announced that "the town which suffered most from epidemics is Perth, where 23.0 per cent. of the deaths are ascribed thereto". In February I had publicly pointed out that, if my opinions regarding the connection between the water-supply and the mortality of Perth are correct, the mortality from zymotic disease should be greatest when the river is at its lowest—the dilution of sewage therefore least; and I am only sorry to find that my vaticination was so correct.*

I trust that those who have done me the honour of listening to a history that is not, I think, of mere local interest, will now do me the further favour of freely expressing their opinions, or recording their experience—the question for discussion being: Whether or not, and what, mischief arises from analytical chemists and civil engineers usurping the place of physicians in questions which necessitate the possession of special medical knowledge and experience?

CASE OF TUMOUR OF THE SKULL, WITH HEMIPLEGIA OF THE SAME SIDE OF THE BODY.

By EDWIN RICKARDS, M.B.,

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Tumour of the Left Posterior Fossa of the Skull, causing Absorption of the Left Half of the Cerebellum, and pressing against the Pons Varolii and Medulla Oblongata: Hemiplegia of the corresponding Side of the Body.—Harriet T., aged 39, was the mother of ten children; the last four died shortly after birth. She had always been strong and well up to October 1870. Until then, she had not lost a child. From that date to her death, she was subject to headache and epileptiform fits, occurring at intervals varying from a week to two months. In July 1874, she for the first time experienced difficulty in walking straight; and one day she was accused of being intoxicated. In the following October, she noticed that the limbs on the left side were weaker than formerly. In March 1875, she had an unusually severe fit, lasting three hours. When she rallied from it, she found that she had lost so much power over her left side that she could not raise the arm or leg on that side; this loss of power was increased by subsequent fits. In January 1876, I saw her. There was paralysis of the left side of the body, though the fingers and toes could be moved slightly. The whole of the left side of the face was completely paralysed. The left eye could not be closed; its conjunctiva was insensible; its pupil was unaffected. There were complete deafness and defective vision on the left side. The sensibility of the left side (limbs and face) was greatly diminished. The face was drawn to the right side. There was no heart-disease, nor albumen nor sugar in the urine. All these symptoms persisted until her death, which occurred suddenly, as she was being carried up stairs to bed, in November 1876—her intellect remaining clear to the last. I saw her many times. Her various complaints were that she had no power or feeling in the left limbs; that she could not sit up, for she had no power in her back; that the pain in the left side of her head was constant and very severe; that she could not eat, for she had no appetite, and she could not swallow solids, as they seemed to lodge in her throat; that, though always thirsty, she had great difficulty in taking liquids, as they brought on fits of coughing; that she had great difficulty in clearing her throat of phlegm in the morning; that she could not feed herself, for, although her right hand was strong enough, it was unsteady. In April preceding her death, she had great exacerbation of the pain in her head; and, for three weeks, she lost control over her bladder and rectum, and was much troubled with cough.

POST MORTEM EXAMINATION, twenty-four hours after death.—The body was much emaciated. There was no abnormality in the vascularity of the surface of the brain, nor was there any effusion there. On section of that organ, the tissue was more tough and less vascular than usual, and had a faintly fawn-coloured tint throughout. All the ventricles were much dilated, and contained about eight ounces of clear watery fluid. A crow-quill could have been passed through the iter à tertio ad quartum ventriculum. On raising the brain from the skull, the vessels of the base were healthy; and nothing abnormal was noticed there, until a tumour was seen projecting through the aperture in the tentorium against the pons Varolii and the medulla. On dividing the tentorium, the tumour was found to occupy the left posterior fossa of the skull, and was covered over by a thin layer of cerebellum about half an inch thick. The remainder of the left half of the cerebellum had not been displaced, but removed by absorption, as if by a spoon;

* A signal illustration is to be found, moreover, in the fact, that in September 1876, in a single industrial school for girls in Perth, of a total of seventy three pupils, forty-three were simultaneously prostrated with typhoid fever—a fever that may be said never to be absent from Perth; the assigned cause of the said outbreak being scarcity of water for flushing drains.

