

cal connectedness; N. E. Steenrod, Regular cycles of compact metric spaces; Samuel Eilenberg, Extension and classification of continuous mapping; Hassler Whitney, On the topology of differentiable manifolds; S. S. Cairns, Triangulated manifolds and differentiable manifolds; P. A. Smith, Periodic and nearly periodic transformations; Leo Zippin, Transformation groups; Saunders MacLane and V. W. Addikson, Extensions of homeomorphisms on the sphere; O. G. Harrold, Jr., The role of local separating points in certain problems of continuum structure; L. W. Cohen, Uniformity in topological space; E. W. Chittenden, On the reduction of topological functions. There are also short accounts of nine other papers.

As can be seen from this list, practically every phase of modern topology is touched upon in this collection. Many of the papers are of a discursive nature, with most of the proofs omitted, and so the total amount of ground covered is quite extensive. We heartily recommend this book to any worker in topology as an excellent source of information on the present status of this subject.

R. J. WALKER

*An Introduction to Linear Transformations in Hilbert Space.* By F. J. Murray. (Annals of Mathematics Studies, no. 4.) Princeton University Press, 1941. 135 pp. \$1.75.

The purpose of this book, according to the author, is "to present the most elementary course possible on this subject" and at the same time "to emphasize those notions which seem to be proper to linear spaces." Despite the assertion that these aims are not antagonistic, the exposition would be pretty tough going for the average graduate student. Although the reader is not assumed, except in an isolated section, to know about Lebesgue integration, and although the proof of such a comparatively elementary fact as that a continuous image of a compact set is compact is given in detail (p. 48), many parts of the book assume a great deal more sophistication.

The discussion is almost entirely unmotivated: the beginner might like to know *why* one studies spectral families, or the adjoints of operators. Even to one familiar with the theory it requires proof that von Neumann's definition of  $T^*$  is equivalent to the easier one usually given for bounded transformations;  $T^*$  is defined as the negative of the transformation whose graph is the orthogonal complement of the graph of  $T$ .

Concerning the author's choice of the order of the material, it is questionable whether or not it is pedagogically advisable to aim the