able handle. (Fig. 3.) The silver tube runs from the bulge at the right end of the staff to the commencement of the curve on the left. The thin stem underneath the handle is for the attachment of a retentive catheter.

New Method of Operating.—First introduce the staff into the bladder; turn the tip of the staff towards the base of the bladder and rectum; feel for the point with the finger in the rectum, and carefully cut the recto-vesical tissues until you can pass the staff out at the anus. Next unscrew the handle and affix the stem of one of Napier's retentive catheters to the thin end of the staff; soap well the India-rubber; then, holding the silver tube firmly in one hand, draw the catheter (excepting its bell-shaped end) completely into the silver tube by withdrawing the staff at the anus. Lastly, draw back the silver tube and catheter through the urethra into the bladder; push in the catheter, and free the silver tube by also withdrawing it through the rectum out at the anus. The campanulate end of the catheter unfolds itself in the bladder, and its stem loosely hangs at the anus.

I will now briefly narrate two cases of perineal fistulæ that have been operated on by this method in the Westminster Hospital.

CASE I.—W. H., 35, M., slater, in 1859, fell on his perinæum across a door. Extravasation of urine resulted, and he was treated in the Yarmouth Hospital by free incisions. On leaving, the urine passed through a fistulous opening in perinæo.

In 1862, a surgeon, while attempting to pass an instrument, pushed the catheter into his rectum; after that, the patient thought operative procedures had better be discontinued.

In 1869, on rearing a heavy ladder, extravasation of urine recurred, and Mr. Teevan admitted him into the West London Hospital. Mr. Teevan on three occasions divided his stricture without any guide, and lastly, on account of the cartilaginous state of the parts, opened the urethra from the stricture to the bladder; No. 12 was tied in, and in five weeks he left.

In 1871, Mr. Barnard Holt split him, because two catheters had been broken and many bent in his urethra by surgeons.

On March 18th, 1873, he was admitted into Luke Ward. The perinæum was a mass of cicatrices and puckerings. There were five fistulæ, one cartilaginous, at the central point of the perinæum. He had complete incontinence of urine. At the point where the penis joins the scrotum was an urethral dilatation holding three and a half drachms of urine, not albuminous. No. 10 sound readily entered the bladder. The man's general condition was good, and his spirits plucky.

On March 25th, 1873, I performed the operation of opening his bladder by the new method. A retentive catheter, as shown in Fig. 2, was inserted, and kept in for six weeks. He most faithfully lay on his back on a circular air-cushion, urine and fæces passing through the circular hole in the cushion. After six weeks of this endurance, four of the five fistulæ were firmly healed; the grand central perineal fistula was not. An urinal was easily adapted to this single outlet, and he left the hospital on June 6th, 1873, well satisfied with the result. The recto-vesical opening was completely closed.

CASE II.—E. P., 24, S., porter, was admitted into Luke Ward on July 24th, 1874. Five months previously, he had gonorrhœa; a month subsequently, a lump formed in the perinæum, and an urinary fistula resulted. The man was of strumous aspect. The urine was not albuminous. A No. 10 sound could be passed.—July 26th. I injected the fistulous course with compound tincture of iodine, but with no result.—August 21st, 1874. The same operation was performed, and the same treatment pursued as in Case I, until September 15th, 1874. The house-surgeon injected the fistulous track with tincture of iodine, which set up urinary infiltration, and the retentive catheter was withdrawn.

My colleague Mr. James Keene (who had charge of my beds during the autumn vacation) repunctured his bladder *per rectum*, and watched the case with much assiduity; but the extravasation continued. On my return, October 5th, the patient's condition was critical, the inflammatory process extending up the abdominal wall to the umbilicus. As the urine freely came through a sloughy hole in his perinæum, I at once withdrew the catheter from his bladder. He was well supported with nutritious food, stimulants, and opium. On October 14th, his perinæum being very sloughy, I laid the parts freely open; he lost much blood during the operation, and died collapsed the same evening.

