the original cause has been removed. I know that some authorities are sceptical as to the cure of squint with glasses, but positive evidence must be allowed to outweigh negative, and those of you who have followed the practice of this hospital can have no doubt on the subject. I would go still further, and say that in many cases the glasses may subsequently be laid aside, if binocular vision exists, without the squint relapsing.

Of the operative treatment of squint I will not here speak, but I wish to direct your attention to a method of producing or restoring binocular vision when binocular fixation has been obtained. This in this country has been much neglected; we are too apt to think that, when we have cured the squint, we have done our work, while in reality we have but scamped it. It is true that a deformity has been remedied, but the correction of the squint in the majority of cases does nothing towards restoring binocular vision. Of this you can easily convince yourself by means of Snellen's coloured letters.² You will find that the patient can, if each eye has good vision, see after a little practice either set of letters at will, but seldom both at once. He is not, therefore, really cured, for he does not see as in the normal condition. We owe much to Landolt in the matter of the treatment of affections of the muscles, but in my opinion his greatest achievement is that he has taught us how binocular vision may be restored in a large number of cases of squint. For this purpose a modification of the stereoscope is most useful. In the ordinary instrument the picture before each eye is, by means of a prism with the base outwards, projected to the same point on the middle line and a little further from the observer than the actual picture, so that a slight amount of convergence is used. For our purpose it is necessary that we should be able to regulate the amount of convergence required in order that such pictures may lie on the foveæ centrales. Accordingly the prisms must be capable of rotation, by which means their effect on convergence can be gradually altered. There must also be an arrangement by which either the distance of the object or the strength of the lenses can be altered, in order that the amount of accommodation can be regulated. The objects before the two eyes should be dissimilar, but capable of being fused into a single picture. A bird on one side and a cage on the other make a very serviceable slide.

If the vision of one eye is defective, it must be improved as much as possible by practice, and a more conspicuous object chosen for that eye. In most cases it is at first necessary to attract the child's attention to the picture before the eye that squinted by covering the other. Even when both images are seen simultaneously, it is seldom that they are fused, usually at first there is homonymous displacement, which must be overcome by rotating the prisms, and, if necessary, by adding others.

When once the patient has succeeded in fusing the images, and understands what is required of him, he should be encouraged to practise with other slides, and to amuse himself daily with it. From time to time Hering's test should be used to see whether any progress has been made towards habitual binocular vision. This mode of treatment has been little practised hitherto owing to the difficulty of procuring a stereoscope which would be within the means of hospital patients. Messrs. Pickard and Curry have, however, now manufactured an instrument after Dr. Landolt's model which will, I believe, obviate this difficulty; and it is not unlikely that by this means many more squints will be cured without tenotomy than has hitherto been possible.

² Transparent letters of complementary colours, arranged alternately, and viewed through similar glasses—one before each eye. Since each glass quenches the light which has passed through the letter of its complementary colour, each eye can only see the alternate letters.

SATISFACTORY information as to the decrease of small-pox at Sheffield continues to be received. The malady is said to be decreasing both in the number of cases and in the malignancy of the disease.

It is suggested by President Cleveland that the United States Government should prohibit the importation of swine or porcine products from France and Germany, owing to the information received that disease exists among swine in those countries.

STEPS have been taken by the friends of the late Dr. Adey to connect his name inseparably with the Hastings, St. Leonard's, and East Sussex Hospital. A meeting with this object was held at the hospital on Thursday, March 29th, to consider the question of raising some permanent memorial to this physician, whose name is deservedly held in high esteem by the inhabitants of the district.

THE VALUE OF ELECTRIC ILLUMINATION OF THE URINARY BLADDER (THE NITZE METHOD) IN THE DIAGNOSIS OF OBSCURE VESICAL DISEASE.¹

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THE new incandescent-lamp cystoscope has been before the profession for more than a year,² and sufficient knowledge has been acquired of the capabilities of this instrument, and of its predecessor, the Nitze-Leiter cystoscope of 1879, to warrant the discussion of certain important questions bearing upon the subject of vesical endoscopy. There can be no dispute as to the immense advantage which would be gained by a visual examination of the interior of the bladder in certain cases of obscure reno-vesical disease—cases in which neither the sound nor the microscope nor a careful estimation of the symptoms afford any clue to the nature and site of the disorder. Nor can there be, as far as the mere examination of the bladder is concerned, any difference of opinion as to the superiority of a successful cystoscopy over a digital exploration by the *boutonnière* operation. The questions which merit our consideration relate to the means at our command of obtaining a successful inspection of the interior of the bladder without a cutting operation. They may be thus formulated: Is the electric cystoscope of practical value? What rank will the instrument acquire as a diagnostic agent?

