rubber tubing, the other end of this tubing being slipped over the end of a gum-elastic tube, such as is usually sold with Higginson's syringes. This gum-elastic tube was then passed into the rectum. It had at its base an ivory plate of the size of a halfpenny, which helped to retain the air in the rectum. After blowing the bellows for about four minutes, the sigmoid flexure and descending colon became inflated, but there was no great distension for a quarter of an hour; this was chiefly due to imperfect action of the bellows, which I then attended to, and was able to improve temporarily; but there was also what one might call a safety-valve action of the rectum, so that, when the distension of that part of the bowel was too great, some of the air escaped by the side of the tube, and blood and mucus were forced out with it. The distension now became more visible; and, after about half an hour, it was evident that the air had passed through the intussuscepted part and through the ileo-caecal valve, and that the small bowel was partly distended. The process of inflation took about forty minutes altogether. From time to time, the action of the bellows was stopped, and the abdomen manipulated gently to help the return of the bowel to its natural state; but the air was never all allowed to escape, until the end of the operation, when it was desirable to make as perfect an examination of the abdomen as possible before allowing the child to recover consciousness. Within ten minutes of commencing the inflation, the mass had retreated upwards from the left inguinal region, and soon it could not be felt. When the abdomen was quite flaccid again and the child still insensible, there was a slight feeling of resistance in the right inguinal region, probably due to the swollen state of the extremely congested part of the bowel that had formed the deeper and more advanced part of the intussusception; and I had strong hopes that we had accomplished the desired object, and saved the child's life without running the risk of opening the abdomen.

At 9 P.M., the child was sitting up in bed, comfortable and laughing, and would not admit that the abdomen was tender, but I was careful not to press very heavily. The pulse was 122 per minute; there had been sickness once, and an attack of slight pain once since the operation, and a considerable quantity of blood and mucus had been passed.

August 7th, 11.30 A.M. The child had been very comfortable indeed; his pulse was 92; there had been no further action of the bowels, but a little vomiting on two occasions, the vomit consisting of some of the milk and ice-water that he had taken, and having a slightly green tinge. He had had one very slight pain in the night. The abdomen was not so flaccid, but not at all tender, and no lump or swelling could be felt on either side. His diet still consisted of milk and ice.

8.30 P.M. The pulse was 100, and the boy was comfortable; there had been no further sickness; no tenderness nor swelling was discoverable. The bowels had acted naturally at 8 P.M.; no blood nor mucus being passed. There had been no more pain; and from this time the boy continued to improve rapidly, having no other bad symptoms.

REMARKS.—*Cause.* I believe that the increased and irregular peristalsis accompanying diarrhoea is a common cause of intussusception; and this is in agreement with the fact that intussusception is much more common in the summer months than in winter.

Diagnosis.—The case could not be mistaken after a careful examination of the abdomen, and the history alone made one strongly suspect its true nature; the mother's account of slight diarrhoea for a few days, then sudden severe colicky pain and vomiting recurring at intervals, followed in rather over four hours by the passage of blood and mucus, with much tenesmus, in a child under six years, made the existence of intussusception highly probable; and the presence of the tumours rendered it quite certain. It seems to have been a case of the ileo-caecal variety of intussusception, such as is much the most frequent in children. There is a little uncertainty as to the real character of the tumour in the right inguinal region. When first I saw the child, it was probably part of the bowel involved that was felt there; and, having once felt it unmistakably, I, perhaps, did not afterwards pay so much attention to it as to the mass in the left side of the abdomen. For, when the intussusception was plainly felt in the left inguinal region, the tumour in the right could only have been the portions of meso-colon and mesentery corresponding to the intussuscepted bowel stretched extremely tight.

Prognosis.—This, apart from the chance of successful treatment, was very bad. Recovery of children by separation of the invaginated part is a rare result. Under treatment, the prognosis was good, because the intussusception was not probably of more than fourteen hours' duration when inflation was practised, and, therefore, so much the more likely to be reduced by that process.