POST MORTEM EXAMINATION.—The friends only gave permission for the bladder to be examined. The perineal structures were a confused mass of sloughy shreds; there was recent lymph thrown out over the vesical peritoneum. The interior of the bladder was apparently healthy; the first puncture had completely healed; the second admitted but a small pin; the sloughy mass extended along the scrotum upwards over the whole of the abdominal wall below the umbilicus.

The conclusions arrived at from these two cases are the following.—**Case I.** Puncture *per rectum* is insufficient *per se* to cause the obliteration of an intractable cartilaginous fistula, but affords the means of occluding lesser and more recent fistulæ in perinæo. A retentive soft catheter may be retained in the bladder for six weeks, and the wound made in the recto-vesical tissues will subsequently heal. **Case II.** The injection of iodine through a fistulous track in the perinæum of a strumous patient is a dangerous practice; but the injury inflicted on the recto-vesical floor admits of complete repair after a retentive catheter has been twice maintained in the bladder of the same patient for three weeks.

From a careful consideration of both cases, I conclude that there is no evidence militating against a repetition of this operation as a *dernier ressort* in these miserable afflictions, and that it is our duty to lay such experimental facts before the surgical branch of our profession.

ON THE VALUE OF NITRIC ACID IN THE TREATMENT OF DISEASES OF THE NECK OF THE WOMB.

By EDWARD JOHN TILT, M.D.

DR. BRAITHWAITE'S high estimation of nitric acid as a caustic for diseases of the cervix will have due weight with me when I prepare another edition of my *Handbook*; but he will find it already stated there, "that the acid nitrate of mercury and the acid nitrate of silver owe their causticity to their free nitric acid, while the metals may give these preparations alternative properties that their free nitric acid does not possess". Récamier first used the acid nitrate of mercury. It was the principal caustic used by Lisfranc; and, in the beginning of his professional career, Dr. H. Bennet tried to ascertain its effects, as compared to nitric acid, in a certain number of similar cases, and he convinced himself that the acid nitrate of mercury was the better of the two. Dr. Braithwaite's fear of mercurialising the patient need not count for much; for, although I thought right to warn against this possibility, it has never occurred in my practice.

I quite understand the excellent results that Dr. Braithwaite has obtained from the use of nitric acid in a certain set of cases; but I think he is far too general in its recommendation, and that he undervalues nitrate of silver because it is so often used where it can do little or no good. Every practitioner has witnessed the good effects of this agent in morbid conditions of the fauces; and when the mucous membrane lining the cervix is alone inflamed, and *recently* so, there is no better remedy than the liquid or the solid nitrate of silver, and the patient should be cured in from three to six weeks. Occasionally, nitrate of silver causes slight bleeding of an uterine sore; but, judging from my practice, Dr. Braithwaite has exaggerated this occurrence; and then it is easy to have recourse to carbolic acid, or to tincture of iodine. Knowing that such cases can soon be cured by nitrate of silver—an agent which is easily applied, gives less pain than nitric acid, and can scarcely do harm—I still recommend its use to those who have little experience of uterine surgery; for, until they have acquired the habit of using nitric acid, they will find that it has an ugly tendency to run, and so increase the size of the sore to which it was applied, supposing they examine a week or ten days after its application.

In a second set of cases, it will generally appear from their history, that endocervicitis set in after a miscarriage or a confinement, and that it has already lasted several years; without, however, causing any marked damage to the substance of the cervix. Dr. Braithwaite's advice applies admirably to these cases; for their treatment by nitrate of silver is distressingly long, whereas it is singularly curtailed by one or two thorough applications of a strong acid.

