THIRTEENTH EDITION

# OBSTETRICS

J. P. GREENHILL

#### THIRTEENTH EDITION

## **OBSTETRICS**

FROM THE ORIGINAL TEXT OF JOSEPH B. DE LEE, M.D.

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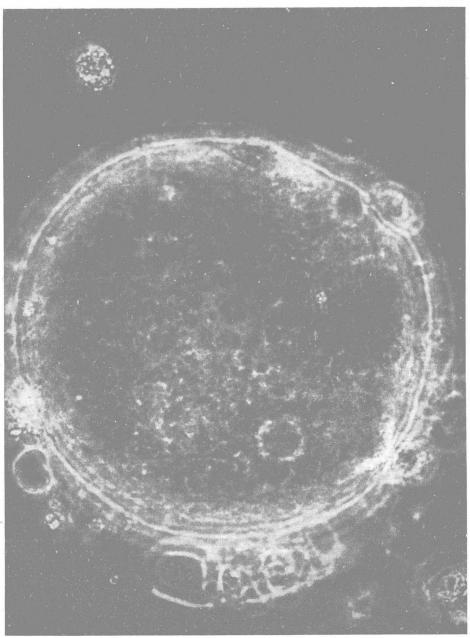
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1296 Illustrations on 1193 Figures, 54 in Color

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A VERY RECENT DISCOVERY, this is thought to be the youngest naturally fertilized and developing human ovum so far recovered. It is shown in the living state by phase microscopy. The vitellus was  $103\mu$  in diameter when spherical, becoming  $125\mu$  when compressed by a coverslip, which improved the visibility of the surrounding zona pellucida (oʻoʻlemma) and the male and female pronuclei near the center. The photograph, kindly provided by Dr. Z. Dickmann, is from a preliminary report by R. W. Noyes, Z. Dickmann, T. H. Clewe and W. A. Bonney in Science 147:744 (Feb. 12) 1965, Pronuclear Ovum from a Patient Using an Intrauterine Contraceptive Device; the definitive publication will be by Dickmann, Clewe, Bonney and Noyes in Anatomical Record.

#### Preface

A little more than fifty years ago the first edition of Joseph B. DeLee's book *Principles and Practice of Obstetrics* was published. DeLee prepared six subsequent editions of the book, which proved to be one of the foremost textbooks in the field of medicine. It has been my great fortune to have written the last six editions of this book. I have tried, with humility, to write in the tradition of DeLee, who was not only one of the outstanding obstetricians of all time but also a true humanitarian. I have been amply rewarded, in the name of DeLee, by the popularity of this book both in English and foreign translations.

In this edition, as in the Twelfth Edition, I have enlisted the aid of outstanding, world-renowned authorities to prepare special chapters. The names of the thirty-two contributors are listed on pages vii—ix, and their subjects are shown in the Table of Contents. Those who contributed to the Twelfth Edition have revised their chapters and brought them up to date. In several instances new contributors were selected for certain chapters chiefly because they were more oriented to the obstetric point of view.

George W. Anderson has revised the chapter prepared by James B. Arey for the Twelfth Edition, Marie V. Krause has revised the chapter written by Bertha S. Burke and Samuel B. Kirkwood, and I. Dyer has written a section on Trauma in Pregnancy and Labor.

In addition to the foregoing authorities three prominent specialists in fields other

than obstetrics have revised special sections which I wrote and have made numerous helpful criticisms and suggestions. These men are Sam W. Banks (Orthopedic Problems), Paul Lazar (Cutaneous Diseases) and Sam Perlow (Venous Complications During the Puerperium).

The entire book has been rewritten, numerous old illustrations have been removed and 419 new ones have been added.

Thirty-three of the eighty-four chapters of the book have been written by the other contributors. These chapters are so important that they constitute an indispensable part of the book. It is impossible for me to thank sufficiently these men and women for the time and effort they have put into their excellent chapters.

As in previous editions I most sincerely thank Zola Wist for the great help she has rendered in revising the manuscript and making it readable and accurate. Also I am grateful to her for the painstaking and expertness with which she has again prepared the very important index. Also, I am greatly indebted to Emanuel A. Friedman who looked through all of my chapters and made numerous helpful suggestions.

My deepest gratitude goes to several men in the W. B. Saunders Company who have been most helpful, cooperative and patient with my demands to try to make the book as perfect as possible.

I sincerely hope that the spirit of the great Joseph B. DeLee still lives in this book.

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#### Part One

# THE PHYSIOLOGY OF REPRODUCTION, PREGNANCY, LABOR AND THE PUERPERIUM

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Section Three PHYSIOLOGY AND CONDUCT OF THE PUERPERIUM