

PREFACE TO THE TWENTIETH EDITION.

SINCE the publication of the first English edition of this work in 1858 and the first American edition in 1859 great advances in the subject of Anatomy have been made, especially in microscopic anatomy and the anatomy of the embryo. This knowledge was embodied from time to time in the successive editions until finally considerable portions of the text, sometimes sections, were devoted to these subjects. However, the main text has always remained primarily a descriptive anatomy of the human body.

In the present edition the special sections on embryology and histology have been distributed among the subjects under which they naturally belong. New matter on physiological anatomy, laws of bone architecture, the mechanics and variations of muscles have been added, occupying much of the space formerly devoted to the sections on applied anatomy.

The sections on the ductless glands and the nervous system have been largely rewritten. In the latter a more rational presentation of the sympathetic nervous system has been achieved through the use of diagrams and descriptions based on physiological and pharmacological work. The central connections of the spinal and cranial nerves are also emphasized.

Illustrations have been added wherever important points could be made more clear, and throughout the work colored pictures have been even more extensively used than heretofore. In this respect special mention might be made of the central nervous system and the section on the muscles. In the section on Syndesmology six illustrations are used from Quain's *Anatomy* through the courtesy of the publishers, Messrs. Longmans, Green & Company, of London.

The use of the B. N. A. nomenclature in English has been retained practically unchanged in this edition and important references to the literature have been added at the end of each section.

As a practical work on the subject for the student, Gray's *Anatomy* has always been recognized and appreciated. The plan originally formulated, which has proved so successful, has been adhered to as much as possible. It is interesting to note that although Henry Gray saw only the first edition, much of the original text persists and many of his illustrations are still in use. Bearing this in mind it has been the endeavor of the Editor to supply only such changes as advances in the science made necessary in order that this work may reflect the latest accessions to anatomical knowledge.

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