keeps a public-house, is a life-long abstainer from all alcoholic liquids.

CASE 7.—This patient also was in his eighty-sixth year when he came under my care. He was then suffering from cataract in both eyes, fully formed on the right eye and commencing on the left. I extracted on the right eye without iridectomy, restoring excellent sight. A decade later he expressed a wish to have the left eye operated on, and I repeated the same process without iridectomy on that eye. As he was in his ninety-sixth year I was anxious that he should be exposed to as little risk as possible and therefore treated him in my private hospital and surrounded him with every care

FIG. 3.

and attention. The day after the operation, however, he got up, dressed, and returned home, where there were no facilities for treatment whatever. Nevertheless, he made an excellent recovery without any prolapse of iris and has now in his hundred-and-first year most excellent sight both for reading and for distance. This case is remarkable and I therefore with his permission present your readers with a portrait of the Nottingham centenarian (see Fig. 3).

Nottingham.

THE TREATMENT OF OZÆNA BY CUPRIC ELECTROLYSIS.

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It is probable that of all the nasal diseases which, by a somewhat haphazard nomenclature, have been loosely labeled "ozæna," foetid atrophic rhinitis is the one for which the term has most frequently been used as a synonym. When employed in this specific sense it is understood to indicate a disease characterised by a chronic course, by atrophy of the nasal mucosa and sometimes of the osseous structures of the turbinates and by the formation of foetid crusts, and all this without definite discoverable cause.

Until within recent years the treatment of this malady was largely confined to dealing with the troublesome symptoms associated with the disease. It was found that by continued local measures the formation of crusts and the intense foetor could to a large extent be kept in abeyance; and inasmuch as these two disabilities when unchecked were almost as potent to banish the victim from society as was the power given by Kleisthenes to the Athenians, it must be admitted that this was something gained. For a long period, however, no noteworthy advance was made, and although remedies which were said to have healing properties were from time to time suggested it was not until the year 1892 that Jouslain¹ proposed the method of cupric interstitial electrolysis which up to the present date appears to have progressed farthest in the direction of cure. Cheval described the procedure in 1895 and asserted that he had obtained 90 per cent. of cures, the majority of these after a single *séance*, but a committee appointed to investigate the

matter by the Society of Belgian Laryngologists and Otolologists, to whom he had communicated his paper, were far from being able to share his optimism. Bayer,² Brindel, Gouguenheim and Lombard,³ and McBride⁴ have all given their experiences of cupric electrolysis, and to the article by the last-named author I am much indebted.

I have had the opportunity of testing the efficacy of this treatment in 15 cases and the details of the method as employed are briefly as follows. The nasal cavities were first thoroughly cleansed by a warm alkaline and antiseptic douche. Cocaine was then applied to the nasal cavity to be treated, and after a few minutes the parts were dried and the electrolysis needles inserted. The copper needle, attached to the positive pole, was passed into the inferior or middle turbinal, usually the former, and the steel needle into the septum. The strength of the current varied, but it was found that from three to 10 milliamperes were the most suitable intensities, although currents as strong as 20 milliamperes were on a few occasions used. As a general rule, the current was allowed to pass for 10 minutes, and it appeared that no advantage accrued from prolonging the application beyond this period of time. After each *séance* the patient was usually instructed to refrain from syringing the nose until the next examination. The number of applications given depended upon the improvement noted; five *séances* were the maximum.

Although at least one death has been attributed to this treatment I did not myself observe any after-effects which were calculated to give rise to alarm. A patient occasionally complained of slight giddiness and some general disturbance after the application, a few stated that they suffered from neuralgic pains in the teeth and face, and one patient reported that there was some swelling of the face. Two children (aged 11 years and 14 years respectively) each developed a small perforation in the septum as one of the results of the treatment, but in neither case did the event give rise to any permanent inconvenience. With currents ranging from 5 to 10 milliamperes there was considerable discomfort and the cocaine appeared to act only in reducing the amount of pain caused by the insertion of the needle; there was, however, a tendency for the unpleasant sensations caused by the passage of the current to become lessened in the course of a few minutes. In analysing my own observations I have divided the cases into (1) those in which the patients were cured; (2) those in which the patients were much improved; (3) those in which the patients were temporarily improved but relapsed; and (4) those in which the patients were not improved.