The former question can be readily answered by a reference to the work already done. Obscure vesical symptoms, in which an efficient cystoscope would prove of practical utility, may be elicited by foreign bodies (other than stones), latent and sacculated calculi, various forms of ulceration and vesical growth which cannot be diagnosed bimanually or otherwise. It is in the inferior zone of the bladder that these conditions are mostly to be met with. Given: an incandescent-lamp cystoscope in good working order and well lodged in the bladder, a clear medium, a practised eye and hand, and it can be affirmed beyond dispute that the entire inferior zone can be thoroughly searched without a cutting operation by means of electric light. The following briefly described cases from the literature and my own notebook will serve as illustrations.

Foreign Bodies.—No case could be more conclusive as to the practical value of the cystoscope than the following, which came under the care of Dr. Nitze, the able introducer of this brilliant innovation. F. S., aged 35, had left-sided ovariectomy performed by Martin; the pedicle being secured by several stout silk ligatures. Two years after the operation the patient was suddenly seized with acute cystitis. A calculus was discovered and partially crushed, a silk ligature being subsequently passed along with calculous debris. The patient then came under Dr. Nitze, who performed litholapaxy. In attempting to remove the lithotrite, it was felt to be firmly held by something in the bladder. It was withdrawn with an effort, and a silk ligature was found entangled in the jaws of the instrument. All the stone was removed. The electric cystoscope was introduced, and the ends of a thick glistening white ligature were seen projecting from a deeply congested pit in the mucous membrane of the left wall of

Fig. 1.

the bladder (Fig. 1). The lithotrite was introduced and the liga-

¹ Abstract of clinical lectures upon Electric Cystoscopy delivered in the out-patient department of the London Hospital, January 27th, 1888; and at St. Peter's Hospital, February 15th, 1888.

² Nitze, *Illustrirte Monographie der ärztlichen Polytchnik*, March, 1887; Leiter, *König. Gesellschaft der Aerzte zu Wien*, March, 1887; *JOURNAL*, February 4th, 1888.

ture cleverly caught and dragged out. This and the other ligatures had evidently ulcerated their way through, producing the cystitis and consequent calculous formation.³ Nicoladoni⁴ was able to demonstrate a needle sticking in the right half of the anterior wall of the bladder to a large class of students.

Calculus.—Dittel, finding a difficulty in removing a stone by the lateral incision, introduced the cystoscope, and found that the calculus was projecting from the mouth of a diverticulum. Although the cystoscope will never supersede the sound, yet stones are very easily found by means of the light, and that without much manipulation. They form beautiful objects. I tried the instrument in two cases lately before using the sound, and in both the stone was immediately recognised.

Case 1.—H. H., sent by Mr. Molson, of Plaistow. The patient had had frequency and straining for four years; no hæmaturia; no characteristic pain; residual urine eight ounces. The cystoscope revealed a large irregular brownish coloured calculus, with a flocculent surface lying on the right side of the base of the bladder. Subsequently verified by the lithotrite.

Case 2.—M. C., aged 66, sent by Mr. Hichens with the diagnosis of calculus. The patient had suffered characteristic pain and profuse hæmaturia; a large intravesical collarette of prostatic growth was present. Cystoscope showed the calculus as a brilliant white object, lying in a clot of blood behind the prostatic outgrowths. It was removed suprapubically.

Vesical Growths.—**Case 1.**—N. C., male, aged 70, under the care of Mr. Eve. Patient had been a heavy drinker. Sixteen months before death a profuse hæmaturia appeared, which never subsequently left him, though it was kept under control by hæmostatics. He suffered no pain, nor was he troubled with frequency until the disease was considerably advanced. No growth or stone could be discovered. Microscopical examination of the urine revealed nothing. I was asked to examine him with the cystoscope. The instrument was introduced and turned on to its side, and a sessile lobulated tumour was immediately discovered on the right side of the trigone. The lobes were large and deeply injected. Fig. 2 represents the sketch taken. It was decided to leave it

Fig. 2.

alone. Perineal cystotomy was performed a month after for drainage, and the growth was then verified by digital exploration. On *post-mortem* examination secondary deposits were found in the liver.