Treatment.—I think there can be no doubt that, when once intussusception is diagnosed, an anæsthetic should be given, and inflation tried as the most successful treatment known; and, if that be entirely unsuccessful, the tumour not changing its position at all, I believe that, where the diagnosis is certain, the proper step to take is to open the

abdomen at once, and draw out the bowel from its enclosing sheath of neighbouring bowel as carefully as possible, and close the wound. This, of course, applies especially to cases seen early; for there is no doubt that immediate treatment is of the greatest importance. By delay, the intussusception will probably increase; if not, adhesions may form, or strangulation of the enclosed bowel proceed to a dangerous degree, both complications lessening the chance of successful treatment so much that, after awhile, it is wiser to trust to the small chance of recovery by gangrene and separation of the intussuscepted portion of bowel than to attempt to return it to its normal position. In thirteen cases (referred to in the New Sydenham Society's *Biennial Retrospect of Medicine and Surgery for 1873-74*, page 341), in which the abdomen was opened for intussusception, five recovered. This is an encouraging result; and, I believe, far above the number that recover after the separation of the bowel.

CASES ILLUSTRATING THE SUCCESSFUL TREATMENT OF SUFFOCATIVE GOITRE WITHOUT EXCISION OF THE THYROID GLAND.*

By LENNOX BROWNE, F.R.C.S.ED.,

Senior Surgeon to the Central London Throat and Ear Hospital; Surgeon and Aural Surgeon to the Royal Society of Musicians; etc.

At the meeting of this Association in Edinburgh last year, Dr. Heron Watson related some cases of excision of the thyroid gland on account of goitrous enlargement, and received the support of Professor Lister, who showed a gland which he had removed in the method advocated by Dr. Watson. This gentleman had taken precautions against the most obvious danger of such a procedure—hemorrhage—by previously tying the thyroid arteries; and he had undoubtedly had greater success than any other surgeon who had performed the operation. Nevertheless, one fatal case had occurred in a series of seven, and others in which alarming hemorrhage had to be reported. I ventured on that occasion to express my opinion very strongly to the effect that the operation was totally unnecessary, because there were other remedial measures involving no danger whatever, and completely removing the enlargement, and with it the distressing and dangerous symptoms to which the disease frequently gives rise. I further stated that the procedure I advised was so simple that the patient was not required to remain in bed a single day, or even to cease from work; and that the after-disfigurement was very much less than could be the case, even under the most favourable circumstances, when an incision had been made "from the thyroid cartilage to the sternum".

The two particular procedures to which I referred as suitable for the form of goitre under consideration were, the injection of tincture of iodine into the substance of the gland after the plan of Lücke of Berne, and the introduction of a seton; and I stated that I had had several cases in my own practice: and had also seen many others treated with great success by colleagues.

As many members of the Association appeared sceptical of the benefits to be derived from treatment so simple, I determined at the next annual meeting to relate some cases. I shall on this occasion recount but six, all of which have been sent to me by, or have otherwise been under the notice of, independent practitioners. In these cases, also, relief has been sought for and afforded on account of distressing symptoms, and no case is included in which treatment was adopted solely to remedy a disfigurement.

It is somewhat difficult to say in exactly what cases one may expect benefit from the iodine, and in which the seton may be indicated beforehand as preferable. The effect of the former is to produce absorption of the cellular portion of the gland; but the fibrous tissue is often bound more tightly together by such absorption, so that, though the whole lump is reduced, it is more dense, and a varying number of more or less hard fibrous nodules remain. The after-marking from use of the injection-needle is, however, *nil*; and in the softer forms of goitre this treatment is most successful, especially if suppuration, which is never excessive, be produced, so as to cause breaking up of the fibrous as well as of the cellular portion of the tumour.† This is what always takes place by use of the seton. The after-marking by this method is extremely slight, and can, in the case of a female, be easily covered by a velvet ribbon round the neck.

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Sheffield.

† Since I have read this paper, Dr. Webb of Wirksworth, a very bronchocelous district, informs me that he has had great success by injection of a solution of iodine, four times stronger than that of the *Pharmacopœia*: this has been, however, in polycystic goitres. He agrees with me, that in the denser forms the area of inflammation produced by the iodine injections is often very limited.

In cases where the enlargement is general and the trachea is embraced on each side, I greatly prefer the seton, since the relief is much more rapid; whereas not unfrequently there is actually a temporary increase of distress after the first or second injection of the iodine.