it was the upper surface which remained, and this was attached by the peduncles, which were thin nervous bands. There were no adhesions between the brain and the tumour. The tumour was about the size of a hen's egg, soft but tense, and covered over with a smooth vascular membrane, doubtless altered dura mater. This membrane had to be divided before the morbid mass could be scooped out. It had eroded the temporal bone to such an extent that the thumb could be placed in that bone. The consistency of the tumour was not quite the same throughout, but for the most part resembled bacon. The tumour was fawn-coloured throughout. In the mass was a thickened cord, which was the distal end of the eroded seventh nerve. The pons Varolii and medulla on the left side were not eroded, but, by the pressure of the tumour, had been reduced one-third of the size of the right halves. The left half of the medulla felt like a bag half-filled with feathers containing a solid body, which was the olivary body. The lungs were engorged and filled the chest. The heart was empty and healthy. The other viscera were healthy. There were no signs of syphilis or tubercle. The tumour was composed entirely of fine nucleated oat-shaped cells. It was without stroma, and contained numerous vessels. Doubtless it was a sarcoma arising from the dura mater. The tumour only could be removed for examination.

REMARKS.—The facial paralysis and loss of hearing on the left side are readily explained by the facial and auditory nerves on that side being eroded through; and, from the position of the tumour, there was doubtless pressure on the fifth, eighth, and ninth nerves, which would explain other symptoms. As to the loss of power which affected the left limbs, there seem two possible explanations, viz., pressure of the tumour on the non-decussating fibres of the medulla, and the accumulation of fluid in the ventricles. Vulpian (*Moniteur des Sciences Médicales*, June 25th, 1861) records a case where a tumour, situated in the right posterior fossa of the skull, was accompanied by paralysis of the limbs of the right side; and he states that the accumulation of fluid in the left lateral ventricle was greater than that in the right; but, in the case above recorded, both ventricles seemed equally distended. The extensive damage to the cerebellum tallied with the early symptoms of loss of power of co-ordination.

EXTRACTION OF FOREIGN BODIES FROM THE EAR.

By WALTER RIVINGTON, M.S.Lond., F.R.C.S.Eng.,

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IN THE BRITISH MEDICAL JOURNAL of July 15th, there is an article by Dr. H. A. Alford Nicholls, of Dominica, West Indies, in which, whilst concurring with and commending the general rules which I ventured to offer (*BRITISH MEDICAL JOURNAL*, March 18th, 1876) for the extraction of foreign bodies from the ear, he calls in question the soundness of my belief that the ear-scoop should be banished from the surgical armamentarium. In support of this instrument, which I had the temerity to characterise as a "rude implement" and to condemn, Dr. Nicholls relates an interesting case in which he was enabled to remove the trunk of a cockroach with the ear-scoop. He did not succeed in removing it with forceps; and he did not employ syringing, because he believed that "all the syringing in the world could not have shifted the mass in the slightest degree". Unfortunately, or fortunately perhaps, I have had no experience in the removal of cockroaches, and I should hesitate to hazard an opinion on a case which I did not see; but, in the present state of my knowledge, I do not altogether perceive why a dead cockroach should not be displaced by careful syringing. Nor should I have anticipated that, with a good light, a mirror, a Toynbee's speculum, and proper forceps, any serious difficulty would be experienced in dislodging the intruder. Of course, the ear-scoop may be used successfully in some cases, and, in skilled hands, without the infliction of injury to the tympanic membrane and chain of bones; but its adaptability to the extraction of foreign bodies is essentially limited. It is, at least in my judgment, a clumsy instrument. It occupies a great deal of space; and it must be insinuated by the side of the foreign body, and reach its posterior part, to be of any service at all.