1. *Cases in which the patients were cured.*—These were two in number.

CASE 1.—The patient was a female, aged 38 years. There was a history of marked crusting and offensiveness for at least 15 years. Examination revealed considerable atrophy of the turbinates and marked crust formation. The patient was given two applications of electrolysis (one in each nostril) at the Manchester Throat Hospital in October, 1899. Since that time she has presented herself at intervals for re-examination and was last seen in October, 1901, but no crust or odour could be detected. She has therefore been free for two years. The patient thinks that her sense of smell has slightly returned.

CASE 2.—The patient was a female, aged 20 years. There was a history of considerable nasal discharge and crusting for several years. Foetor had been marked for at least 12 months. The patient was given two applications in December, 1900. She had not syringed since that date and had not been troubled with foetor or crusting. Now (October, 1901) the nasal cavities are quite free from crusts or odour, although the atrophy of the turbinates persists. She has therefore been free from symptoms for 10 months.

2. *Cases in which the patients were much improved.*—These cases amounted to five, all of whom with one exception (Case 3) were seen in October, 1901, and the reports were made at that date.

CASE 3.—The patient, a female, aged 26 years, came under treatment 18 months ago. When she was last seen she reported that she had had to syringe about four times in three months (as compared with twice daily before treatment). She had been much bothered with crusts in the naso-pharynx; when last seen, however, there was practically

² Revue Hebdomadaire de Laryngologie, Mai, 1896.

³ Annales des Maladies de l'Oreille, November, 1898.

¹ Moure: Bulletin de la Société Française d'Otologie &c., tome xiii., p. 1.

⁴ Edinburgh Medical Journal, March, 1899.

no crusting in the nose, but there was marked pharyngitis sicca. The fœtor was very much less; it was, indeed, often absent.

CASE 4.—The patient was a girl, aged 11 years. She had been under treatment about 12 months before. At present she has to syringe her nose two or three times in three months, as compared with daily syringing before treatment. There is said to be now no crusting, but there is slight occasional offensiveness, on account of which the patient still syringes.

CASE 5.—The patient was a girl, aged 17 years. She had been under treatment two and a half months before; there had been no syringing since that time. The nares are at present free from crusts or odour, but there is a small, white, and non-offensive crust on the right side. Although she has been free for two and a half months the treatment is too recent for the case to be fairly considered a cure.

CASE 6.—The patient was a female, aged 23 years. No crusts or odour could be detected, although the syringe had not been used since treatment, two months previously; but the patient states that some crusts of moderate size have been expelled and that slight offensiveness has occasionally been noted.

CASE 7.—The patient was a female, aged 21 years, in whom the last application had been made three weeks before. There had been no crusting or fœtor up to the date of the re-examination, but she is still under observation. This case is so recent that it is perhaps hardly fair to include it.

3. *Cases in which the patients were temporarily improved.*—These cases amounted to six and the patients in all except one reported their condition in October, 1901. Of these the patient in Case 8 has remained free for three months and then relapsed; in Case 9 the patient relapsed after two months; in Case 10 the relapse occurred after several weeks; and in Case 11 after one month. In Case 12 the patient relapsed after 10 days, but she has now only to syringe three times weekly as compared with twice daily before treatment. In Case 13 the patient improved slightly but was lost sight of.

4. *Cases in which the patients were not improved.*—In two cases (Case 14 and Case 15) no improvement was shown; Case 15 was lost sight of after one application.

All the cases were females and in all except one the disease was bilateral. The patients who suffered from marked atrophic pharyngitis gave the most trouble; and it was observed that whilst the treatment applied to one nostril had a beneficial and, so far as could be ascertained, an equal effect on the other, the action of the remedy on the dry naso-pharynx was practically *nil*. The exact means by which the treatment takes effect is still a matter for conjecture. Possibly fœtid atrophic rhinitis is a tropho-neurosis which is benefited by the stimulating effect of the electrical current on the part; on the other hand, it may be that the formation of copper salts at the positive pole is the essential factor.