There are many points of clinical interest in the following cases on which I would have liked to dwell, but for want of time. I would especially draw attention to the fact that, except when the tumour is substernal and causes dyspnoea by exercising direct pressure on the windpipe, extension of one or both lateral lobes behind the trachea and oesophagus is always the cause of trouble. The actual variety of hypertrophy also is, in all these cases, fibrous. Cystic goitre, forming as it does, for the most part, a swelling in front of the neck, which grows outwards and very often attains an enormous size, seldom causes dyspnoea. As a rule, suffocative bronchoceles are not of large size. It is not the dimensions, but the unyielding nature and the position of the tumour, that is in these cases the cause of the symptoms.

Latterly I have been in the habit of completing treatment by a course of baths and waters at the Bromo-Iodine Spa of Woodhall, a spring of very high therapeutic value, but the merits of which appear to be but partially recognised by the profession.

In conclusion of these prefatory remarks, I trust that my cases will show that the very serious disease to which they refer can be treated safely and effectually without the knife; and it may be remarked that there is nothing in such treatment to prevent the success of radical measures, should the milder means fail. In all cases, however, which have come under my notice, relief has been speedy, complete, and permanent. The tumour generally disappears entirely, and I have never seen an instance in which it has recurred.

CASE I. Substernal Enlargement of the Isthmus and Left Lobe of the Thyroid Gland, Dyspnoea, and Dysphagia: Iodine Treatment: Cure.—Miss Dora J., aged 19, consulted me on December 9th, 1873, by the advice of my friend Dr. Hope of Bolton Row, on account of shortness of breath and difficulty of swallowing. The history was, that for three years there had been gradually increasing shortness of breath, with enfeeblement of the general health. The respiration had become laboured on exertion. She was unable to lie down, except when propped up with many pillows. She suffered from a most distressing loud spasmodic cough, being obliged to hold on to a chair or other object of support during an attack, and was afterwards so prostrate as to have to lie down and rest. Her singing-voice had failed her early in the progress of the case. For the last twelve months, her speaking-voice had become enfeebled, very quickly fatigued, and had often been quite lost. Her power of swallowing had been also greatly reduced; she could now take no food unless sopped or minced, and was obliged to take liquid with each morsel of food. There was, however, no pain in swallowing. She suffered from constant headache, flatulence, and constipation. Menstruation was rather irregular and scanty. She had become very enervated and debilitated. During all this time she had observed that the collars of her dresses had become tighter, and were constantly requiring to be let out, or were left unfastened. There was, however, no visible undue enlargement of the neck; and no medical attendant in England, France, or Germany—and in each of these countries she had sought advice—had directed attention to this point.

On examination, I found a moderately hard oval tumour, of the size of a small hen's egg, over the trachea and rather to its left side. More than half of it lay between the windpipe and the sternum. The least pressure with the hand on the tumour produced increased embarrassment of breathing and brought on an attack of coughing. With the laryngoscope, it was seen that there was pressure on the left recurrent nerve, as well as directly on the trachea, for the left cord was but imperfectly abducted in inspiration.

Six injections of thirty drops of tincture of iodine (pharmacopoeial preparation) were made at intervals of a week or fortnight. After the first injection, which rather increased the symptoms, recovery was uninterrupted. The final result was an entire disappearance of the tumour and of the symptoms. I have frequently seen the patient since; and she visited me on July 29th last, to show me, at my request, how well she was. She has never had the least recurrence of any of her former discomfort. Her speaking-voice has returned with full strength, and has not again failed her. She sings occasionally; but her singing-voice has never regained its former power, and she says that singing always fatigues her throat.

CASE II. Fibrous Enlargement of Right Lobe and Isthmus of the Thyroid Gland: Extreme Dyspnoea and Stridor: Dysphagia: Iodine Treatment: Suppuration: Cure.—Frederick P., aged 18, residing at Folkestone, applied at the Central London Throat and Ear Hospital, September 15th, 1874, on account of extreme difficulty of breathing. He stated that for more than two years his parents had noticed his

breathing becoming increasingly laboured; but, before that time, his neck had been observed to be large, and he had found the collars of his shirt getting tighter and tighter. The difficulty of breathing had for the last six months been so severe that the least exertion produced stridor and choking. He had been obliged to entirely give up his work as a gas fitter's apprentice; and he had undergone much medical treatment, allopathic and homoeopathic, without the least benefit. For the last eighteen months, he had suffered from increasing hoarseness, and from pain in swallowing, as if the food had to be forced down beyond an obstruction.

