

PITUITARY
Posterior lobe



GLAND
Anterior lobe

FOLLICLE IMPREGNATION HORMONE

LUTEINIZING HORMONE



Surface views of developing follicle



Surface views of developing corpus luteum



Sections of developing follicle



Sections of developing corpus luteum



Maturing follicle

Ovulation

ESTROGEN PREDOMINANT



Early

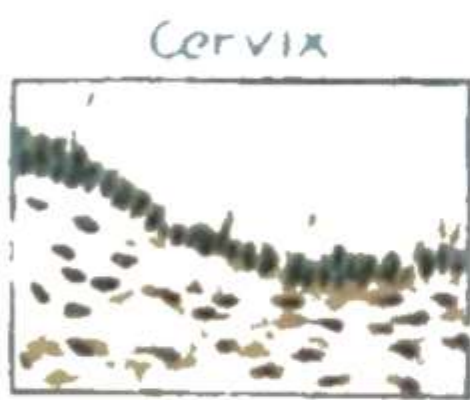
Mature

Fading

PROGESTIN PREDOMINANT



Menstrual and early growth



Cervix



Late growth



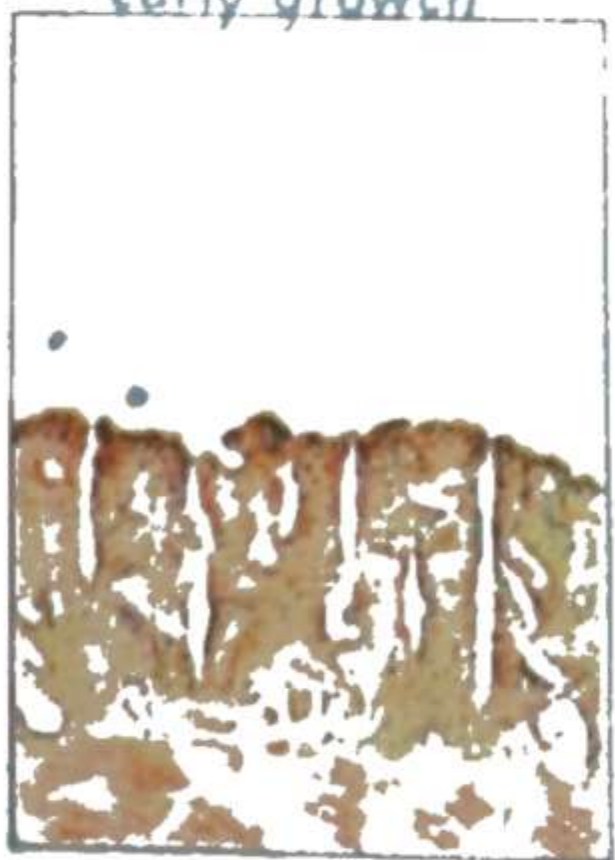
Early secretory



Cervix



Late secretory and menstrual



SECTIONS OF ENDOMETRIUM AT DIFFERENT STAGES OF CYCLE

Estrogen
(Blood)

Progesterin

Endometrium

Menstrual flow

14

28

FIG. 1.—THE PITUITARY-OVARIAN-UTERINE CYCLE.

DISEASES OF WOMEN

BY

HARRY STURGEON CROSSEN, M.D., F.A.C.S.

Professor Emeritus of Clinical Gynecology, Washington University School of Medicine.
Consulting Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital,
St. Luke's Hospital, De Paul Hospital and the Jewish Hospital; Fellow
of the American Gynecological Society and of the Central
Association of Obstetricians and Gynecologists

AND

ROBERT JAMES CROSSEN, A.B., M.D., F.A.C.S.

Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School
of Medicine; Assistant Gynecologist and Obstetrician to the Barnes Hospital and
the St. Louis Maternity Hospital; Assistant Gynecologist to the
St. Louis Children's Hospital; Gynecologist and Obstetrician to
St. Luke's Hospital and to De Paul Hospital; Fellow of
the Central Association of Obstetricians and
Gynecologists; Diplomate of American
Board of Obstetrics and
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DEDICATED

AS A TOKEN OF APPRECIATION

OF

HIS SPLENDID PROFESSIONAL ATTAINMENTS,

HIS UNSELFISH DEVOTION TO THE CAUSE OF MEDICAL EDUCATION

AND HIS INSPIRING PERSONAL FRIENDSHIP

PREFACE TO NINTH EDITION

The signal advance in recent years in gynecologic diagnosis and treatment has come largely through intensive study of physiology. In accordance with this fact and to emphasize the growing importance of such study for the understanding and successful treatment of pelvic disorders, a physiologic subject has been chosen for the frontispiece place of honor. It stands at the beginning, to indicate to those who would enter this field of knowledge that they must immediately tackle the intricate problems of the how and why of functional phenomena.