Whilst I am quite convinced of the relative value of this method of treatment my own small experience leads me to be somewhat diffident of concluding that a permanent cure is to be expected in any but a minority of the cases; and a re-examination, after an interval of several months, of a number of patients who were all too prematurely considered to be cured has impressed upon me that freedom from symptoms for one, two, or even three months does not insure that a patient shall be free from relapse. At the same time, the benefits of cupric electrolysis appear to be so far superior to those of other procedures that it may be looked upon as the best remedy that has yet been found; and although for the victims of "ozæna" it will not repair the shrunk turbinals or restore intact the sense of smell, it will, in a certain percentage of cases, so reduce, or even banish, the tendency to fœtid crust-formation that a state of wholesome comfort—the *ultima Thule* of these unfortunate sufferers—is safely reached.

I am much indebted to my colleagues Dr. A. Hodgkinson and Dr. N. C. Haring, and to Dr. H. A. G. Brooke, honorary physician to the Manchester and Salford Hospital for Skin Diseases, for kindly sending me cases suitable for the treatment; and I wish also to express my particular obligation to Mr. A. E. H. Blackburn, of the firm of Mottershead and Co., Manchester, who most courteously rendered me on several occasions generous and valuable help.

Manchester.

Clinical Notes: MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

PREGNANCY AND LABOUR IN ONE HORN OF A BILOBED UTERUS; PLACENTA PRÆVIA.

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A DUTCH woman, aged 25 years, a primipara, was admitted into the Eden Hospital on July 24th, 1901, in labour, giving the history that pains had begun at 4 P.M. on the previous day, the membranes rupturing at the same time. On admission the pains were feeble and the general condition of the patient was good. On examining the abdomen the bulk of the uterine tumour lay to the right of the mid-line, but just above the pubes; it extended more to the left than to the right. The superficial appearance was one of unusually marked lateral obliquity of the uterus. The position of the child could not be mapped out as the uterus was tenser than usual. The foetal heart-sounds were audible. The external os was not dilated and the presentation lay above the brim. Under chloroform the os was dilated with Hegar's dilators and Barnes's bags and a marginal placenta prævia was found on the anterior wall. It may at once be stated that this gave rise to no symptoms at any time. Since the os showed a tendency to close a de Ribes's bag was put in and left for an hour. The pains became feeble and the patient was given 10 grains of sulphate of quinine and in half an hour the pains were strong. The bag was removed and the os was found, admitting three fingers, with the left foot lying just above it. This was brought down and the case was left to nature. The pains, however, died away again. She was given 30 grains of chloral hydrate and 30 grains of bromide of potassium at once and half the quantity of each half an hour later, after which she slept for two hours and awoke with strong pains. An hour later, her pulse being 78 and her temperature 98.8° F., the dilatation was found to be unchanged and the protruding leg was blue and swollen. Accordingly, under chloroform the cervix was digitally dilated and the right foot was brought down. After this by slight traction on the legs during the pains the body was delivered to the umbilicus. The child was sitting astride the cord; this was released and the hands, which were not extended beside the head, were brought down. The head was now gripped by the cervix; forceps were rapidly applied and the head was immediately delivered. The cord was twice round the neck. The placenta followed rapidly and some bleeding occurred, which was checked by massaging the uterus and by a hypodermic injection of 10 minims of ergotin. On examining the uterus with a view to giving a uterine douche it was found that the uterine canal bifurcated in the body of the uterus. The right branch was large and was the one in which the pregnancy had occurred; the left one, though much smaller, readily admitted the finger. Bimanually the uterus was found to be bilobed, the right lobe being of the size of a cricket-ball and the left considerably smaller. The right half of the uterus was douched out. The perineum was torn about an inch; its mucous membrane was sutured with a continuous catgut suture and the skin with silkworm-gut sutures. The child was born asphyxiated and revived with difficulty. The placenta was battledore. The discharge became offensive, though not excessively so, and for this the patient was treated with vaginal douches. Her temperature was as follows: second day, 101°; third day, 101.2°; fourth day, 100°; fifth day, 100°; sixth to eighth days, normal; ninth and tenth days, 104°; eleventh day, 100°; twelfth day, 103°; and subsequently it was normal. On August 13th she was reported to have an offensive discharge, but that removed from the cervix by a swab was sweet. The cervix was split to the fornix on the right side and at this point there was some thickening. The right uterine cornu reached out to the right, extending two inches vertically above the pubes and the inner part of Poupart's ligament. The left cornu lay deeper in the pelvis, was smaller, and was somewhat difficult to feel. The uterus was moveable. On the 18th the thickening beside the cervix on the right side