On examination, there was found to be a fibrous enlargement of the right lobe and isthmus of the thyroid gland, of the size of a large hen's egg. The neck measured $15\frac{1}{4}$ inches. With the laryngoscope, the vocal cords were seen to be congested and weakened both in their adductive and abductive action. The pharynx was also congested. Respiration was noisy and stridulous even when the patient was at rest. Distress was immediately increased on the least exertion.

I showed the boy at the Harveian Society in October, and commenced treatment about that time, injecting tincture of iodine, thirty drops of the pharmacopoeial preparation on each occasion. This I did for a month three times a week, with the result of producing a small abscess in the gland, which having been well poulticed, I opened and introduced pledgets of lint to keep up the discharge. To show the depth of the abscess, I may mention that the pledgets would at first go in more than four inches without packing. This, with poulticing, was continued for six weeks. The whole treatment lasted three or four months. The tumour entirely disappeared, and with it all trouble of respiration and voice. I saw the patient with my colleague Dr. Llewelyn Thomas on July 28th, when we satisfied ourselves that there was not the least enlargement remaining, and an almost unappreciable scar.

The lad is now working daily at his trade, and does not suffer the slightest inconvenience. He has, in fact, never had a day's illness since he was cured of his neck. The measurement is now $13\frac{1}{4}$ inches over the site of the former swelling. Mr. Bateman of Folkestone, who "perfectly remembers that the lad had a very large bronchocele pressing much on the trachea and causing considerable difficulty of breathing", further writes on July 30th: "The young man R. P. has been to me to-day to show me his neck. I am glad to find there is not a trace left of the large goitre he suffered so much from previously."

CASE III. Fibrous Enlargement of Isthmus and Left Lobe of the Thyroid Gland, causing Dyspnoea, Dysphagia, and Sympathetic Derangement: Treatment by frequent Injections of Iodine, so as to produce limited Suppuration: Cure.—Miss R., aged 24, residing at Finsbury, consulted me in October 1875, by the recommendation of Dr. Thorowgood, on account of suffocative symptoms due to thyroid enlargement. The patient, a fair, rather anæmic girl, of slight build and of highly nervous temperament, gave the following history. For a long time she had been conscious of having a full throat, but it was only during the last six months that her breathing had been affected. During this period, she had suffered from a sensation of choking when lying down, accompanied with palpitation of the heart. At first, she was awake in her sleep with a feeling of suffocation, as if some one were strangling her; and during the day she would suffer only from a sensation as of a ball rising in her throat. Latterly, however, the symptoms of strangulation had been constant. It was impossible for her even to lie on the sofa. She did not suffer from sleeplessness, but was afraid to sleep for fear of being suffocated; and her brother or a friend had sat up with her for many nights past. On the slightest exertion, her breathing became short, and the action of her heart was hurried. Walking, even up stairs, occasioned the greatest fatigue, and she was in a state of great general prostration and debility. Her power of swallowing had been so enfeebled, and as it were interrupted by sense of constriction, that she could only take sopped food accompanied with frequent draughts of liquid. She had acquired the greatest distaste for animal food. She suffered from constant floodings, preceded or followed by cold. She felt generally cold, and found great trouble in getting warm in bed or by any artificial aid, as hot-water bottles, etc. Recently, she appeared to have lost power in the upper limbs, and could hardly lift her arms; had constant frontal headache, with great weight and pressure in the occipital region. She suffered much from flatulence with acid eructations. The bowels were constipated. The menstruation was regular in appearance, but always painful, deficient in quantity, of very pale colour, and passing in clots. I need not say that, under Dr. Thorowgood's hands, general therapeutic treatment had been active and judicious; but the patient had got worse rather than better.

