all these fields should be gleaned in the interests of