Now if, in any given case, the ear-scoop be capable of being introduced by the side of the foreign body and made to act in its rear, that foreign body cannot well be very formidable, or so block up the meatus as to offer insuperable difficulties to the more gentle influence of a stream of water. If, on the other hand, the foreign body, as it so often does, fill or nearly fill the meatus, the ear-scoop is worse than useless. When the ear-scoop has gained the rear of the foreign body, it is very liable, even in skilful hands, to do mischief. Contact with

the membrana tympani can scarcely be avoided when the foreign body is deep; and, even if no wound be inflicted, the chain of bones may be disagreeably jarred and agitated. Weighted with all these disadvantages, the ear-scoop is placed in cases of instruments as the means of extraction of foreign bodies; and the student or practitioner who has not learnt sounder practice flies to it, perhaps, as a matter of course. If it were clearly understood that it is only to be used, as Dr. Nicholls advises, in the last extremity, or after consultation with an aural surgeon had failed, I should not wish to remove it from a place among surgical instruments, for I feel convinced that its opportunities for mischief would be so curtailed as to render it unnecessary to say another word against it. Nor would I so strongly object to its employment in cases where there is so much room in the meatus that the surgeon can see precisely what he is doing and where he is placing his instrument. But to any instrument, ear-scoop or other, the conditions of whose employment necessitate risk to the membrana tympani, I am prepared to offer a very stout opposition. If Dr. Nicholls will kindly refer to my remarks in the JOURNAL of March 18th again, he will see that he has accidentally misquoted and misapprehended what I said about allowing foreign bodies to remain in the ear. He says that I advise that *in all instances* the foreign body should be allowed to remain in the ear until syringing effects its removal. I did not lay down any such doctrine, or anything resembling it. My advice about allowing a foreign body to remain in the ear had reference solely to cases, happily exceptional, in which prolonged attempts with ear-scoops, etc., had been made unsuccessfully, causing tenderness, disturbance, and disposition to bleed, so that the view of the practitioner was impeded or prevented, and the difficulty of extraction greatly increased. In such cases, and in such cases only, did I recommend delay for the purpose of allowing the parts to recover a more natural condition. Dr. Nicholls's criticism, therefore, of my supposed doctrine, having lost its objective point, need not, so far as I am concerned, be disturbed. But I may say this, that if, in a case such as I referred to, the friends disputed my advice, I should at once recommend them to seek the opinion of some practitioner in whom they had thorough confidence; and I certainly should not be personally annoyed, whatever might be my fears for the integrity of the conducting apparatus of the ear in question, if I heard that the foreign body had been extracted on the selfsame day with an ear-scoop. I am very much afraid that the surgeon, armed with the ear-scoop or other extracting instruments, and the foreign body together, are sometimes more potent for mischief to the anatomy of the ear than the foreign body by itself would prove even if allowed to remain in the meatus for a lengthened period. Every one of experience must have met with cases in which foreign bodies have so remained for weeks and months without ill effects.

With Dr. Nicholls's remarks about the necessity of care in the use of instruments I cordially agree; and I agree, though not precisely in the sense in which he wrote the passage, with the remark that, "if proper care be employed, there is no more danger of injuring the ear with an extracting instrument than there is of making a false passage with a catheter". "If proper care be employed"—this is precisely the difficulty. It is most difficult without experience to learn what proper care is. No class of cases more commonly comes under the surgeon's observation than cases of stricture complicated by false passages; and no doubt, if foreign bodies in the ear were as common as stricture, the general use of ear-scoops would be followed by a parallel prevalence of injury to the tympanic membrane. Yet in either case the operators would probably affirm with confidence, and fully believe, that proper care had been exercised. Many of the cases of stricture in which false passages are made are cases in which the immediate use of a catheter is neither necessary nor expedient—cases of retention following a drinking bout in patients who are the subjects of stricture easily permeable under ordinary circumstances. Such cases yield to warm baths, aperients, and opiates; and with such it is wiser, if it can be managed, not to interfere instrumentally until the subsidence of the congestion resulting from the festivities. Similarly, it is wiser, in my opinion, to trust to the influence of a stream of water for the removal of a foreign body from the ear, than to attempt its displacement with rigid extractors working in a space extremely contracted and with so much risk to the integrity of one of the most delicate structures in the body.

That cases not amenable to syringing may occur I do not dispute, although I have not yet met with one. In such a case, I should prefer using a suitable pair of forceps, which could be guided with the utmost precision by means of the mirror and speculum, to employing an instrument so intractable as the ear-scoop.

