were differentiated from the rest by means of a star attached to their names and designated the "leading men of science." It is now proposed to continue this class distinction in a new edition of the directory.

I do not know of any useful purpose that has been served by the formation of a superior class of scientists, but I do know that it has created no end of ill feeling among those who have been excluded. Moreover, if it is useful to "star" one thousand and designate them the "leading men of science," why would it not be useful to "double star" five hundred of these as super leaders and "triple star" one hundred as super, super leaders, etc.?

It seems to me that in a democracy class distinction should everywhere be discouraged as much as possible and that there should be no fixed differentiation into classes in any group of individuals without the sanction of the group. I therefore suggest that the continuation of "starring" of scientists in the directory be put to a vote of those involved.

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SCIENTIFIC BOOKS

LIGHT

Chemical Aspects of Light. By E. J. BOWEN. 191 pages. New York: Oxford University Press. January, 1943. $4.00.

THIS little book covers a wide range of subject-matter and is "intended only for the student who, whether by youth, age or other cause, is not equipped to participate freely in the mathematical struggles by which formal and quantitative solutions of problems are obtained." It is addressed therefore to those who, not equipped to make new advances themselves, "wish to know something of a branch of contemporary science." Even with mathematics at a minimum, both youth and age will find the book hard reading in places, probably by reason of the great compression of material in the text. The first chapter on waves and matter, 32 pages long, has paragraphs on linearly, circularly and elliptically polarized waves, the electromagnetic theory of Maxwell, the electronic theory of matter, interference, diffraction, resolving power of optical instruments, the electron microscope, lenses, double refraction or birefringence, fluorescence, optical activity, strains in materials, liquid crystals, streaming double refraction in colloidal systems, Tyndall light scattering, depolarization, reflection, absorption and transmission, dispersion and refraction, the photo-electric effect, Rayleigh scattering, glossy and matt surfaces, color of pigments and nephelometry. It makes a concentrated diet for any reader.

Ten chapters follow the first and expand some of the topics. Chapter 3, with 47 pages on the absorption and emission of light, is a good summary of atomic and molecular spectra. Succeeding chapters treat fluorescence, luminescence of solids, photochemical reactions, photosynthesis (perhaps the evidence from radioactive carbon should have been included in this), the photographic process (a brief, compact survey of the essentials in 8 pages), the reactions of the retina, photo-cells and chemiluminescence. There are 17 pages of appendices on light filters, photochemical technique and phosphors. There are three pages of bibliography and a Table of Constants. In this latter the value for the velocity of light in vacuo $= 2.99796 \times 10^{10}$ cm per sec, should be, according to Birge, 2.99776. If youth and age find the book difficult reading the trained chemist, not specialist in this field, can find here a trustworthy summary of the present state of the science. The format, printing, paper and binding of the book are a tribute to the Clarendon Press in the third year of total war.

HUGH S. TAYLOR

EMBRYOLOGY

The Embryological Treatises of Hieronymus Fabricius of Aquadependente. The Formation of the Egg and of the Chick (De Formatione Ovi et Pulli). The Formed Fetus (De Formato Foetu). A facsimile edition, with an introduction, a translation and a commentary. By HOWARD B. ADELMANN. Ithaca, N. Y.: Cornell University Press. xxiv + 883 pp. 46 plates. 1942. $12.50.

JEROME FABRIZIO, born at Aquadependente, was professor of anatomy at Padua from 1565 to 1613. In this chair he was the third of the distinguished successors of Andreas Vesalius. His importance as a teacher is sufficiently attested by the fact that his greatest pupil, William Harvey, not only obtained one of the most important clues for his discovery of the circulation of the blood from Fabricius's description of the valves of the veins, but also founded his lifelong studies of embryology upon those of his master.

Fabricius himself was the first since the time of Aristotle to study embryology from a comparative point of view. Through his lectures and his two books on animal development he raised embryology to the rank of an independent science. The first of these books, that on the formed fetus, appeared in 1604; the second, which deals with the embryology of the chick, was published after his death, in 1621. In spite of their importance, neither was ever translated into any modern language, and it is now more than