BOOK REVIEWS

Pediatric Optometry, Jerome Rosner; Butterworth Inc., U.S.A., 1982, 458 pp, hard cover, w/illus., $39.95 (U.S.).

Finally, a textbook written by an optometrist specifically for optometrists! This reference book covers all aspects of diagnostic services and almost all treatment services for the management of the pediatric patient.

The textbook is divided into two sections. The first part covers the examination procedures and diagnoses. Each chapter starts with a question, eg., Why is the patient seeking services? (ch. 1) How clearly does the patient see? (ch. 3) What is the patient's binocular status? (ch. 6).

The second part reviews the treatment procedures available for such diagnoses such as ametropia, strabismus, nystagmus, binocular vision and perceptual skills dysfunctions.

The author describes various regimens of treatment procedures and employs a problem-solving orientation throughout the book. The application of "flow charts" aids immensely in working through the "chief complaint" to final resolution and recommendations.

Dr. Rosner's experience in both private and institutional practice has provided him with the expertise to write such a comprehensive text. It offers a single source of clinical information for the practitioner. For the optometric student, general optometrist or pediatric optometrist, this text provides a wealth of information and would prove a valuable addition to one's professional library.

Joseph Mittelman, O.D., FAAO.

Dictionnaire de la Science de la Vision — Michel Millodot, Ph.D. publié par L'Institut et Centre d'Optométrie, Paris, 1982, 307 pages.

Tout dictionnaire est un outil de travail pour le lecteur, l'écrivain et le chercheur. Il y en a pour tous les goûts, pour toutes les disciplines et branches de la science. Quand un nouveau dictionnaire vient combler une lacune dans la litérature d'une discipline il y a raison de se réjouir. Ainsi donc la publication du *Dictionnaire de la Science de la Vision* du Dr. Millodot vient combler un vide dans la litérature optométrique professionnelle du coté francophone.

Le volume comprend 2060 termes répartis inégalement sur les sujets d'optométrie, d'anatomie, physiologie, pathologie et et maladies, optique et lentilles ophtalmiques, instruments, tests et un nombre de noms d'individus ayant contribué à la science de la vision.

Chaque terme est numéroté selon sa position alphabétique qu'il occupe sous la lettre appropriée de l'alphabète. Ainsi, sous la lettre "O" il y a 281 termes, sous "J" on ne trouve que 8. Chaque terme est suivi de la traduction anglaise mais la définition ou la description n'est qu'en français. Au besoin il y a référence à un autre terme pour une explication plus complète, e.g. — Fixation (disparité de) voir disparité.

Le volume se termine par un index de termes anglais correspondants aux termes français. Le terme anglais est suivi du numéro du terme français permettant ainsi de retrouver la traduction rapidement. e.g. Wilson's disease M37 — le terme français sera retrouvé sous la lettre "M", le 37ième entré.

Même si ce volume ne contient pas le nombre de termes contenus dans le *Dictionary of Visual Science,* il est plus qu'adéquat pour les besoins quotidiens du practicien, de l'étudiant ou de l'auteur néophyte. C'est un travail qui devrait prendre place à coté du Larousse et du Harrap.

La profession est en dette envers l'auteur pour une contribution et un outil de travail si précieux.

G. Maurice Belanger

Clinical Medicine for the Occupational Physician by Michael V. Alderman and Marshall J. Hanley, Published by Marcel Dekker, Inc., New York and Basel. 1982.

The subject matter of clinical medicine for the occupational physician, as seen by Michael V. Alderman and Marshall J. Hanley, divides into seven sections. Section I, *Basic Orientation for Practice*, surveys the history of occupational medicine in the USA, and the manner in which the work of occupational physicians is prescribed by federal regulations. Ethics, and epidemiology and biostatistics complete the orientation. II, *The Worker/Patient*, deals with working women, elderly workers, and disabled workers. III, *The Occupational Health Program*, tackles planning and evaluation of an occupational health program, health promotion and screening, functional assessment for heavy physical labour, and the health of travellers. IV, *Alcoholism and Mental Illness*, opens up alcohol abuse and stress and mental illness. V confines itself to one chapter on approaches to occupational cancer; VI also has but a single topic: occupational dermatoses.

VII, *Major Clinical Problems*, focussed for physicians in industry, comprises musculoskeletal disorders, gastrointestinal and hepatic concerns, occupational pulmonary disorders, hypertension, cardiovascular and neurologic diseases of the ear, nose and throat.