On examination of the neck, I found a hard, firm, uniform swelling of the isthmus and left lobe of the thyroid body, in all as large as a

Tangerine orange. While the central swelling dipped low down, so as to lie partially between the sternum and windpipe, the left lobe extended quite around the trachea and gullet. The voice was very feeble and at times almost lost. On laryngoscopic examination, the adductive power of the vocal cords was seen to be much weakened; but there was no visible narrowing of the trachea.

On October 9th, the central tumour was injected with iodine from above downwards, so as to endeavour to relieve at first the substernal pressure. Thirty drops of the pharmacopoeial tincture were used. The next day, the patient came with considerable increase of the dyspnoea, and having passed a very bad night. On the 11th, I repeated the injection, with the result of seeing, on the 13th, that the skin over the point where the syringe had entered was red and tender. I repeated the injection on this date, and ordered the patient to commence poulticing and fomenting on the 14th. In a few days, suppuration took place. I did not open the abscess, but on the 24th injected the side-swelling, a procedure which was repeated a week later. In the meantime, the small abscess had pointed and commenced to discharge. It was kept open by small pledgets of lint for four weeks, when it gradually filled up. Only five injections in all were made, the amount each time being about thirty drops.

The following is taken from my notebook on December 18th, about ten weeks after commencement of treatment.

"The tumour is reduced to a very small hard lump the size of a small common nut-kernel. The patient sleeps well. She has lost all sensation of strangling since the first six weeks of treatment; suffers no longer from globus hystericus. The swallowing is still weak, but there is no longer a feeling as of stoppage of the food from a sense of constriction of the gullet. Still feels rather cold, but has regained power in the upper limbs. Circulation generally improved, and palpitation much less urgent. Menstruation devoid of pain and of clots, and of better colour. Bowels still confined, unless Friedrichshall water is taken. Digestion and appetite generally much improved. She is far from strong, but takes short walks daily, and is able to attend to her brother's household. The local scar is not as large as a pea."

July 26th, 1876. The patient visited me, at my request, on this date. She has remained quite well in every respect since she left my care more than six months ago, and there is not the slightest sign of the former tumour, nor is there any scar.

CASE IV. *Enlargement of the Thyroid Gland, principally of the Right Lobe, displacing the Trachea, pressing on its Right Wall, and giving rise to considerable Dyspnoea and Sympathetic Derangement.*—Elizabeth C., aged 38, married, but without children, and residing at Luton in Bedfordshire, a goitrous district, consulted me at the Central London Throat and Ear Hospital on December 15th, 1875, on account of shortness of breath caused by a swelling in the neck. Her history was that, fifteen years previously, she had observed a small swelling as of a pea in the centre of the throat. As it increased, it seemed to move to the right side; and for the last four months a similar small tumour has shown itself also on the left side. No pain or inconvenience was experienced till twelve months ago, when the breathing was first affected, becoming short not only on exertion, but being always laboured even when sitting still or walking. The voice also became quickly fatigued and weak, as if for want of breath. For some months she had been unable to lie down, but had to be supported in bed in a sitting posture by pillows, and to draw her knees up towards her body. On attempting to lie down or to put her legs straight, the breathing became more difficult. She suffered great pain in her right shoulder, and could not even allow the bedclothes to touch the right side. She had a troublesome hacking cough, with tenacious, clear, saliva-like expectoration, rarely expectorating phlegm, but, if so, experiencing relief. She had had occasional but not frequent serious suffocative attacks in the night. Eight months previously, the patient had noticed that she did not perspire on the right side of the face, neck, and upper arm; but she perspired below the right elbow and in the right hand. The right side of the face would be pale and dry, while the left would be flushed and the perspiration stand out in beads. The line of demarcation was distinct and in the median line. For ten years she had had a tendency to bleeding of the nose; the attacks had been more frequent lately. The right eyelid had perceptibly drooped, and was sometimes almost closed. She had for years been subject to browache, and latterly also to occipital headache. Menstruation had for the last six years been excessive, in frequency of appearance, in duration, and in amount. The bowels were regular; the appetite fair. There was no distaste for animal food. She had suffered greatly from sleeplessness, and the periods of sleep had been much shortened. She was quite unable to do any work on account of her breathing, but she had only felt bodily weak and disabled for the last six months. She had become much emaciated. Her family history was, that both father and mother had

died of consumption. She had but two sisters, both of whom were married, with families, were in good health, and without any tendency to thyroid enlargement.