After all that has been said, it is satisfactory to observe that the real difference between my views and those of Dr. Nicholls is extremely small, and would probably disappear altogether if our interchange of ideas were not impeded by the distance which divides us.

CASES OF SCURVY IN THE POLAR SEAS.

By ROBERT SMITH, F.R.C.S.Ed., Heckfield, Hants.

THE cases from which the following summary has been drawn occurred under my care during a cruise in the seas to the west of Greenland, extending as far north as to the entrance of Smith's Sound. There were seven cases in all. Four very severe ones, two of less severity, and one in which the disease was very slight, but still sufficiently well marked as to leave no doubt of its nature. As the leading facts of the voyage among the ice may be of service in giving a correct appreciation of the circumstances antecedent to the outbreak of the disease, they are briefly given.

The ship reached the ice on March 27th. On the thirteenth of the following month it was beset, and, failing to force a passage to the north, two days later was frozen in, the temperature having fallen so low as to freeze the mercury. We continued thus amid frequent falls of snow until May 3rd, when, after great exertion, the crew succeeded by sawing and blasting in clearing a channel through six thousand feet of ice, by which the vessel gained the open water. Some days later a thaw set in, when it was found that the potatoes and vegetables generally had suffered to such an extent as to be useless as food. They were thrown overboard. Thus, from an early date, the most important antiscorbutic elements of diet were cut off. Rice and oatmeal were allowed *ad libitum*, with a regulated quantity of peas twice weekly. Regular rations of rum were not allowed, this being reserved for periods of exertion.

No case of scurvy showed itself during the warm summer, or while on the sheltered Greenland side of the Straits. But in the month of August, after a period of great dejection, owing to having been again beset for several days, and amid a succession of cold misty weather, during which the men were much exposed, the disease appeared in the case of a young man, careless as to cleanliness. He had not suffered from it before, but had been looked upon as a healthy sailor, always fit for duty. There was a preliminary lassitude, the spirits fell, the pulse was slow, the appetite failed, and digestion was bad, while the gait became stiff and awkward. Then a dull pain was complained of in the sural muscles, and the tendons of the knee-joint became contracted. In the month of September, there were three other cases. Two of the patients became giddy on slight exertion, one had pains in the epigastrium, and the gums in all were swollen and livid; while in two there was a darker line following the closely alveolar edge about a line from the teeth, which in these patients were loose. The breath became more or less offensive in all. Bleeding from the gums took place at first on slight provocation, latterly without any immediate cause, and in one case there was epistaxis. The man who was decidedly most affected had formerly had the disease while in the Chinese waters, and his was the third case in order of occurrence on the present occasion. With him, dark spots appeared first on the muscular space between the tibiae and the fibulae of both legs, then on the thighs; those on the fore legs gradually coalescing into large patches of a dark colour, quite flabby under the touch.

In all, the treatment was very much cramped by the absence of fresh vegetables in sufficient quantity—the quantity of preserved ones being too small to meet the cases satisfactorily. Vinegar was served with the food, and lime-juice. Owing to the low state of the circulation in some, porter was added, with a result that encouraged its addition to the rest. The cases progressed favourably except two; in these, the weakness advanced, and they were carried ashore, where, on the restoration of fresh vegetables, they were quickly restored. In one of the milder cases, citric acid was tried at first; it was of little service alone, but seemed more useful when neutralised by bicarbonate of potash or soda.

In all the cases there had been the same deprivation of vegetable food as served from the ship's stores, although rice and oatmeal has been allowed as wanted. But as some carried private supplies, and as it was impossible to ascertain who took advantage of the unlimited supply of these articles or who did not, nothing can be rightly inferred from this as to the invasion of the disease. But a careful study of the circumstances of the crew antecedent to the outbreak showed that (in addition to the primary cause, the long deprivation of succulent vegetables) there were secondary elements deserving at least consideration. First among these secondary causes, then, the long duration of cold misty weather claims a place. The snow covering the floë became wet, the floë itself soft and rotten, with holes here and there into which the men were constantly slipping. All day long they were wet to the knees, nor did the severe exertions they underwent do anything more than weaken their already overtaxed constitutions; indeed, this