In evaluating this book, I was influenced by my sense that occupational medicine is in an uncomfortable state, torn between contrasting orientations. This book pertains to one of the orientations, that of the practice of clinical medicine within the framework of employment. Leon J. Warshaw, in the foreword, points out that occupational medicine now operates in the hitherto taboo sphere of non-occupational health problems detected in connection with employment. Robert Murray, a noted British practitioner of occupational medicine, speaks of the *effects of health on work*; health in work, a variation on the Murray theme, is largely what this book is about.

By contrast, *the effects of work on health* has been the driving force of occupational medicine for the past century plus, paralleling the drive towards public health and hygiene over the same period.

There can be no doubt that managers and workers alike expect workplace physicians to practice clinical medicine. But the historical criticism has always been that workplace physicians who concern themselves overmuch with non-occupational disease might run the risk of missing occupational disease. Worse still, physicians concerned with individuals rather than groups might be criticised politically for being tools of management concerned to seek out the causes of disease among the vulnerabilities of individuals rather than the toxins of the work place. This book could certainly be criticised on those grounds, but it is a book whose purpose have to be considered all the same.

From a clinical point of view, the book has patchy coverage, as it acknowledges. (For example, there is almost nothing on eyes!) The orientation is exclusively towards the practice of clinical medicine in the USA. Its patchiness reflects the incoherence probably inevitable with a multi-author text addressed to a subject which in any case lacks much in the way of intellectual structure — how can a subject have structure when it is struggling with dichotomy disease?

For all its shortcomings, I think this book important, and even a bit courageous. It ought to be useful to occupational physicians who are out of range of refresher courses and the like. It could also be useful to any physician who feels vaguely guilty about practicing the kind of occupational medicine which concerns itself with health in work. For that reason, the book should be explored by seasoned practitioners of occupational medicine because they, too, may be experiencing the debilitating influence of dichotomy disease, and they may be influential enough to bring about the refocussing treatment which the subject so badly needs. The middle of the spectrum is always the position most tempting for those seeking compromise; for occupational medicine this may very well be the right place to look, and *Clinical Medicine for the Occupational Physician* may be pointing us that way.

Gordon Atherley, President & C.E.O.
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Optics in Vision: Foundations of visual optics and associated computations (second edition), by Henri Obstfeld, Butterworth & Co. (Publishers) Ltd., London, 1982. 411 pp. illus.

There seems to be an unwritten rule that no lecturer ever finds a textbook which completely meets the requirements for his course. This appears to have been Henri Obstfeld's rationale for writing *Optics in Vision.* Topics considered include schematic and reduced eye models for emmetropia and ametropia, image

formation in uncorrected and corrected ametropia, calculation of retinal image size, accommodation, presbyopia, aphakia, astigmatism, applications of Newton's equation, effects of spectacle correction on convergence demand, optics of the Purkinje images, vision with contact lenses and vision underwater. The book ends with a brief (2½ pages) chapter which describes conditions which give rise to accommodation, rendering an emmetropic eye apparently myopic (e.g. instrument myopia).

The text is well-supplemented by the many line drawings and worked examples. Many chapters include exercises for the reader and sample questions from previous examinations set by various British organizations such as the Association of Dispensing Opticians, British Optical Association, etc.. The many brief chapters devoted to calculation of retinal image size for specific refractive states, both uncorrected, and corrected with spectacle lenses, provide the student and busy practitioner with a cookbook-style guide to solving these problems. The chapters on vision with contact lenses and underwater make excellent reading on subjects which should be of more than passing interest to vision care providers. The role of blur circles in the perception of image size is clearly described.

If this book has any faults, they are due to the author's attempt to discuss such a wide variety of topics within the confines of a text short enough to be used in a one or two-term course on physiological optics. Obstfeld has taken a "bones without the meat" approach, introducing concepts with a minimum of explanation or derivation. The physiological and psychological aspects of vision are given relatively little attention — a serious shortcoming in a book which is intended "to relate the principles of geometrical optics to visual optics", as stated in the preface. Nevertheless, there are attempts to relate the calculations to clinical situations such as the effect of spectacle correction on the need for an addition at near, and the use of rigid vs. hydrogel contact lenses and their effects on vision and the eye as the lens fit changes with time.

On the whole, *Optics in Vision* is a cursory overview of applications of geometrical optics to certain aspects of physiological optics. As such, it is of limited value to the educator as a text book, but may provide a good review of applied optics for the student and practitioner.

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The History of the British Optical Association 1895-1978 by Margaret Mitchell, M.A., published by the British Optical Association and the British Optical Association Foundation, Nelson Brothers of Chorley, 1982. 308 pages, illustrated.

