The main argument is that both fluids have a tripartite origin:

(a) There is a primary secretion of a fluid of a characteristic composition by the cells of the ciliary epithelium or the choroid plexuses producing a secretory flow mechanism.

(b) This is supplemented by a diffusion mechanism involving a two-way transfer of water and dissolved substances, mainly between the vessels of the iris and the chambers of the eye, or between the capillaries of the glia and the central nervous parenchyma into the ventricles and subarachnoid spaces.

(c) In addition, there is an unselective flow from the blood-stream through a limited number of large intracellular pores which constitute the sole mode of entry of large molecules.

The argument running through the book is interwoven with this hypothesis; other hypotheses receive relatively short shrift or are "hopelessly wrong" (as many of them are). The truth, of course, is that, despite the enormous amount of work which has been expended on these questions, despite the immense increase in the accuracy of the techniques of to-day compared even with 20 years ago, the available methods of study are still too crude to warrant any final conclusion in a subject full of complicated factors the assessment of which is far beyond our present knowledge. But the hypothesis is attractive, and there is much to be said for it. The excellence of the writing, the ability of the presentation of the argument, and the persuasiveness of the logic, however, should put the reader on his guard lest he believe that the last word has been said.

The errors in the book are few. It is stated that the inner wall of the canal of Schlemm is without stomata, to the neglect of recent histological and radiographic evidence that pores of a diameter between 1 and 2 μ apparently exist. Retinal oedema is frequently visible ophthalmoscopically beyond the confines of the optic disc. But none of them affects the main argument.

On the whole the book is most valuable. The survey of the literature is very complete, and the bibliographies are full. Moreover, although dealing with a highly technical and specialized subject, the book is very readable; altogether an excellent production representing much industry. But—one definite quarrel—the subject with which it deals cannot be admitted in this Journal at any rate, to be "a backwater of physiology"; surely l'eau de vie de l'oeil is one of the central problems of the universe. But the author has partially atoned for this obvious lack of proportion by consistently placing the ocular fluid before the other—in introducing the neurologist to the ophthalmologist.


The sixth volume of Advances in Ophthalmology, those supplements to Ophthalmologica whose periodic appearance we look forward to with anticipation and pleasure, contains an able, interesting, and comprehensive original article by Bürki of Basel on the preservation of the cornea for grafting, with particular reference to the paraffin method. It deals with both experimental and clinical aspects of the problem with histological checks, strongly recommending preservation in liquid paraffin at 3 to 5°C. The remainder of the volume is occupied by two reviews: one by Jaensch of Essen of the literature from 1947–52 on ocular motility and strabismus, and the other by Forni of Geneva, comprising the second part of a review of the literature from 1946 to 1951 on diseases of the cornea and sclera. Both these reviews are exhaustive and form a useful and ready reference to the subjects with which they deal.


Bielschowsky's classical lectures on motor anomalies of the eye, which were delivered in America and published in the American Journal of Ophthalmology between 1938 and 1939, were subsequently published as a separate brochure. A new edition has now appeared with minor corrections. As a philosophic survey of motor anomalies of the eye, this résumé of the views of one of the great masters of the subject is unique, and it is good that it is once more available.