12 per cent. solution to the vulva and inside of the vagina during the slow progress of a case of marked perineal rigidity. I do not of course mean that the case is hastened much, but I do mean that the pain is lessened to an extraordinary degree.

4. My observations lead me to conclude that it is chiefly in primiparous (slow) labours that cocaine is of use (notably in breech cases), or in any case possibly in which the os dilates slowly and the perineal rigidity is well marked.

5. In cases in which the os has to be dilated by tents, I have soaked and partly enlarged the tents in a hot oleaginous solution of the alkaloid before introducing them, with, as I think, considerable success; and in cases of tender and irritable vaginae in which, for any reason, the speculum has to be used (gynaecological cases), I have adopted the practice with great advantage of previously painting the vaginal walls with the solution of cocaine in castor-oil before alluded to.

I am quite conscious that all the foregoing may be a "twice-told tale" to many of your readers, but as anything that tends to mitigate the patient's pain and the practitioner's weariness is important, I have ventured to give you the above summary of three years' observations, none of them claiming to be more than suggestive, but all I hope fairly accurate.

ON AURAL EXOSTOSIS.

By GEORGE P. FIELD, M.R.C.S.,

Aural Surgeon to St. Mary's Hospital.

THE following cases of operation for the removal of aural exostoses, given in the order of their occurrence, are in continuation of the series published by me in the JOURNAL for February 20th and 27th, 1886, pp. 338 and 385.

It is still not uncommonly stated that, except in urgent instances, this operation should never be attempted, and for the assigned reasons that its risks are very great, and the benefit likely to be derived from it but small. Now, in publishing this second series of cases—which, be it noted, are not selected, and may therefore be regarded as representative—I wish again to emphasise the fact that, whereas the risks of the operation, when carefully performed, are practically *nil*, the benefit to be derived therefrom is lasting, and to many people of the utmost importance. That, moreover, the operation, by providing a vent for pent-up pus, may give relief from serious and ever-present danger to life, is another fact which I have, with good cause, insisted upon in the past. It was but a few months ago that I had occasion to strongly recommend a gentleman to permit the removal from one of his ears of a large exostosis. Behind it there was an accumulation of pus, for which there was no external outlet save a small aperture, the closure of which might at any time jeopardise his life. This gentleman's medical man, however, decided—on what grounds he did not demonstrate—that the risks of an operation would be too great, and accordingly nothing was done for the ear. If this patient's ear escapes becoming completely blocked, and he has no further trouble with it, it may even be maintained that an operation could never have been desirable; for there are some persons who seem to be quite content that, if not they, certainly their neighbours, should go through life providentially afflicted with a large amount of preventable deafness, and exposed at all times to a remediable chance of meningitis or cerebral abscess. The condition of the gentleman just referred to reminded me very much of that of Mr. F. G., of Ipswich (Case XIII in the series I published a year ago), when, contrary to my advice, he put off operation until a more convenient season, thus compassing his own death. The great and lasting benefit that an operation may confer is well shown by my first case, Dr. G. M., who since 1877 has never for a day lost his hearing, though before then he was stone-deaf from exostosis in both ears, and consequently debarred from society and the active exercise of his profession.

As I have already pointed out, the presence of exostoses is no certain evidence that operation for their removal is desirable. Multiple exostoses not infrequently leave, by mutual interference of growth, a passage in the meatus quite adequate for the conveyance of sound, and need not therefore be interfered with; and, again, the very deep situation of a growth in the meatus may render any attempt to remove it hazardous. With these limitations it may confidently be maintained that in all cases where the presence of a hard aural exostosis is a source of inconvenience or danger to a patient, its extirpation should be effected; and to this end the safest and most satisfactory means is undoubtedly the employment of the drill. It remains for me to add that in operating I now use for the protection of the middle ear, instead

of a guard to go behind the exostosis, what I regard as an important improvement upon this, namely, a small cross bar at the end of the

drill-holder (as made for me by Mr. Hawksley, see fig. 1). This prevents the insertion of the drill into the meatus to a depth greater than its exposed length (Fig. 2), and all risk of a slip of the instrument is thus obviated. Fig. 3 represents the drills of various lengths.

CASE XVII.—D. McC., a boy, aged 6½, was sent to me by Mr. F. W. B. Jones, of Ross, on February 8th, 1886. I found the right meatus occupied by an exostosis, seated on the anterior wall, the origin of which was doubtless attributable to abscess during an attack of measles in March and April, 1882, and remittent otorrhoea. After operating with the drill on May 3rd, 1886, I followed my usual course of treatment in such cases, under which the discharge gradually ceased, and hearing was much improved.