Pride in one's family, city, country or profession is a healthy and very human trait. Providing it is not tinted with arrogance and self-conceit, it can be an important factor in motivating one to greater accomplishments.

Pride is rooted in history, for one cannot take pride in family, city, country or profession unless one is fully aware of the accomplishments of those who preceded us.

Such must have been the thoughts of Margaret Mitchell as she collected, collated and planned her unique book on the history of the British Optical Association.

In a mere 300 pages, she has succeeded in expounding the formation, progress, struggles and achievements of those men who founded the British Optical Association and guided it through its many crises and battles to reach the high level of academic professional and social status the profession enjoys today. One cannot but be inspired by the reading of its history. One cannot be otherwise than proud to belong to this august body, the ultimate outcome of the efforts of so many dedicated, and farsighted individuals, from its founders to the present day leaders and educators.

The book has 24 chapters of varying length. Following a general comment on the evolution of ophthalmic optics and spectacles and the specific conditions leading to the formation of the association, the book covers the following:

1. legislative efforts culminating in legal status, registration and entry into the National Health Service.
2. education and its importance as the cornerstone for professional growth and development, qualifying examinations, the founding and development of its institutions, including the London Refraction Hospital and its several schools, all but one of which are now integrated into the university system.
3. relations with medicine and ophthalmology.
4. the various optical associations in existence in Britain and their cooperation eventually leading to the amalgamation of all into the British College of Ophthalmic Opticians (optometrists). This brought about the demise of the BOA as an examining and licensing body.
5. the physical assets: the national office and its changes of address, its world-renowned library and museum.
6. the various journals and publications which it has sponsored.
7. the work, efforts and achievements of the five permanent secretaries and a number of its more outstanding members who contributed to the educational level and to the political and social organization of the profession. Not to be overlooked, the untiring members of the staff over its many years.
8. the role of members in the development of the International Optical and Optometric League.
9. finally, the decision to create a College of Optometrists and the demise of the BOA as a licensing and examining body.

The book is well printed on matt paper and reads well. It is enhanced by numerous illustrations of historical interest, such as photographs of important individuals or groups, extracts of correspondence, old documents and advertisements, pictures of the library and the various buildings which housed the BOA over the years, of old spectacles, equipment and other optical lore.

There is no subject index as such, but the chapter contents, listed in the table of contents, are detailed enough to permit the locating of some subject matter (but not the details pertaining to specific topics). One would need to read several pages to locate them. This does not, however, diminish the historical and documentary value of the book.

To anyone interested in the development of worldwide Optometry, this book will serve as a guide because the difficulties encountered in Britain are worldwide and differ only in emphasis or degree. Education, legislation and unselfish dedication to the cause are the building blocks to success. The example of the British Optical Association should give heart to those who are just emerging as a profession in so many countries of the world.

G. Maurice Belanger, Editor

Drug-Induced Ocular Side Effects and Drug Interactions. 2nd Edition. By F.T. Fraunfelder and S. Martha Meyer. Published by Lea & Febiger, Philadelphia, 1982, $36.00 in Canada, 500 pp. plus index.

All active drugs produce more than one effect. Drugs may produce unexpected results because of the number of drugs employed, the variety of conditions in which they are used, their interactions with each other, and patient variables. Unless someone maintains a Registry of Drug-Induced Ocular Side Effects, the task of keeping track of the potential complications would be impossible. Dr. Fraunfelder and his collaborators maintain the Registry and complete the next step which is summarizing the data in a usable form in this book.

There are two conflicting ways to look at ocular side effects. One is to say that most drug adverse effects are not reported so one sees only the tip of the iceberg. The other is to point out that many of the reported effects are the result of coincidence and represent neither a predictable hazard nor a pharmacological action of the drug in question. A person could have a myocardial infarction after brushing his teeth and few would claim this to be an adverse effect of the toothpaste.

One point which bothers me is that, for a given drug, every reported "effect" is listed; for example, we find both miosis and mydriasis listed for pilocarpine. One could argue that miosis is the expected result of a direct-acting muscarinic agent and mydriasis as a response must be so exceedingly rare as to invite confusion and to dilute the utility of the listing.

Once again the evidence indicates the relative safety of cyclopentolate and tropicamide. There seem to be no significant adverse systemic reactions from topical application of the usual doses of tropicamide. The authors conclude: "Major ocular effects due to these drugs are quite rare".

A comparison of the second edition with the first shows that the second is 174 pages longer. In the listing of 140 kinds of possible ocular effects the second edition adds about 30 new classifications while dropping about 5 from the older list.