I demur, however, to Dr. Braithwaite's recommendation to leave the patient without examination for a month, unless the os uteri be patulous, and the calibre of the cervical canal such as to render its contraction rather an advantage than otherwise. It often happens,

however, particularly in the unmarried, that the cervix will just allow the uterine sound to pass through a mucous membrane so diseased as not to be willing to get well unless it be touched with a strong acid. After applying the acid nitrate of mercury or nitric acid to the cervical canal in such cases, the practitioner had better examine the patient every week, and pass into the cervical canal a pencil laden with a solution of nitrate of silver, or, at the end of two or three months, he would have the annoyance to find that his treatment has induced cervical stricture.

A third and less numerous class of patients comprise women in whom long continued chronic cervicitis is accompanied by considerable hard hypertrophy of the cervix, inflammation of the mucous membrane having caused its surrounding tissues to become hypertrophied. Sometimes the enlargement of both the body and the neck of the womb appears to have begun in defective uterine involution. At all events, when I am consulted on such cases, they have lasted seven or eight years, or longer, to the misery of the patient, to the calamity of the family, and to the opprobrium of the profession, for such cases go the round of all those who are accepted as authorities for diseases of women. The patients do not get cured, because consulting men have no faith in the only way of curing such cases—the application of potassa fusa cum calce, or some equally strong caustic, to the cervical canal. Dr. H. Bennet put this forcibly before the profession twenty years ago. He made converts of Sir James Simpson and of many eminent practitioners in this and in other countries; and I discussed, in the best way I could, this mode of treatment, in all its bearings, in thirty pages of my *Handbook*. The treatment is solidly based on the recognised utility of caustics in a host of surgical complaints, and it has been well established by the Lyons school of medicine; but when such patients come and tell me what they have had done to them by men in authority, I never learn that a strong caustic has ever been applied. I hear of long ineffectual treatment with nitrate of silver, of an acid having been used, of a pessary to support the womb, of uterine dilatation, of division of the cervix, or of the leaving in the womb of one of those thirty intra-uterine pessaries which were handed round on a tray, one night when I had the honour of presiding over the Obstetrical Society of London. I even have heard that there are practitioners who believe that they can benefit their patients by introducing the index into the vagina, to attempt to rectify a moderate amount of uterine displacement, three times a week, for two or three months; but I never hear that trial has been made of the only mode of treatment likely to effect a radical cure of these cases.

To resume the preceding remarks: instead of advising nitric acid in all cases of cervical disease requiring a caustic, as Dr. Braithwaite seems to do, I now hold—1. That, in comparatively recent cases of endocervicitis, nitrate of silver, tincture of iodine, or carbolic acid, suffices; 2. That chronic cases of endocervicitis had best be treated by acid nitrate of mercury or nitric acid; 3. That hyperchronic endocervicitis with considerable cervical hypertrophy requires potassa fusa cum calce, or some strong acid.

Since these remarks were penned, Dr. F. Churchill of Dublin has endorsed Dr. Braithwaite's views respecting the all-sufficiency of nitric acid in all cases of chronic cervical inflammation, and I am sorry to differ from so eminent a pathologist.

THE PRESENT EPIDEMIC OF SCARLET FEVER IN BRISTOL.

By DAVID DAVIES, M.R.C.S.Eng.,
Medical Officer of Health for the City.

II.

Sceptical Misgivings regarding our Present Hygienic Views and Practice with regard to Scarlet Fever.—One failure starts a doubt in a believer's mind; a second confirms it; a series of failures makes one look out for a better creed. Are we doing any good with our present preventive means? If they could be universally enforced, as they have been in isolated families with disciplined minds, I grant they would succeed; but when this is attempted with large thickly packed communities, can they be, or have they ever been, successfully enforced? By the imperfect execution of them through the length and breadth of the land, do we increase or lessen the mortality from disease? I feel certain that we increase the anxiety of the domestic and social troubles of the public by our preventive measures; and I feel doubtful of the answer to the former question. Take, for example, an imaginary but typical case in private practice.

