of liver biopsies before, during and after surgery is discussed. The pathologist stresses the influence of malnutrition or mere preoperative fasting on liver glycogen and protein content. The role of hypoxia in production of hepatic damage is discussed by several contributors, most poignantly in a chapter on "Anesthesia with Halothane in Air." There is a chapter on hepatitis associated with infusion and transfusion therapy, prefaced by the statement that it is virtually impossible for both clinician and pathologist to differentiate between serum homologous hepatitis and toxic (halothane) liver damage.

It is gratifying to read discussions of the role of the sympathetic nervous system and/or vasopressor drugs in the production of liver damage by halogenated hydrocarbons. There is a short chapter on preoperative examination, preparation, and choice of anesthesia for patients with disturbed liver function.

The monograph ends with ten pages of lively discussion, apparently transcribed verbatim. The book is valuable enough to have merited an index. This readable review is excellently printed and illustrated and is as complete as the available space allows.

W. H. MANNHEIMER, M.D.

Blood Program in World War II. By BRIGADIER GENERAL DOUGLAS B. KENDRICK, M.C., U.S.A. Office of the Surgeon General, Department of the Army, Washington, D.C. Cloth. $8. Pp. 922, with 195 illustrations. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. Library of Congress Number 64-60006. Published by the Office of the Surgeon General, Department of the Army, Washington, D.C. 1964.

The Medical Department of the United States Army is publishing a succession of volumes that cover the history of medical activities during World War II. This recent book deals with the professional effort between 1940 and 1945 in reference to blood banking. General Douglas B. Kendrick, M.C., then head of the Department of Surgical Physiology at the Army Medical School and Special Representative on Blood and Plasma Transfusions to the Office of the Surgeon General, was responsible for the blood and plasma programs for this period. He is therefore an author eminently qualified to discuss the problems that were encountered and the methods that were developed to solve them.

In disclosing in an extended and factual manner the experiences of the Overseas Theaters of Operations this book emphasizes the homely truth that injuries causing loss of blood, with or without consequent infection, are the principal cause of shock and must be treated by replacement of blood. In World War I this fact was established and almost simultaneously O. H. Robertson conceived and operated the first blood bank that separated citrated whole blood into its plasma and red cell components. Between the wars this was forgotten but later was relearned and put into action on a large scale after an intensive but hasty effort in research.

It was found that to procure, store and distribute whole blood properly the military services must separate blood banking from all other military and medical activities and entrust it to experienced people who have no other responsibilities. Any deviation from this principle resulted in failure to deliver blood of proper quality and in sufficient quantity to military hospitals in dire need. Anesthesiologists and the newly-appearing breed of blood bank or blood transfusion particularists may well remember these two lessons in establishing and operating blood banking services in civilian or military hospitals today or in planning for the future.

RONALD S. BECKETT, M.D.
RALPH M. TOVELL, M.D.

Ergebnisse der Bluttransfusionsforschung, VIII. Paper. $11.80. Pp. 318, with illustrations. S. Karger, Basel (Schweiz) and New York. American Representative Albert J. Phiesig, White Plains, New York, 1965.

This paperback supplement of the Acta Haematologica reports a series of papers by many authors presented at a blood transfusion conference in Bad Neuheim in April, 1964. Most of the papers originated in Germany. Included are sections on blood transfusion reactions, indications for blood transfusions, therapy with blood fractions and blood substitutes, hemorrhagic disease of the newborn, and techniques concerning blood transfusion and cross matching. Included are literature review, original articles, and the recording of panel discussions.

Those anesthesiologists conversant with German may find this a useful reference source, since there is detailed discussion of all aspects of transfusion therapy.

D. W. EASTWOOD, M.D.