Case 2.—M. B., female, aged 55, under the care of Mr. Heycock. Patient had suffered from intermittent hæmaturia for three years. Usually pain on passing clots. On introducing the cystoscope I detected a walnut-sized tumour on the left side of the base. It was a remarkable object (Fig. 3). Its surface was slightly nodular,

Fig. 3. (The mucous film has been omitted.)

but the cracks and crannies were filled with a glistening white layer of phosphatic deposit. Floating away from, but partially

³ Compare results of Maksimov and Znamensky in the use of ligatures in resection of the bladder. *Langenbeck's Archiv*, 31.

⁴ Nicoladoni, "Stecknadel in der männlichen Harnblase." *Wiener Med. Wochenschrift*. 1886. Nos. 7, 8.

attached to the summit was a cloak of clear mucus, which wavered and trembled at every current set up by the movements of the instrument. The urethra was dilated, and the position and size of the growth verified by digital examination; an *écraseur* loop was slipped over it, and its thick stout pedicle slowly cut through. It proved to be a fibro-papilloma. The patient made an excellent recovery.

Seventeen other vesical tumours are to be found in the literature, from which I have selected two (figs. 4 and 5) from Dr. Nitze's

Fig. 4.

Fig. 5.

work.⁵ Fig. 4 represents a pedunculated villous tumour which Dr. Nitze found hanging over the urethral orifice of the bladder of a man aged 50, a patient of Professor Küster's; it was removed suprapubically. Fig. 5 represents a carcinomatous infiltration very similar to Case 2. It was found on the right side of the urethral orifice by Dr. Nitze in a patient of Dr. Israel's.

What rank will the electric cystoscope assume as a diagnostic agent? It is as yet difficult to estimate its future position, for the instrument has become very popular, and improvements are already on foot. It will never bear comparison in general utility with its kindred, the ophthalmoscope, laryngoscope, or otoscope; for even the slight difficulty attendant on its management and the necessity for a battery will debar it from the wide popularity of those easily-managed instruments for the eye, throat, and ear. It will doubtless become an important atom in the molecule of vesical diagnosis, and in some very rare instances that molecule itself. Without, therefore, weakening the analytical judgment of the symptoms of the case, it will probably be turned to when other forms of investigation have failed. Of its future importance in the differential diagnosis of the site of symptomless hæmaturia and pyuria, I have but little doubt. The ureters can generally be discovered and examined as to the nature of their efflux. I have seen in one case of renal hæmaturia a jet of bloody urine issue from the right ureteral orifice into the artificially cleared medium in the bladder, just as a miniature cuttlefish would squirt out its coloured fluid into the water around. The source of the hæmorrhage was thus at once indicated. In the estimation of the advisability of suprapubic removal of prostatic intravesical outgrowth (MacGill's operation) it may prove of use. I have latterly made a point of examining the prostate by its means. Increased visual knowledge of the living bladder may cause the cystoscope to assume an important prognostic position (as may be judged from Figs. 2 and 5), indicating those growths which are removable, and those which it is the wisest policy to leave undisturbed. Lastly, it will be the arbitrator between the *boutonnière* and the suprapubic operation for vesical growths; for those which are single, lightly pedicled, and situated close to the urethral orifice may well be treated by the perineal incision, whilst those which are shown to be multiple, sessile, or springing from dimples in the mucous membrane certainly require the wider access afforded by a *sectio alta*.

⁵ Dr. Nitze, "Beiträge zur Endoskopie der männlichen Harnblase," *Langenbeck's Archiv*, 36.

THE DOSE OF DIGITALIN AND ACONITIN.—The French Pharmaceutical Society have decided not to dispense granules containing more than one-tenth of a milligramme of digitalin or aconitin. Hitherto it has been usual to prepare them with a quarter of a milligramme of one or other of these alkaloids, but owing to the greater activity of the modern crystallised alkaloids, several serious accidents have happened from doses of a quarter of a milligramme, fatal effects in one case having followed the ingestion of this quantity of aconitin.