On examining the neck, a swelling of the size of a large hen's egg was observed on the right side and front of the neck, just in the region of the thyroid gland. The vessels of the neck were pushed back, and the windpipe pressed right out towards the left. The thyroid cartilage was not displaced. There was a smaller lump, the size of a walnut, on the left side, rather behind the trachea, and also pressing back the carotid. The neck measured $14\frac{3}{4}$ inches over the swellings. With the laryngoscope, the trachea was seen to be not only displaced, but its calibre largely encroached upon by the tumour of the right side pressing on the inner wall, so as to give the appearance of a large semi-oval non-pedunculated tumour. With the sphygmograph, there was found to be increased arterial tension of the right radial, with undue pronunciation of the secondary waves of that side. The pulse was 100 and weak. The temperature was normal on the right side, and one degree above normal on the left. With the ophthalmoscope, both discs were seen to be equally anæmic; the right pupil was unduly contracted and but little acted on by light.

This patient was exhibited at the Pathological Society on December 21st; and on the following day I passed a seton right through the whole mass from left to right, prescribing also perchloride of iron and quassia, and phosphorised cod-liver oil at night. Disintegration was very slow, and the setons were retained for six months. Long before that time, however—in fact, very soon after introduction of the seton—the breathing had improved, and about the middle of June it was quite well. Perspiration had been re-established in the right arm, axilla, and neck, but not on the face. The pain in the shoulder had gone. The patient could lie moderately high in bed. She had gained flesh; she slept better. The ptosis had almost disappeared, and the pupils acted equally. She has now been at Woodhall a fortnight, taking baths and the water, and constantly wearing the compress of concentrated liquid. I saw her two days ago, and she has still further improved since her stay there. The tumour is very greatly reduced, the neck measuring barely $12\frac{1}{2}$ inches; and, with the laryngoscope, the trachea is seen to be normal in direction, and in its circumferential capacity and uniformity.

CASE V. *Enlargement of Isthmus and Left Lobe of Thyroid Gland, causing Dyspnoea and Dysphagia: Treatment by Seton: Cure.*—Charlotte H., aged 22, single, a barmaid, was first seen by me at the Central London Throat and Ear Hospital on March 16th, 1876. She stated that she had noticed a gradual enlargement of the neck for two years; that for the last four months her breathing had become distressed; and that lately she had been quite unable to lie down, but had slept in a chair. Swallowing also had become difficult. There was a constant feeling of choking and of a lump in the throat. Her health otherwise was good. Menstruation was regular; and, if her breathing were only relieved, so that she could sleep, she said she would feel quite well. She was, however, greatly debilitated. The swelling of the neck was general, but it was on the left side that the tumour appeared to embrace the windpipe. The measurement was $15\frac{1}{2}$ inches, and the hypertrophy was of the fibrous variety. An injection of tincture of iodine was made at the first visit. Great pain was complained of at the time by the patient. The next morning, very early, she came to my house suffering from extreme dyspnoea. She stated that she had not slept a minute all the night, that she had been unable to take any food but liquids, and that she felt as if she should be strangled. With the consent of herself and her friends, I at once inserted a seton. The effect was most marked. She passed a very fair night, and within twenty-four hours found her breathing was quite easy. Suppuration became established in a few days; the seton discharged, freely, and the tumour diminished in size most markedly. The seton was removed in a month; and on April 26th she went to the hospital at Woodhall. Mr. Cuffe, under whose care she there was, has kindly supplied me with the following note.

"This patient has had five baths a week, has taken daily one tumbler of spa water in divided doses after meals, and has had a compress of the concentrated water (*Mütter-lauge*) fifty times stronger than the natural water constantly applied. No other treatment has been pursued. There was some swelling of the central lobe remaining on admission, and the seton-points discharged for a few days after arrival; but at the time of dismissal, at the end of a month, all discharge had ceased. No thickening is perceptible, and no mark of the tumour beyond the cicatrices, which are mere points."

On her return to London, Charlotte H. visited me. The tumour had entirely disappeared, and with it every distressing symptom. Her general health had greatly improved by her stay at Woodhall, and she was about to take a fresh situation.