There is a family named X., in easy circumstances. They have five

children—three boys and two girls. There is an epidemic, of a very mild type, of scarlet fever in the locality. Hundreds have had the disease; but there has been no death. The season is July; the weather rainy, the atmosphere moist. The youngest boy, aged 4, contracts the disease in the prevalent mild type. The other four children, by the advice of their medical attendant, are sent to a distance, and escape the infection. The sick child recovers. Two years elapse. The eldest son goes to Eton, Rugby, Marlborough, or some other public school. An epidemic of a severe type has just broken out where he is; he contracts the disease. The parents are telegraphed for to see their son, supposed to be dying. They travel to and fro three hundred miles. The patient ultimately recovers, and escapes only by the skin of his teeth. The school is temporarily broken up. The convalescent is sent to a fashionable watering place before he is properly disinfected, and there he spreads the disease. The second son has escaped, through being kept at a distance from his brother. He has, in the course of time, taken his degree at college; has been admitted as a barrister; has, after a long struggle, made his position; has been married. He passes through Paris on his honeymoon. The weather is cold, the wind easterly. In Paris, an epidemic of scarlet fever prevails. He contracts the disease, and dies in a strange land; and leaves his young bride a widow among strangers. In time, the eldest girl is married to a rich man. She is in due time confined of her first-born. The bells are ringing, and all goes on merrily as a "marriage bell". A fortnight afterwards, that house is desolate. In that house are now only a bereaved husband and a motherless infant; the subtle seeds of this mysterious disease have been inadvertently introduced to the puerperal patient in the nurse's shawl, or on the sleeve of the doctor's coat. I will not follow this case further; but ask, in all seriousness, would not life and suffering have been saved if all this family had been allowed to pass through the disease when it first appeared among them in a mild type, when they were all children? I wish it to be thoroughly understood that, as a health-officer, I have never had the moral courage to discard my former profession of faith, and to undertake the responsibility of giving practical effect to my doubts. I have never used disinfectants so extensively as during the present epidemic, and yet our failure is complete.

The doubts I have expressed do not in any way extend to typhus and enteric fevers, small-pox, and Asiatic cholera.

It is a fact beyond contradiction that occasionally this tiger of pathology seems to stalk abroad, having left both claws and teeth at home. Could we not play with him *then*? Inoculation from mild cases of variola previous to the discovery of vaccination proved of immense benefit. We cannot inoculate scarlet fever, but it can be imported. We can choose our type and season of the year. I lay these thoughts before the profession most humbly, "seeking for more light" under a failure in the midst of a great epidemic. I have never practised the suggestions, either in public or private, except in my own family, and with my own children, and these, thank God, with the best result.

Is there a milder exanthem of an allied species that can prevent or modify this disease?—Rötheln is nearly allied; is very infectious, but harmless. Does it modify scarlet fever, or is it modified by it? I have for some time looked upon it with affection, but am afraid to theorise on the subject. Can anyone throw light on this unexplored field? Observation convinces me that there is some unknown condition which gives immunity to some persons from scarlet fever: what is this condition? An analogous condition was known in the Vale of Berkeley regarding small-pox before the days of Jenner, and might have remained unknown to the outer world had not that great man unearthed it.

Who will be the Jenner of scarlet fever?

This pest, which broke out in Italy about the middle of the seventeenth century, is now two hundred years old. It has surely committed havoc enough among our race. In the kind provision of nature, there must be an antidote somewhere. Who will discover it?

A Delusion concerning Bristol.—It appears in some of the daily metropolitan papers that there is an impression abroad that my good and talented friend Dr. William Budd succeeded in preventing epidemics of scarlet fever; and that he was in some way or another connected with our sanitary arrangements. Both these views are erroneous. Scarlet fever was never more prevalent and more fatal in Bristol than when Dr. Budd was at the zenith of his well-deserved fame. No family suffered more severely than his own. He lost his eldest son from the disease—a blow from which, I believe, he never fully recovered. He could never mention his loss to me without tears. In individual and isolated families, his instructions have succeeded, but not on a large scale. My good, kind, and most talented friend Dr. Budd had never any connection with the sanitary arrangements of Bristol, either as director or as administrator.