group of papers, and 'Ontogeny of the Lung' that of the second, followed by 'The Gas-liquid Interface', 'Intrauterine Gas Exchange' and 'The Start of Breathing'.

Amongst the first group, H. Rahn's contribution is something of a tour de force: he compared the gill, swimbladder, and placenta as gas-exchangers, predicting mathematically the effect that changes of temperature must have on blood pH, and then confirming the validity of his equations by observation on the turtle, bullfrog, and carp. G. M. Hughes, discussing 'Evolution Between Air and Water', provides much additional information about gas exchange in animals such as amphibia which use the skin for respiration.

J. A. Clements led the discussion on the alveolar lung layer, devoting particular attention to the dynamics of the production and disappearance of surfactant, and to the interesting deductions which can be drawn from the temperature dependency of these processes.

These three contributions particularly attracted the reviewer, but doubtless others would pick out a different selection, for the standard of the papers is of the highest. The reported discussions are of the same quality, and provide a great deal of factual information not readily to be found elsewhere.

Esoteric though a discussion of asphyxia in the African catfish may at first sight seem to the practising paediatrician with, let us say, a baby with respiratory distress on his hands, fundamental studies on lung physiology, such as are presented in this book, may well be the means by which new lines of thought eventually lead to practical advances in therapy.


This is a comprehensive book, beautifully produced on fine paper, and with numerous illustrations, chiefly of x-ray films about 4 × 2 in. in size, some slightly larger.

The authors cover most respiratory conditions likely to occur in childhood and many of extreme rarity. A short description is given of each condition with the x-ray findings, differential diagnosis, and treatment.

There is no doubt that a great deal of work has gone into the compiling of this book and that as a reference volume it could well be valuable to the student who wishes to have a list of conditions that may occur in any particular part of the lung. Each chapter is followed by a bibliography and a fair share of these come from this country though most are by United States workers.

On the reverse side of the picture, so much information is included that little of it is of sufficient detail to be of any value to the clinician. The sections on treatment, for instance, are so superficial as to be almost useless and in some cases are inaccurate or misleading. The relative amount of space given to the more common conditions and to very rare conditions seems somewhat undiscriminating.

The over-all impression given by this fine volume is of a Christmas gift book which includes everything but which has not been designed with any particular end in view except to show off a wide range of illustrations and perhaps to help any student with a good enough memory in the appropriate answers to multiple choice questions.


This book is the first of a series of volumes on paediatric radiology aimed at 'placing emphasis on some areas of current interest' and 'reflecting present thinking and approach' without any attempt at comprehensive cover, and is in fact a collection of contributions from a worldwide scatter of radiologists.

It comprises a wide range of subjects including techniques, radiation protection, specific topics such as pulmonary listeriosis, pneumocystis pneumonia, and more broadly based articles such as the causes of aspiration pneumonia, the problem of recurrent lung disease, and physical and chemical trauma.

One singular chapter on 'Respiratory distress syndrome' consists of a description of the entities which may be listed under this heading in the newborn, followed by comments from various authorities and a final word from the original contributor.

The book contains a lot of valuable information about both rare and common lung diseases and associated predisposing conditions, together with a variety of outlooks and individual methods of approach which are both informative and stimulating.

The illustrations are of excellent quality, there are many references at the end of chapters, and the index is comprehensive. The book is not aimed at students but is a valuable addition to the more advanced library and of interest to clinicians as well as radiologists.

One is perhaps struck by the rather loose terminology still in use in this relatively exact field of definition—words such as 'infiltration', 'overaeration', 'pneumonitis', 'peribronchial thickening', which have never been clearly defined and may mean different things to different people. Should not radiologists, being dealers in shadows, identify shadow patterns, and not deal in morbid anatomical terms? How, for instance, can one be sure from a radiograph that an area of 'consolidation' contains bacteria? May one refer to it as 'pneumonia' without this information?


This book, written by a young colleague of the late Homer Smith, is intended for medical students, house officers, and physicians. It is clearly and, on the whole, concisely written, and contains a wealth of helpful