CASE VI. *General Fibrous Enlargement of the Thyroid Gland, causing Dyspnoea: Unsuccessful Treatment by Counterirritation, Electrolysis, etc.: Treatment by Seton and Mineral Waters: Cure.*—Sarah M., aged 13, a native of Louth in Lincolnshire, applied at the Central London Throat and Ear Hospital June 7th, 1875, on account of difficulty of breathing occasioned by enlargement of the neck. The thyroid gland had been observed to become generally and progressively enlarged for the last two years, and for the last six months breathing had been noisy and difficult. She occasionally had a cough of a laryngeal and spasmodic character. Her swallowing had not been difficult or painful; but she constantly felt a lump rising in the throat, with a general sense of constriction. Her general health was good. The bowels were rather constipated, and she had never menstruated. On examination, there was seen to be a general moderately large enlargement of the thyroid gland. The neck measured $15\frac{3}{4}$ inches.

Ointment of biniodide of mercury was ordered, with iron tonics, and a five-grain pill of aloes and myrrh each night. In the course of two or three months, menstruation was established; but the tumour did not diminish. In January, I commenced a series of experiments with electrolysis, and pursued that treatment on this patient as well as on seven others. [I may mention, in passing, that I only got a really beneficial result in one case and partial diminution in another, both of them being simple glandular enlargement of the non-fibrous variety.]

Sarah M. underwent twelve operations in four weeks, having two needles introduced each time, and a strength of from sixteen to twenty-five cells of a Stöhrer's battery. Not the least good was effected; in fact, both tumour and dyspnoea appeared to increase, so that early in March I introduced a seton right through both lobes and isthmus of the gland. The seton was retained for six weeks; and in June the patient was sent to Woodhall, where I saw her two days ago. She has been an inmate of the Woodhall Hospital for six weeks, taking the baths and water, and wearing the compress; and her general health has improved most markedly. Locally, there is still some slight fullness remaining, but all distress is relieved. The child plays and runs about without any trouble.

THE MILITARY MEDICAL SERVICE OF TURKEY.

By JOSIAH WILLIAMS, L.R.C.P. ED.,
Surgeon to the Central Military Hospital, Sienitza.

Now that Turkey engages a large share of public attention, I think that a few remarks on her military medical service may prove of some interest to many of my medical brethren in England. I have been about three months in the service, and have had a good opportunity of becoming acquainted with the treatment of the wounded and sick, the former more particularly, as few but wounded are admitted into my wards.

Whilst at Constantinople, I crossed the Bosphorus two or three times, and visited the hospital at Scutari. This hospital is splendidly situated on rising grounds, no houses near it, facing the Black Sea. The English cemetery intervenes, and is as nicely kept as any of our London cemeteries. I accompanied the chief physician in his round, and observed that he looks over the food and tastes it before it enters the wards. The wards are wide, long, but not very lofty; they are well lighted, and capable of being well ventilated, but ventilation appears to be a matter of very secondary importance in all the hospitals I have visited. A large wide verandah runs round the outside of the wards the whole length of the building.

The interiors of the wards look clean, and the patients look comfortable and well cared for. The *French Pharmacopœia* is used in Turkey, and all prescriptions are written in French. The diets range from 1 to 6. No. 6 is the highest, and consists of a good supply of meat and rice, and bread. Hushaf, or stewed raisins, is an extra, and is a very favourite thing with the Turks. Mahalabie is also an extra, consisting of rice and raisins, and is often given with No. 5 diet, as that contains less meat. Nos. 1, 2, 3, 4 are soups, or soups and rice. This hospital is a large one, and contains chiefly medical cases. It holds, I think, six or seven hundred beds, but this I am not sure of. The wards are fumigated two or three times a day with incense.