CASE XVIII.—H. G., a clerk, aged 31, came to me at St. Mary's Hospital, April, 1886, complaining of increasing deafness of the right ear. Fifteen years previously he had experienced whistling noises in the ear, and, after somewhat more than a twelvemonth, during which there was discharge from each meatus, he had noticed that his hearing was becoming impaired. He was treated awhile for the discharge and deafness, but, he says, without success. On admission at St. Mary's, the patient stated that there had been numerous abscesses in his right ear, which had always been worse than his left; also, that he had first noticed obstruction in the right ear eight months previously, when pieces of bone-like fragments of honeycomb used to come from it. I found the right external auditory meatus to be blocked by an exostosis of soft cancellous tissue. Operating on May 12th, 1886, after administration of an anæsthetic, I broke away the growth bit by bit. The subsequent treatment, which was followed by restoration of hearing, consisted in the careful maintenance of cleanliness of the meatus, and the local use of stimulant antiseptic lotions.

CASE XIX.—F. W. B., a gentleman, aged 20, who came to me October 18th, 1886, first noticed a discharge from the right meatus about 1872. For this he can assign no origin, save possibly a scald in childhood. Nothing was done for the ear, beyond the application of a blister or two behind it, until May 1st, 1879, when a polypus was detected. The removal of this was deferred in consequence of an attack of scarlet fever on May 5th, but was subsequently effected. At Easter, 1886, there was slight bleeding from the right ear for two

or three days. As the patient's deafness—due, as I discovered, to an exostosis—continued to increase, he was brought to me by Mr. Chaldecott, of Dorking, with whose assistance, on September 21st, I operated with the dental engine. The systematic cleansing of the meatus and the repeated application of a solution of carbolic acid constituted the main after-treatment, and the patient is now steadily regaining his hearing.

CASE XX.—H. C., a gentleman aged 61, was sent to me by Dr. Lawrence, of Chepstow. Three or four years previous to his first visit to me, in 1886, he had twice suffered from deafness of the right ear, consequent, apparently, on abscess caused by the ingress of water into the meatus. After a slight discharge for a fortnight, the deafness had on both occasions entirely ceased. In August, 1886, subsequent to bathing every other day or so during four weeks at Whitby, deafness came on in the left ear, lasting a month. The patient, who, when he came to me, was very deaf in both ears, and suffered from considerable pain in the right side of the head, presented an exostosis on the posterior wall of each external meatus. On October 20th, 1886, I drilled through both by means of the dental engine. No pain or injury to the general health ensued, and hearing was restored some five weeks from that date to the left ear, and a few days later to the right. On January 6th, 1887, he wrote as follows: "I am very happy to be able to tell you that I am as nearly as possible cured of my deafness. When I come to town I will certainly give you a call, that you may see how successful your operation has been."

CASE XXI.—Emma H., a hospital patient, came to me November 3rd, 1886, with an exostosis of the left ear, the size of a large pea, and completely closing the external auditory meatus, to the anterior wall of which it was attached by a small pedicle. The development of the growth had begun with shooting pains in the ear two years previously, and deafness had gradually increased, until it had now become almost absolute. In this case the use of strong forceps sufficed for the ready removal of the whole of the exostosis.

CASE XXII.—K. W., aged 34, formerly a nurse, was admitted into the Manvers Ward, St. Mary's Hospital, November 10th, 1886, on account of an ill-defined swelling below the left ear, corresponding in position with the parotid gland, together with typical facial paralysis. The patient, though unhealthy-looking, was fairly well nourished. Her family history was on the whole good, but she had lost her mother from softening of the brain, and a brother had occasional attacks of paralysis. Except for sick headache, at one time her general condition may be said to have been quite satisfactory. Ophthalmic examination showed white streaks upon the retina; by urinary tests, however, no albuminuria could be detected.

Five years previous to admission into hospital, she began to suffer pain behind the left ear; and three years later she noticed in that situation a hard, somewhat tender swelling. This slowly increased in size; and occasionally there was a slight viscid and rather offensive discharge from the ear. The facial paralysis commenced soon after the swelling became apparent. The pain behind the ear, for which opiated fomentations have been used, was described as of a stabbing character, and as running in a line from the ear to the throat.

By November 20th, the patient's face had become much swollen, and she had endured several attacks of megrim with vomiting. She was seen by me on the 25th, when I discovered in the left meatus, attached by a broad base to its posterior wall, and all but completely occluding its cavity, a large exostosis, which on percussion with a probe gave a clear ringing sound, as though it were composed of hard bone. The application of forceps proved the growth to be of loose construction, so that numerous small pieces of it, together with some granulation-tissue, were easily removed, and a passage through the meatus was secured. The following week the passage was enlarged with the dental drill sufficiently to allow of a free discharge of pus, the pain in the head being thereby much relieved.