The necessity for such study applies not only to hormones and endocrine activities, now holding the center of the stage, but to every factor which enters into the transformation of intake, through all avenues, to the output of the organs in normal products and in pathological pains and dysfunction. The areas where obvious anatomy disappears into the invisible processes of function constitute the frontiers of knowledge, where pioneers delve and struggle and gradually advance into the unknown. Here, the blood with its many activities, the nerves with their sympathetic and parasympathetic impulses, the muscle cells which change food into power, and the hormones and vitamins with their chemical and physical and vital reactions, all work together to bring about those wonderful transformations, concerning which we have learned so much and yet, on the whole, know so little.

This physiological trend has shifted major investigative interest in anatomy from the gross structures, which in the main are well known, to the minute structural details which mold function in the special cell areas of each organ. For example, in the myometrium and endometrium there are types of terminal apparatus by which ordinary nerve control of vasomotor and other activities combines with local hormone control to cause the normal menstrual disintegration and exfoliation of the endometrium.

Diagnosis and treatment have advanced with this increase in knowledge of physiological and pathological activities. Care has been taken to present these advances in a practical way so that, in the daily handling of patients, they may be used effectively and with understanding of the principles on which they rest.

The endeavor has been to present for the student the basic facts and salient developments of the biologic and physiologic investigations which are making history in the gynecologic field, and to bring to the practitioner a comprehensive systematic judicial consideration of the diagnostic and therapeutic helps made possible by these great advances in knowledge. The accomplishment of this difficult task has been greatly facilitated by the kind permission of authoritative workers for the use of their helpful illustrations. The cordial cooperation of these busy investigators and of the publishers of their books and articles has given stimulation and pleasure to the task.

The corpus luteum and its hormonal influences constitute a feature of growing importance. We appreciate particularly the help given by Dr. Willard M. Allen who kindly consented to check over the data concerning the corpus

luteum and its hormones, on which he has carried out such extensive and authoritative work, and also concerning other points in the great field of ovarian and uterine physiology. His kindness in criticizing does not commit him to specific statements, for the advance is so rapid that modifying information is developed from day to day.

To bring the essential features of expanding gynecologic knowledge within the limits of a textbook has required much sifting and condensation of both old and new text. Along with the large amount of new text, there have been added also one hundred and forty-five new illustrations, many of them in color.

In this connection, we wish to express appreciation of the work of Mr. Ivan F. Summers, who combines with his artistic technique and anatomical knowledge a most helpful interest and ability in devising ways of translating ideas into visual symbols.

THE AUTHORS.

PREFACE ITEMS FROM PREVIOUS EDITIONS

Space is very limited, but it is well to mention some of the preface items of previous editions. The active life of this work so far covers a period of more than thirty years, the first edition appearing in 1907. It was begun and has continued as a presentation of the fundamentals of gynecology unencumbered by the space-devouring details of major operative technique, which details were presented in another work.

The primary endeavor, stated in the first preface, was to present the important points *clearly and systematically*—so clearly and so systematically that they will be readily understood and well retained in mind for use at the bedside. To this end much thought has been given to the *arrangement of the text*, so as to show not only the facts of a subject, but also the mutual relation of the facts and their bearing and relative importance in the diagnosis and treatment.

To this end illustrations were freely used. To the more than two hundred original drawings and photographs for the first edition were added many illustrations from gynecologic literature, the endeavor being to bring the best illustration available to elucidate each point. This policy has been continued, and I wish here to express again my appreciation to the authors and publishers through whose kindness I am able to use these instructive illustrations.

It is interesting to note, in the preface items of the editions, the succession of gynecological subjects as they came to study and elucidation by gynecologists—pelvic inflammation, tubal pregnancy, the application of serologic studies to gynecology, cell studies in regard to cancer, the x-ray visualization of the uterine and tubal cavities, the ductless glands, and later the great enlightenment of the ovarian-pituitary cycle and other endocrine connections.

The various physicians and artists who have assisted in different editions have been mentioned with appreciation in those editions. Dr. Hugo Ehrenfest gave signal help not only in completing the fourth edition when I was called to duty with our troops in France in World War I, but also in furnishing a

most instructive chapter on the endocrine glands running through several editions. Later, this subject expanded so much that it was necessary to distribute to each chapter the portion relating to the organ there considered.

In the eighth edition, the great expansion in detailed pathology and hormonal physiology and diagnosis and treatment was due to the activity of the coauthor, Dr. Robert J. Crossen, who was indefatigable in search and analysis and in efforts at practical presentation of the application of the newer knowledge to the various problems encountered in gynecologic work.

The publishers have aided and encouraged throughout by their courtesy and cordial cooperation.

H. S. CROSSEN.

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