In due time (the Turks never hurry themselves, no matter what it is or how important), I received my commission, and was fortunate in being sent to the front, where severe fighting was going on. I had to pass through Salonica, and thence by rail to Metraniza, thence a four days' journey on horseback to Sienitza, passing through Novi Bazar. The little hospital at Metraniza consisted of a few old hay-lofts, etc., knocked into one. I found a very large number of troops

encamped by this village. Two of the camps were on perfectly flat ground by the side of a river. In wet weather, the place was like a swamp. The latrines are placed much too near the camps, and all around and close to the camp is freely used by the soldiers. The out-patients of this hospital chiefly suffered from ague, dysentery, and diarrhoea. The hospital at Novi Bazar is a large one, and contains four or five hundred beds. The wards are clean, and the chief medical officer here (Oshmed Bey) is, I think, a very suitable man for the position he holds. He has studied in Paris, and seems well up to his work. The privy accommodation here is of a very rude description, and large open gutters convey the fecal matter away from the hospital. The inmates of this hospital are chiefly convalescents from Sienitza. I stayed here for two days, and was much struck by the extraordinary number of cases of goitre I saw; many of them very large indeed. I am sure it is no exaggeration to say that every third person has this disease more or less developed.

After resting two days at Novi Bazar, I started for Sienitza. I halted one night in a fortified camp and arrived at Sienitza next day. Before entering the town, we passed by a large encampment of Arab troops—about ten thousand or so. The weather at the time was very hot, and the atmosphere in the neighbourhood was extremely unpleasant to the olfactory nerves. This was easily accounted for, as the calls of nature were relieved all around and close to the camp. The tents were pitched on perfectly flat ground, and were never removed until the rain and snow compelled their removal, and not then until the whole place was like a great dismal swamp. Need I say that dysentery, diarrhoea, ague, rheumatism, and bronchitis engaged our attention very much after this?

The Sienitza Hospital is a short distance from Javor, otherwise called Cantremet, where very severe fighting, under Mehemet Ali Pasha, has lately been going on. The hospital is a large quadrangular building placed in an elevated position overlooking the town. It contains six hundred beds; but, during the late severe battles near here, the floors also were covered with wounded. The whole is under the able superintendence of Ohannes Bey, an Armenian, and a very efficient courteous gentleman, who was much pleased on the arrival of English surgeons here. It has been necessary to occupy about twenty wooden houses here, and the Greek church also, with medical cases. There are about a dozen medical men to attend to the patients. One has to attend the houses, and each of the others has the superintendence of one, two, or three wards.

The visit is made at 8 A.M., accompanied by the *pharmatien*; his business is to take down the diets and medicines ordered on the patients' cards, and at once make up the medicines and see that they have their proper diets. As my two wards contain very few but surgical cases, my surgeon accompanies me round the wards after I have ordered the diets and medicines. He has to dress, under my supervision, about one hundred and twenty or one hundred and thirty cases. I ought to explain that my surgeon is equivalent to a dresser in a London hospital. He has no diploma, but simply learns to dress the wounds and bandage. This one dresses and bandages very nicely, but certainly requires looking after. Any narrow piece of wood wrapped around with one thin layer of wadding will answer his purpose as a splint, and he persists, unless I am there, in plugging a wound with charpie long after it is required, and, in many cases, has caused large sinuses where the wound would have healed up two or three weeks sooner had he not been too officious. We have no lint; charpie is used and answers quite as well. Sloughy and gangrenous wounds are dressed with cinchona powder and camphor, or decoction of cinchona, and a very good dressing it is too. We have had no carbolic acid, permanganate of potash, or disinfectant of any kind, since I have been here, until within the last three days. Notwithstanding this, we have been very free from gangrene and erysipelas until now. I have had two or three cases of erysipelas within the last few days following wounds of the head. Here they use a mask of some mercurial preparation in the form of an ointment, leaving it on for three or four days; and the application is certainly very effective. The absence of gangrene and erysipelas I attribute to the free ventilation of the wards. Every morning, I had a fight about this; but I carried my point until quite lately. Now that the cold weather has set in, not only are the windows nailed down, but every crack is pasted over with paper. At first, I wrenched the nails out, as I could not get any one else to do so, but found them more securely nailed next day, so I have been obliged to give up the unequal contest. As there is no fire-place in the room, the wards smell very offensive in the mornings where so many wounded are crammed together. My wards are each about one hundred feet long by twenty-four feet wide.

A few cases of typhoid fever have cropped up within the last few days, also one case of small-pox. Within the past four weeks, the