His previous history was that he had been troubled on micturition for fourteen months past, which occurred three months after, and was probably consequent upon, a somewhat severe gonorrhœa, concerning the treatment of which it would be well to remark, *en passant*, that no injections were used. Catheterism was attempted by the medical officers of Her Majesty's ship *Nile*; subsequently in hospital, by Deputy-Inspector-General Salmon; it was found, however, to be impossible to introduce a catheter of any shape or form; and, in consequence of the impermeable nature of the stricture, he was discharged from the navy on March 18th, 1864.

On admission, he could pass no stream. His urine dribbled away by drops, causing great pain. I found a tight stricture in the bulbous portion of the urethra, which was pervious to a No. 4 silver catheter; and another in the membranous portion of the canal, quite impermeable. Here the instrument diverged into false passages, and gave rise to some little hæmorrhage. He was ordered alkaline medicine with large doses of tincture of henbane. Attempts were repeatedly made by myself and some medical friends, to introduce a catheter under the influence of large doses of opium, the warm bath, and chloroform; but all to no purpose. I accordingly suggested to him the necessity of an operation, to which he willingly assented.

Jan. 15th. After consultation with and with the kind assistance of Drs. Bartlet, senior, and H. G. Moore, he was placed under chloroform. I punctured the membranous portion of the urethra (which was considerably distended with urine) and introduced a female silver catheter through the wound, inwards into the bladder. A large quantity of urine was thus drawn off, and the catheter was firmly secured. He was ordered to have a generous diet, and to take two grains of opium at bedtime.

Jan. 16th. He was very comfortable. The urine had passed freely through the catheter. Attempts to pass a catheter by the natural passage failed.

Jan. 17. I again endeavoured to pass a No. 6 silver catheter, but this instrument diverged into a false passage, and induced such profuse hæmorrhage, that I determined to try no more for some days to come.

Jan. 18th. The female catheter was removed.

Jan. 19th. Urine had passed freely through the opening in the perineum. The female catheter was introduced and removed.

Jan. 20th. I again attempted to pass a good sized catheter through the stricture, and again induced profuse hæmorrhage, which saturated the bed. I introduced the female catheter through the wound in the perineum, and, having some difficulty in passing it, let it remain.

Jan. 22nd. The female catheter was removed.

Jan. 23rd. The female catheter was introduced and removed.

Jan. 26th. This was the eleventh day since the operation. He was passing his urine freely, and with control, through the perineal opening. To-day, I introduced a No. 8 silver catheter slowly and steadily through the first stricture, and after about ten minutes of gentle but firm pressure upon the hitherto impermeable stricture in the membranous part of the canal, I had the satisfaction to feel the stricture gradually giving way. The catheter slowly glided into the bladder, and was there retained.

Jan. 29th. The catheter was removed.

From this time an instrument was introduced daily. By February 10th, the wound in the perineum had healed, and he passed his water freely and without difficulty by the natural passage. Warm baths were used twice daily.

March 22nd. He could now pass as good a stream as ever. For the last fortnight he had been able to introduce a No. 8 instrument for himself, which he had done every other day. To-day I passed a No. 10 catheter without any difficulty; and, being anxious to return to Woolwich, he was discharged cured.

Reviews and Notices.

OPTICAL DEFECTS OF THE EYE, AND THEIR CONSEQUENCES, ASTHENOPIA AND STRABISMUS. By JOHN ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond., Surgeon to the Ophthalmic Hospital, Southwark; etc. Pp. 109. London: 1865.

THE term "Optical Defects of the Eye" may to many appear tautological; inasmuch as it may be said that all defects of the organ of vision are necessarily optical. Mr. ZACHARIAH LAURENCE, however, uses the term to denote the defects of vision which depend on irregularities in structure or function of the parts of the eye concerned in vision (ὄψις), in contradistinction to injuries and other pathological lesions of the eye itself (ὀφθαλμος), which come within the province of ophthalmic medicine and surgery. The optical defects of the eye are, in short, those which require for their comprehension and treatment an acquaintance with the physical laws of vision, and with the manner in which such knowledge may be applied to the artificial correction of these defects. Such is the instruction which Mr. Laurence here endeavours to impart in as simple a form as the subject will admit, and at the same time with sufficient detail to give the student of optical defects a good starting point for observation.

The remarks here offered by Mr. Laurence are, as he states in the preface, founded on the information which he has derived from a study of the writings and labours of the distinguished ophthalmologists, Donders, Snellen, Mackenzie, Giraud-Teulon, Von Gräfe, etc., as well from his own experience. They were originally imparted in the form of lectures at the Southwark Ophthalmic Hospital; but are here arranged in ten chapters, as follows. 1. Optical Considerations; 2. Physiological Optics; 3. Pathological Optics; 4. Myopia; 5. Hypermetropia; 6. Astigmatism; 7. Presbyopia; 8. Paralysis of Accommodation; 9. Asthenopia; 10. The Connection between Convergent Strabismus and Hypermetropia.

In the first chapter, Mr. Laurence gives such an outline of pure optics as is necessary for the understanding of the optical construction and defects of the eye.

In the second, the author treats of the optical structures of the eye in their physiological relations. The phenomena of accommodation is explained, and the different theories of its mechanism are given. Mr. Laurence states that the chief instrument of accommodation is the ciliary muscle; but that the iris acts as a supplementary organ. It contracts when we view near objects; dilates when we look at distant ones. He believes that

"The contraction of the pupil is intended as a corrective supplement to our accommodation, properly so called" (increase of convexity of the crystalline) "by diminishing any slight circles of diffusion in the

external image that might possibly arise from inaccurate contraction of the ciliary muscle."

