

Onoranze a Leonardo Da Vinci nel Quinto Centenario della Nascita—Comitato Nazionale

Nr. 1: Leonardo Da Vinci: la Vita. Da Titina Strano. Pp. 84+9 plates. Nr. 2: l'Ingegneria Militare di Leonardo. Da Ignazio Calvi. Pp. 40+24 plates. Nr. 3: la Visione Scientifica di Leonardo Da Vinci. Da Carlo Zammattio. Pp. 46. Nr. 4: le Armi di Leonardo Da Vinci. Da Luigi Tursini. Pp. 14+13 plates. Nr. 5: la Botanica nel Pensiero di Leonardo. Da Alessandro Bazzardi. Pp. 40+17 plates. Nr. 6: Geografia e Geologia negli Scritti di Leonardo Da Vinci. Da Agostino Gianotti. Pp. 48+7 plates. Nr. 7: Leonardo Da Vinci e la Meccanica Tessile. Da Giovanni Strobino. Pp. 100. Nr. 8: l'Anatomia e la Fisiologia di Leonardo Da Vinci. Da Mario Senaldi. Pp. 64 (24 plates). Nr. 9: Programma e Idealità del Museo Nazionale della Scienza e della Tecnica "Leonardo Da Vinci". Da Guido Ucelli. Pp. 102 (45 plates). Nr. 10: Vinci Leonardo e la sua Famiglia. Da Renzo Cianchi. Pp. 106 (22 plates). Nr. 11: Leonardo Architetto e Urbanista. Da G. U. Arata. Pp. 182+6 plates. Nr. 12: il Pensiero Estetico di Leonardo Da Vinci. Pp. 30. (Milano: Museo Nazionale della Scienza e della Tecnica.)

TO readers of *Nature* the value of eleven monographs on the life and achievements of Leonardo da Vinci is limited by their being written in Italian and the fact that only Nos. 5, 7, 8 and 11 contain bibliographies. All but Nos. 3 and 12 are profusely illustrated, many of the pictures being of the lavishly produced models sponsored by the Italian Government before the Second World War and now re-built to furnish the Italian National Science Museum in Milan (see *Nature*, 172, 377; 1953). Others among the illustrations will be familiar to those who visited the Royal Academy exhibition in London last year, and it is particularly interesting to note the way in which Leonardo's scientific methods of observation illumine his artistic work on physiology, botany, geology and geography. The range of his interests is astonishing, but there is still doubt as to how far his recordings were of his own original devices and, if so, how far they actually influenced future developments. Pamphlet No. 7 on textile machinery traces devices similar to Leonardo's right down to those in modern machines. Less than justice is done to his work on aeronautics in this series, although it is probably true to say that no evidence exists to show that he had the slightest influence on the future, and some of his ideas were fundamentally unsound. Pamphlet No. 9 is largely an illustrated account of science museums in other countries designed to stimulate Italian interest in the Museum newly raised to Leonardo's honour in Milan.

Physics

By Prof. Noel C. Little. Pp. viii+648. (Boston: D. C. Heath and Company; London: George G. Harrap and Co., Ltd., 1953.) 35s.

THIS course represents a decided break from the traditional approach to physics, for it is organized around five fundamental concepts and five types of phenomena. Thus the watertight compartments of heat, light and so on have been broken down, and the subject is presented as a unified whole. Now all will agree that this method has undoubted merits; but the real test of its efficacy is whether it will be more beneficial to students than the more orthodox teaching. Apparently the author and his colleagues have used the course for many years and are satisfied

with the results; so far as British schools are concerned, one feels that it would probably take a long time to establish such a departure from the orthodox method, whether desirable or not.

For an elementary text tradition has again been broken by the use of the m.k.s. system (probably the most useful) rather than the c.g.s. system of units, while the British units are confined to the gravitational system; it will come as a shock to the uninitiated student that the unit of force is the 'newton', not the 'dyne'.

The course is evidently well planned and excellently presented; the mathematics involved is quite simple, and many typical questions are worked out in the text. It is sad, however, to find that the term 'electromotance' supersedes our old friend 'electromotive force'; in spite of this, though, one suspects that students and engineers will continue to speak of 'e.m.f.'.

Geometrical Optics

By Dr. C. Curry. Pp. viii+173. (London: Edward Arnold and Co., 1953.) 21s. net.

ALTHOUGH the reviewer is not wholly satisfied that it is necessary or desirable to devote a separate book to geometrical optics at this stage of the work, yet the author, Dr. C. Curry, as a result of his experience, is undoubtedly convinced that such a book is necessary. His aim is to give a balanced account of the subject suitable for students in the two years before a degree examination, at the same time keeping in view the underlying physical principles and the ultimate application to optical instruments and their design.

It must be said at once that Dr. Curry has achieved his aim very satisfactorily, and he has studiously avoided the temptation to lengthen the book by developing certain sections to a more advanced level. The explanations are very clear and easily followed, and if any section can be singled out it is that on the aberration of optical systems, which is particularly well done.

Certain departures from the usual nomenclature have been made. For example, μ is used exclusively for relative refractive index, while the time-honoured u and v for object and image distances have disappeared. The so-called new Cartesian sign convention is used as being most in line with advanced optical practice, and in this connexion dare we hope that one day just one convention will be adopted for universal use?

River Purification

A Legal and Scientific Review of the Last 100 Years. By F. T. K. Pentelow. (Being the Buckland Lectures for 1952.) Pp. viii+63. (London: Edward Arnold and Co., Ltd., 1953.) 5s. net.

THIS small volume contains the text of the three Buckland Lectures for 1952, which were delivered by F. T. K. Pentelow, chief inspector of salmon and freshwater fisheries in the Fisheries Department of the Ministry of Agriculture and Fisheries. The first lecture—on the development of the law affecting pollution of rivers—is an admirable summary, with a useful bibliography of Acts of Parliament. The remaining two lectures deal with the effect of pollution on streams and with methods of treating waste waters; they are necessarily brief, are addressed primarily to river authorities concerned with freshwater fisheries, and give a sound account of the elements of the subject.

B. A. S.