In each chapter of the new edition some new references are provided and older ones updated.

The ready reference features of this book are its strong points. It provides both the generic and the proprietary names that are used in most countries around the world. The tabulation of potential drug interactions is another valuable contribution of the authors. Side effects associated with both systemic and topical administration of each drug are listed and the authors summarize the risks in a statement of clinical significance.

The publisher too deserves credit for the easier-to-read typeface in the new edition.

Drug-Induced Ocular Side Effects and Drug Interactions is a very practical handbook for the optometrist. Relatively little attention is given to contact lens care products or even to the preservatives in ophthalmic solutions.

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Visual Fields — A Basis for Efficient Investigation by C.H. Bedwell, Published by Butterworth's Scientific, London, 1982, 219 pages.

The recent introduction of automated, or semi-automated instruments for testing the visual field has made it possible for the practitioner to reduce the time spent and increase the accuracy of results when compared to traditional, more laborious methods of perimetry. The author, whose background is in visual science, engineering and visual ergonomics, has prepared a text which includes in its twenty-five chapters, an overview of these developments.

The first several chapters address the importance of testing the visual field and provide an historical review of the development of traditional instrumentation such as the arc perimeter, Bjerrum screen, and Goldmann perimeter. The concepts of kinetic and static (both single and multiple presentation) perimetry are adequately covered, including the relative advantages and disadvantages of each method.

The next chapters are devoted to descriptions of field screening and testing devices ranging from the Harrington-Flocks screener, introduced in 1954, to the latest computer-controlled instruments such as the Octopus and Perimetron. Descriptions of each instrument are concise, giving necessary historical background, design rationale, method of operation, instrument features, limitations, and, in some cases, suggestions for improving the instrument's capabilities. A large section is devoted to the Friedmann Visual Field Analyser (FVFA) Mark I and Mark II, which the author co-developed.

Following the descriptions of individual instruments there is a group of fairly detailed chapters reviewing the photometric and physiological aspects of field investigation. The next chapters illustrate how these principles were applied in the development of the FVFA. He describes performance characteristics of the FVFA including summaries of several clinical studies. There is also a brief chapter on the clinical evaluation of automated perimeters such as the Fieldmaster and AutoField. The final chapter concludes that single and multiple pattern static perimeters are both effective and efficient for investigating the visual field. In many cases, the instruments have proven to be superior to the laborious traditional methods with tangent screen or manual perimeter.

Although this book is informative, adequately referenced and generally quite readable, I have some reservations in recommending it unconditionally. It cannot be considered as an introductory or basic reference textbook on visual fields: there are no sections on visual pathway anatomy or field interpretation. There is little information that could be adapted to the basic office tangent screen. Also, there is a disproportionate emphasis placed on the Friedmann Visual Field Analyser, which the author uses to illustrate most features of exemplary instrument design. I am, however, willing to forgive this indulgence as his material is well-documented and he does discuss some of the instrument's shortcomings.

For the practitioner considering the purchase of one of the newer field testing instruments, this book will provide much of the material necessary to make a decision based on sound design principles and clinical performance, rather than on promotional information. This volume will also prove useful for those interested in an up-to-date overview of field testing theory and recent developments in instrumentation.

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Vision Care News from P. 99

Ciba Bi-Soft Contact Lenses

Ciba has recently introduced a newly-designed bifocal soft contact lens. It has two concentric visual zones and, at present, it is available from plano to +6.00D distance powers and add of +1.50D, +2.00D, +2.50D. For further details, write:

Ciba Vision Care Inc.
2121 Argentia Road
Mississauga, Ontario
L5N 1V8

Nic Optronics CS 2000

The CS 2000 was designed for contrast sensitivity testing with fast, efficient results. It gives quantitative information about the integrity of the visual system from the cornea to the cortex. The results from the testing have many applications, including: differentially diagnosing glaucoma and ocular hypertension; evaluating contact lens performance; measuring loss of visual function due to cataract; tracking recovery from optic neuritis; classifying amblyopes; detecting macular disease and many other applications. For complete information, write:

Nicolet Instrument Canada Inc.
1 - 1200 Aerowood Drive
Mississauga, Ontario
L4W 2S7

New "Old" Product from Zeiss

Readers recalling our last issue's cover will be interested to learn that Carl Zeiss Ltd. has produced a very limited number of replicas of its brass microscope for collectors (as pictured on the C.J.O. cover, March, 1983). Complete details can be obtained from:

G.A. Wheeler
Sales & Marketing Manager
Carl Zeiss Canada Ltd.
45 Valleybrook Drive
Don Mills, Ontario
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