as to directions in which things of value are to be found.

The second chapter affords a striking illustration of this tendency to introduce bits of mathematical theory without any adequate development. Here in the short space of sixteen and a half pages the reader is hustled through a discussion which touches upon Lebesgue measure, continuous groups (including the theory of group characters), and ergodic theory. It is hard to see how anyone, unless he be an expert in this particular set of subjects, can be expected to get much of anything out of this.

Similar criticisms apply to Chapter III, which deals with the theory of information. This new theory is elusive and subtle at best; and the hurried and mathematically complicated treatment given here seems to the reviewer to verge upon utter unintelligibility.

In conclusion, simple honesty and a decent regard for good workmanship compel the reviewer to remark that someone must bear the responsibility for what is truly a wretched job of proofreading. It would be hard to find another book having as high an average number of errors per page as this one has. The errors run all the way from trivialities, which are merely occasions for exasperation, to typographical errors in the equations and formulae which seriously impair the intelligibility of the exposition. Scientists, unlike philatelists, do not value documents for the errors they contain, and therefore it is to be hoped that in a second edition we shall see most of these errors corrected.

L. A. MacColl

Topology of manifolds. By R. L. Wilder. (American Mathematical Society Colloquium Publications, vol. 32.) New York, American Mathematical Society, 1949. 10+402 pp. $7.00.

To give an idea of the scope of this book we shall begin with a brief description of a body of theorems in the topology of the euclidean plane that are referred to as the "Schoenflies program." Let M be the 2-sphere and K a closed subset of M. If K is a simple closed curve (=topological image of a 1-sphere) then $M-K$ is the union of two disjoint connected open sets A and B such that $K=\bar{A}\cap\bar{B}$ (Jordan Curve Theorem). It is further known that each of the sets $\bar{A}$ and $\bar{B}$ is homeomorphic to a closed disc. Converse theorems which give necessary and sufficient conditions on the set $M-K$ in order that K be a simple closed curve or a Peano space (=locally connected continuum) also exist.

The objective of this book is to extend this program to higher dimensions, using homology theory as the principal tool. Thus M is