CASE XXIII.—The following case is one of a class in which immediate removal of an exostosis is not to be advised. E. L., a girl of 14, came to me at St. Mary's Hospital, October 24th, 1886. She had from babyhood suffered from otorrhoea. On November 12th, after removal, under chloroform, of a polypus in the right meatus, I found on its upper wall, and quite close to the drumhead, a large bony outgrowth. As the meatus is not yet (and may never be) occluded, the position of the growth certainly for the present contra-indicates operative interference.

CASE XXIV.—Major R. B., sent by Dr. Smith, of Newport, to consult me, November 23rd, 1886, gives the following history of his case. After three years' service with his regiment in Burmah, he contracted endemic fever, and was invalided home in 1867. On recovery, he discovered himself to be persistently deaf in the left ear, inasmuch that a watch held to it was scarcely audible. He remarked his deaf-

ness most in a noise, and particularly in that caused by driving, railway travelling, or the conversation, as at a dinner-party, of several persons together. Near the close of 1884, he learnt from his local medical attendant that he had an unnatural growth in each ear; as, however, his deafness was not worse than usual, he attached no weight to this piece of information. In September, 1886, however, after a day's shooting, he experienced complete deafness in the right ear; this left him as suddenly as it had come on, but only to return six weeks later. By the advice of his medical man, whom he now again consulted, he saw me on November 23rd. Finding him to be the subject of double exostosis, I recommended operation by drilling. This I performed on December 6th. The patient did well, keeping his bed for only a short time, and suffering but slightly. He returned home on December 18th, twelve days after the operation, able to resume his usual occupations. The hearing of the right ear is now completely restored; that of the left, which was regained in fair measure for a few days, we may hope to be permanently restored, as in other cases, on the removal of the granulations blocking the meatus. He says he "now hears as well as he did twenty years ago."

CASE XXV.—Mr. E. L. P., aged 27, was sent by Dr. Thursfield to consult me, December 7th, 1886. He first noticed a growth in his left ear about July, 1881, but thinks he must have been deaf for some time before then. By the advice of his medical attendant he visited an aurist, who diagnosed an exostosis, and by syringing dislodged from behind it a piece of wax about as large as a good-sized pea. Being recommended not to undergo an operation unless increase in the bulk of the tumour became perceptible, the patient, though often very deaf, troubled himself no further respecting his condition until near the end of November, 1886. He then, while washing, began to suffer from persistent pain in his ear. Dr. Thursfield, whom he consulted shortly afterwards, suggested he should see me without delay. On December 9th the drilling of the tumour was successfully effected, the operation lasting forty minutes. The patient made an excellent recovery, and on January 3rd, 1887, he felt perfectly well; all discharge had ceased, and a watch was audible at 12 inches from the ear.

THORACIC ANEURYSM.

By C. W. SUCKLING, M.D. LOND., M.R.C.P.,
Physician to the Queen's Hospital, Birmingham.

DURING the past two years, I have had under my care at the Workhouse Infirmary and at the Queen's Hospital altogether twenty cases of thoracic aneurysm. A brief summary of the chief symptoms met with in these cases may be of interest.

Of the twenty cases, three were women, seventeen men; none of the patients were under 30 years of age.

Between 30 and 40 years there were 8 cases

40	50	4
50	60	6
Over 60		2

All of them had led very laborious lives; seven of the men had been porters, and had been accustomed to carry heavy weights. A history of syphilis was obtained in four cases only, and dated back several years in each. There was a history of syphilis in one of the women; in the other two, heavy work seemed to have been the cause. In only three cases could a history of sudden onset of symptoms be obtained. In one man, pain in the chest came on immediately after being crushed at a political meeting. In another, pain was felt after lifting a sack of flour. In the third case, pain in the chest supervened immediately after ligation of the external iliac artery for femoral aneurysm.

Of all the symptoms, pain was the most constantly present. Pain was complained of in eighteen of the twenty cases. When present, it was always felt behind the upper portion of the sternum, occasionally down both arms, more frequently down the left alone. The pain varied much in intensity, and was always relieved by rest and by iodide of potassium. Dyspnoea was a prominent symptom in eight of the cases, in some occasional, in others constant, but with exacerbations. Stridor on inspiration and expiration was marked in five cases; this is, of course, a symptom that should at once lead to a careful examination of the chest for aneurysm, yet it is frequently put down to asthma or bronchitis. Inequality in the radial pulses, dysphagia, hoarseness, brassy cough, and inequality in the pupils were frequently present. Sphygmographic tracings were taken in most of the cases, and one of the few purposes for which the sphygmograph is useful is the localisation of thoracic aneurysm. In a case of innominate aneurysm, in which dyspnoea was an urgent