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**THE CIRCULATION AND SLEEP**



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# THE CIRCULATION AND SLEEP

EXPERIMENTAL INVESTIGATIONS  
ACCOMPANIED BY AN ATLAS

BY

JOHN F. SHEPARD

UNIVERSITY OF MICHIGAN



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1914

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## PREFACE

This volume is primarily a report of experimental investigations. Altogether it was necessary to study several hundred records, the total length of which amounted to about thirty-five hundred feet. Each record contained from two to six tracings besides indicator lines. Those reproduced were, of course, selected to show typical conditions.

A part of the expense of employing trephined individuals to serve as subjects, was met by a grant from the Elizabeth Thompson Science Fund. A part of the remainder was paid by the University of Michigan. I am most grateful for these grants. I am indebted to Professors Pillsbury and Lombard for their aid and encouragement at all times, and for reading the manuscript. Thanks are due to Professors G. L. Jackson, F. C. Dockeray, and H. H. Woodrow, and to Mr. C. E. Galloway for assisting in the experiments. I am especially indebted to my wife, who has been of the greatest service in the preparation of the manuscript. Mr. W. C. Hollands has given aid in matters of publication. I wish finally, to express my thorough appreciation of the action of the University in providing for publication.

JOHN F. SHEPARD.

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