

well known to many from the original German publications, but the convenient and well illustrated summary here given will be of much value to metallurgists, being rich in suggestions bearing on the general problem of deformation. As has frequently been the case in recent years, the light alloys form the subject of a number of communications, perhaps the most striking of which is the description of the protection of magnesium and some of its alloys by the deposition of a film of selenium. The film is self-healing to a certain extent, and serves as a basis for paint or enamels, which it causes to adhere firmly. The 'fogging' of nickel is shown to be due to the action of sulphur compounds in the presence of moisture, a basic sulphate being the final product. It is largely inhibited by a preliminary formation of a thin film of sulphide.

A general discussion on the testing of castings brings out fundamental divergencies of view, some authorities holding that tests should be made on test pieces cast separately, whilst others hold that the test pieces should be cut from the actual casting. As the only conclusive test would involve the destruction of the casting, and even the best of castings will vary greatly in properties from one part to another, it would seem reasonable that the former plan should be adopted, and this view is held widely in Great Britain. The volume contains nearly twenty distinct communications.

*The Subject Index to Periodicals, 1930.* Issued by the Library Association. Pp. ix + 298. (London: The Library Association, 1932.) 70s.

THIS volume has been compiled under the direction of Mr. T. Rowland Powel and contains about 28,000 references. The headings are arranged in alphabetical order by subjects and are mainly chosen from the alphabetical subject headings of the Catalogue of the Library of Congress of the United States. Under each heading the articles are arranged alphabetically by the authors' names.

The range of subjects extends far beyond science even when taken in the widest sense, but fiction and verse are excluded. To restrict the size of the "Index", periodicals already indexed by certain well-known publications such as *Engineering Abstracts*, *Index Medicus*, *Journal of the Society of Dyers and Colourists*, *Revue de Géologie*, *Royal Meteorological Society's Bibliography*, *Science Abstracts* and *Textile Institute Journal* are not dealt with. Yet when these exceptions have been made, there remain no less than 545 English and American periodicals that have been indexed for this catalogue. In addition to these, 24 French, Belgian and Swiss, 20 German and Dutch, and two Italian periodicals have been dealt with.

In spite of attempts that have been made to induce authors to send their papers only to well recognised periodicals, it is still true that important work may be found hidden in publications the very names of which are unknown to most men of science. It is the function of the "Subject Index

to Periodicals" to reveal such hidden papers. Such work should be done by international co-operation, but until this is possible, the Library Association should receive every encouragement to continue this series of annual indexes.

*Johann Kepler 1571-1630: a Tercentenary Commemoration of his Life and Work.* Pp. xii + 133 + 2 plates. (Baltimore, Md.: The Williams and Wilkins Co.; London: Baillière, Tindall and Cox, 1931.) 13s. 6d. net.

THIS little book consists of three addresses given before the History of Science Society in joint session with the American Association for the Advancement of Science, together with a brief introduction by Sir Arthur Eddington and a bibliography of all the important works of Kepler. In "Kepler as an Astronomer", Dr. W. C. Rufus gives a clear and concise account of his subject which adds point to Eddington's picture of Kepler as the forerunner of the modern theoretical physicist. This address also contains general biographical particulars, in addition to a description of his work as an astronomer.

Kepler's mathematical achievements are perhaps not so well known, although they are of great importance—particularly in the infinitesimal calculus, the simplification of computations and the use of logarithms. These and other contributions to mathematics are described by Dr. D. J. Struik; while Kepler's philosophical and mystical outlook, which was so intimately related to his other work all through his life, is dealt with by Dr. E. H. Johnson.

In spite of some inevitable overlapping of subject matter, and the limitations imposed by its size and origin, the book is a useful contribution to the history of astronomy. The bibliography, in particular, compiled and annotated by F. E. Brasch, chief of the Smithsonian Division of the Library of Congress, should be most valuable.

*Flowerless Plants.* By Dr. Dukinfield Henry Scott. (Part 2 of An Introduction to Structural Botany.) Tenth edition, re-edited by F. T. Brooks. Pp. xvi + 332. (London: A. and C. Black, Ltd., 1932.) 7s. 6d. net.

THIS well-known book on the cryptogamic plants needs no introduction and the fact that it is now in its tenth edition speaks well for its success. This edition has been re-edited by Mr. F. T. Brooks, with the result that the new types *Peronospora*, *Saccharomyces* and *Euglena*, have been added. All three additions are important, representing a plant disease, a simple fungus of great economic importance, and a flagellate. *Cladotrix* has been omitted. The results of recent researches in Algæ and Fungi have been incorporated so far as is possible into the text. Written by Dr. Scott, and now revised with the advice and help of well-known specialists, the new edition of this book will continue to be an authoritative introduction to the subject.