

colors are then discussed in somewhat fuller detail and the methods of dye-mixing and dye-testing described.

This plan has, in our opinion, been carried out with a notable measure of success and we believe the book would be well adapted to the use of students in dyeing classes as well as for dyers who wish to learn more of the theory underlying the art that they have learned in the dye-house. Prior to the appearance of this book, the best little book covering this ground was Hummel's "Dyeing of Textile Fabrics," but this book we believe to be the better of the two for the purpose it has in view. We can, therefore, recommend it quite cheerfully as worthy of an endorsement, and believe that it will find acceptance at the hands of those looking for a convenient manual on this subject.

S. P. SADTLER.

SEALING-WAXES, WAFERS, AND OTHER ADHESIVES. BY H. C. STANDAGE.  
London: Scott, Greenwood & Co. 1902. 95 pp. Price, \$2.50 net.

The first thing that strikes one in looking at this book is that two dollars and a half is a large sum to pay for a book of about 20,000 words, equal to about one-third of one of the monthly numbers of this Journal, made up, apparently, of recipes culled from the technical papers. Half of the book is devoted to sealing-waxes. There is a short but clear and intelligible description of this process, a brief account of materials used, and a large number of formulas, all of which are probably practical, and useful to the amateur. But the amateur is not likely to make a very fine article, and probably almost any formula is good enough for him, while the professional will always work out his own. Four pages are given to an interesting account of wafers. The rest of the book is on cements and pastes. The statement is made that "gelatine differs from glue in its chemical nature, but in physical characteristics is very similar"; also "this fact" (the insolubility of glue in oil) "has not been made full use of, as, for example, in the preparation of a glue compound that could be used as a paint for coating the inside or outside of barrels containing such volatile fluids as benzene, etc." I had supposed that every manufacturer in the world used glue to line the barrels for benzene, turpentine, oil, varnish, etc., and I still think so. "Flour, as a material for producing adhesives, depends on the gluten it contains." No doubt gluten is useful, but flour also contains starch, which has some repute as an adhesive, and starch is nowhere mentioned in the

book except once as a material from which dextrin is made and in one formula for a liquid glue, of which starch is to make one-tenth the total solids. The flour pastes and the glues are very good, but any one who expects to learn from this or any other book how to make such a paste, for example, as the "library" and "photographic" pastes now on the market, will be disappointed. Among the cements, I note the conspicuous absence of the old and reliable litharge and glycerin mixture, and all the asphaltum compounds. On the whole, it may be said that the book is very good, what there is of it, but as to its being the work of an expert there may be some doubt. A good book on glue alone, by a real expert, would be "mighty interesting reading" and it would be new.

A. H. SABIN.

**THE UTILIZATION OF WASTE PRODUCTS. A TREATISE ON THE RATIONAL UTILIZATION, RECOVERY AND TREATMENT OF WASTE PRODUCTS OF ALL KINDS.** BY THEODOR KOLLER. Translated from the German Second Revised Edition by a Technical Chemist. London: Scott, Greenwood & Co. New York: D. Van Nostrand Company. Svo. viii + 279 pp. Price, \$3.50 net.

This book is in many respects opportune. Notwithstanding the fact that modern practice in manufacturing requires that everything which may find useful application shall be recovered and utilized, it is nevertheless true that many products are still allowed to waste while preventive methods are being eagerly sought. Experience in this country as well as abroad has shown that frequently utilization of waste, forced by legislative enactment by states and municipalities, has protected important industries from ruin, and that substances considered nuisances not only by producers but by their neighbors have become important sources of profit. We need only refer to the practice forced upon the meat-packing industries of this country to find apt illustration of this fact. The book before us calls attention to many of the wastes available and describes methods whereby they may be recovered. These descriptions are professedly for the greater part comparatively brief abstracts of papers published in various works and periodicals but few being the outcome of the experience of the author and many of them scarcely up to the standard of every-day practice. The source of information in each case is carefully given so that further details may readily be found, if desired. The book will prove useful in many hands and serve as a source