

cessity for compression, will be regarded, it is hoped, as a sufficient apology for terseness and directness of expression or defect in style, while the circumstance of joint-authorship will explain any lack of uniformity in manner throughout the work, of which the preparation for the press has devolved mainly upon the junior author.

The plan of the work is based upon an anatomical classification of the tissues and organs of which the diseases and deformities form the subjects of description. This necessitates some repetition and frequent reference to facts, cases, or illustrations already given, or to be given, in connection with other anatomical divisions of the genito-urinary tract. These references are usually made thus: (Nephralgia), (Plate XX), (Case 45), the page not being specified, as the constant appearance of signs scattered through a page tends to confuse the reader. No difficulty need be experienced in turning to these references promptly, as the parenthetical word, case, or plate may be found at once credited to its proper page in the general index at the end of the book, or in the index to plates, or list of cases, at its commencement.

The terms of measurement employed are uniformly English, with the exception of the centimetre and millimetre, which frequently occur in the text. These may be readily reduced to their equivalent in inches by computation from the subjoined table.¹

The subject of syphilis is included, of necessity, in a treatise like the present. Opportunities for the observation and study of this disease on a large scale fall mainly to the share of the metropolitan hospital-surgeon and special practitioner. Although properly belonging to the department of Principles of Surgery, there is no disease falling within the limits of this work concerning which clear and correct ideas as to nature and treatment will, at the present time, so seriously influence success in practice.

Chapter VIII, Part II, on "Syphilitic Diseases of the Eye," has been kindly furnished, at the request of the authors, by Prof. H. D. Noyes, M. D., whose authority on this subject is undisputed.

They beg leave to thank Dr. Roosa for aid, both personally and through his excellent work "On Diseases of the Ear," in the preparation of Chapter IX, Part II, "On Syphilis of the Ear."

Acknowledgments are also due to Dr. Partridge and Dr. Morrison-Fiset, of the house-staff of the Charity Hospital, for kind assistance; and to Dr. L. A. Stimson for aid in many ways.

¹ NEW YORK, *March*, 1873.

¹ 1 centimetre = 4·433 lines, or ·393708 inch;
 1 millimetre = ·443 line, or ·03937 inch;
 or, roughly, 1 millimetre equals half a line—about one twenty-fifth of an inch.

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THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS

PART I

DISEASES OF THE URINARY ORGANS, INCLUDING GONORRHEA

CHAPTER I

ANATOMY AND PHYSIOLOGY OF THE URETHRA—CURVE OF URETHRAL INSTRUMENTS—URETHRAL AND SEX- UAL HYGIENE

ANATOMY OF THE URETHRA

THE urethra is always a closed canal throughout its whole course, except when distended by some foreign substance. Commencing at the neck of the bladder, it tunnels the upper part of the prostate, perforates the triangular ligament, and terminates at the end of the penis. Its outer opening is known as the *meatus*, or the *meatus urinarius*. The urethra is divided naturally into two parts, the *anterior* and the *posterior urethra*, by the triangular ligament, the anterior urethra lying external to the anterior layer of that structure, and the posterior urethra being the continuation of the canal backward into the bladder. The anterior or spongy portion of the urethra is again subdivided into four parts, the navicular (or the fossa navicularis, Fig. 1), penile (Fig. 2), scrotal, and bulbo-perineal (or simply the bulb) (Guyon¹). The posterior urethra is subdivided into the membranous and the prostatic portions. It is much more accurate to speak of a lesion, such as a foreign body or a stricture, as being at the peno-scrotal angle or in the bulb, than to say it lies at a depth of 4 or 6 inches, for not only does the length of the urethra vary according as the penis is erect or flaccid and in disease (hypertrophy of the prostate), but the urethral *length*, the urinary distance,² varies widely in different healthy individuals.

¹ Leçons cliniques, 1896, ii, 295.

² Keyes, Am. J. of Med. Sci., 1898, cxvi, 125.