to the ignorant, and ideas or suggestions to the experienced. Every book of the sort has some things in it which will not work, and as a rule, the recipes which will work are those which have been outgrown by the special trade which used them.   But if they are good in themselves, they are valuable to the non-professional; and occasionally, though rarely, those which are no good at all set the professional to thinking along a new line; at least, this has been the reviewer's experience.   This book is a rather unusually good book of the sort, judging, of course, from those things which the reviewer knows.   The author judiciously remarks in his preface that "it is, of course, assumed that the users of these formulae have some acquaintance with methods of manipulating them, and that they will also exercise a little common-sense when applying them to their purposes".   If they do that, they will omit some of them altogether; but in the varnishes, for example, most of the recipes will make some sort of varnish, and some of them are very good, such as the coach and cabinet varnishes, though they take as many days to dry as the author gives hours.   In general, the formulae are more complicated than those commonly in use in this country, and a glossary would always be useful in a book of this sort, for names vary in different countries and places, though usually intelligible to an expert.   We are all acquainted, for instance, with "mineral turpentine", but no one can fail to be pleased with the idea of thinning paint with "mineral tea rose oil" instead of deodorized benzine.   The reviewer commends this book to such as like books of recipes, and indorses the advice of the author to use it with some common sense.   A. H. SABIN.

A COURSE IN MODERN ANALYSIS. BY E. T. WHITTAKER, M.A. Cambridge : The University Press. New York : The Macmillan Co. xvi + 378 pp.

This book aims at presenting those portions of modern analysis, as based on the so-called imaginary or complex number, which "seem to be of greatest importance at the present time."   Infinite series are considered in all their phases, and all those important series and functions which were developed by Fourier, Bessel, Lagrange, Legendre, Laplace, Gauss, Abel, etc., in their study of practical problems.   It is a useful work for those who wish to make use of the most advanced developments of mathematical analysis in theoretical investigations of physical and chemical questions.   ARTHUR S. HATHAWAY.