But the action of the iris in accommodation is, as we understand the author, unimportant in comparison with the action of the ciliary muscle; as may be shown by placing before the eye a thin plate of metal or a card perforated with an aperture equal to the smallest size of the natural pupil.

The chapter is concluded with some remarks on binocular vision and the phenomena of the stereoscope.

The third chapter, on Pathological Optics, is merely a short one introductory to the study of optical defects. Its object is to introduce to the reader a system of classification adopted from Professor Donders, and founded on the refractive condition of the eye in the state of rest. The system is shewn in a table.

In the fourth chapter, the author commences by discussing a subject which he purposely omitted in the first—that of concave lenses. He then goes on to speak of myopia, commenting on the characteristics of this defect given in the preceding table. The far point—the farthest point which can be focussed again on the retina by the refractive power of the eye—he has found to vary from (in extreme cases) $1\frac{7}{8}$ English inch to 80 inches from the cornea.

Having given directions for ascertaining the presence of myopia and determining its degree, Mr. Laurence shews that the distance of the farthest point of distant vision cannot always be taken as the focal length of the concave glass with which he should be supplied; *e.g.*, in practice it is found that a maximum far point of six inches requires, not a $5\frac{1}{3}$-inch or 6-inch glass, but a 7- or an 8-inch one. This arises in part from the fact that, in viewing the test-subject at six inches, the eye had undergone accommodation, so that the increased convergence of the crystalline lens requires to be neutralised by the concave lens.

At page 44, Mr. Laurence refers to a "dazzling" appearance on objects of which persons having a high degree of myopia complain when fitted with glasses. He states that he has found this remediable by simply tinting the glass.

"This appears to me to prove that the sensation alluded to has its origin in some hyperæsthetic condition of the retina to light. The only direct evidence I have to advance in favour of this hypothesis is, that I have never seen any of the highest degrees of myopia unaccompanied by morbid alterations of the fundus oculi (staphyloma posticum) but once; and in this instance—a myopia of $\frac{1}{12}$—the patient wore a 2-inch uncoloured concave glass without any inconvenience."

On the other hand, Mr. Laurence has met with high degrees of myopia with extensive staphyloma posticum in which dazzling was not produced; hence some further explanation than that which he has offered appears to be required.

Having given formulæ for the determination of the far point, Mr. Laurence cautions against supplying a myopic patient with glasses that will oblige him to use the entire accommodating power of the eye, and thus exhaust the ciliary muscle. Clinical experience, he says, must here correct our calculations; but, as far as rules can be laid down, the following should be attended to.

"1. If *little or no* accommodation exists, give a glass which entirely supplants any slight retinal accommodation still present. 2. If a *moderate* amount of accommodation exist, give a glass which partially supplants this natural accommodation. 3. If *perfect* accommodation exist, the same glass that does for distant will do for near objects." (P. 48.)

He then goes on to describe two diagnostic signs of myopia; viz., great length of the antero-posterior axis of the eye; and the detection by the ophthalmoscope of myopic refraction and staphyloma posticum.

In the fifth chapter, the author discusses Hypermetropia, commenting in order on the characteristics of this affection, and adducing cases and giving directions as to the use of glasses.

In the sixth chapter, Astigmatism is described; and in the seventh, Presbyopia.

The eighth chapter is a reprint of a paper on Paralysis of Accommodation, published in the first number of the *Ophthalmic Review* by Mr. R. C. Moon, under Mr. Laurence's superintendence. The chapter contains some interesting observations of the effects of the Calabar bean on cases of the class alluded to.

In the ninth chapter, the author speaks of Asthenopia; and in the last, of the connection between Divergent Strabismus and Hypermetropia.

Mr. Laurence is well known to have carefully studied the pathology of vision according to the light which the most recent researches have thrown on it. He is therefore thoroughly qualified to give instruction to others; and, moreover, shews in this book that he possesses the power of placing his knowledge of the subject before the profession in well condensed and easily comprehensible language.

THE WARD MANUAL; OR, INDEX OF SURGICAL DISEASES AND INJURIES. Arranged by THOMAS W. NUNN, Surgeon to the Middlesex Hospital. London: 1865.

THIS is a tabulated catalogue of the various forms of disease and injury which may come under the notice of the surgeon, arranged according to regions. Its purpose, Mr. NUNN tells us, is to afford the clinical student a means of constantly testing his acquirements; of enabling him to learn at a glance what he has seen, and how much still remains for him to see. The *Manual* is intended to be used by the student in the hospital ward, where he is to note down in it any example of injury or disease that may occur to him, and on returning home write out the particulars in his note-book.

The author has also appended a chapter on Inflammation, Cancer, Syphilis, and other diseases with which the surgeon has to deal.

Mr. Nunn's plan may be fairly considered as one of those which students may find of use to them in their clinical studies.

STAMMERING AND STUTTERING: THEIR NATURE AND TREATMENT. By JAMES HUNT, Ph.D., F.S.A., etc. Sixth Edition. Pp. 273. London: 1865.

THIS new edition of a well known work requires no introduction beyond the announcement of its appearance. The author, in the preface, specially urges on the public the importance of early treatment of all cases of defective speech, especially in children.