A report upon deafness, when resulting from diseases of the Eustachian passages : with the modern methods of cure : being a paper read to the Liverpool Medical Association, on the 19th December, 1839 / by Hugh Neill.

Contributors

Neill, Hugh. Royal College of Physicians of Edinburgh

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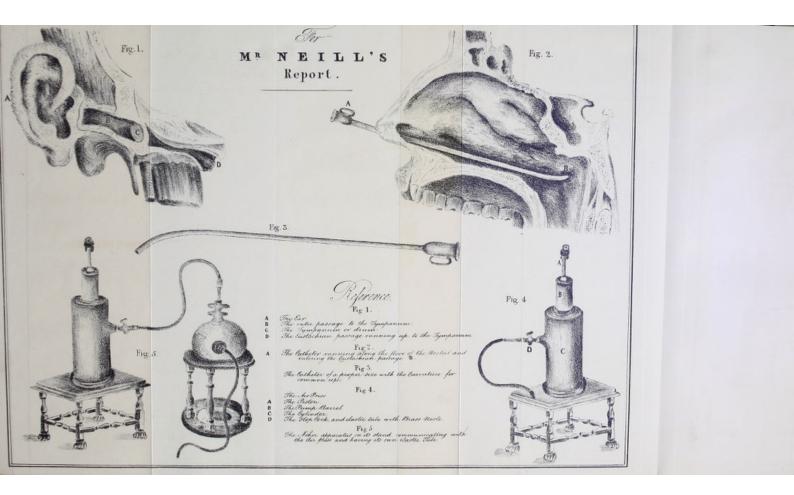
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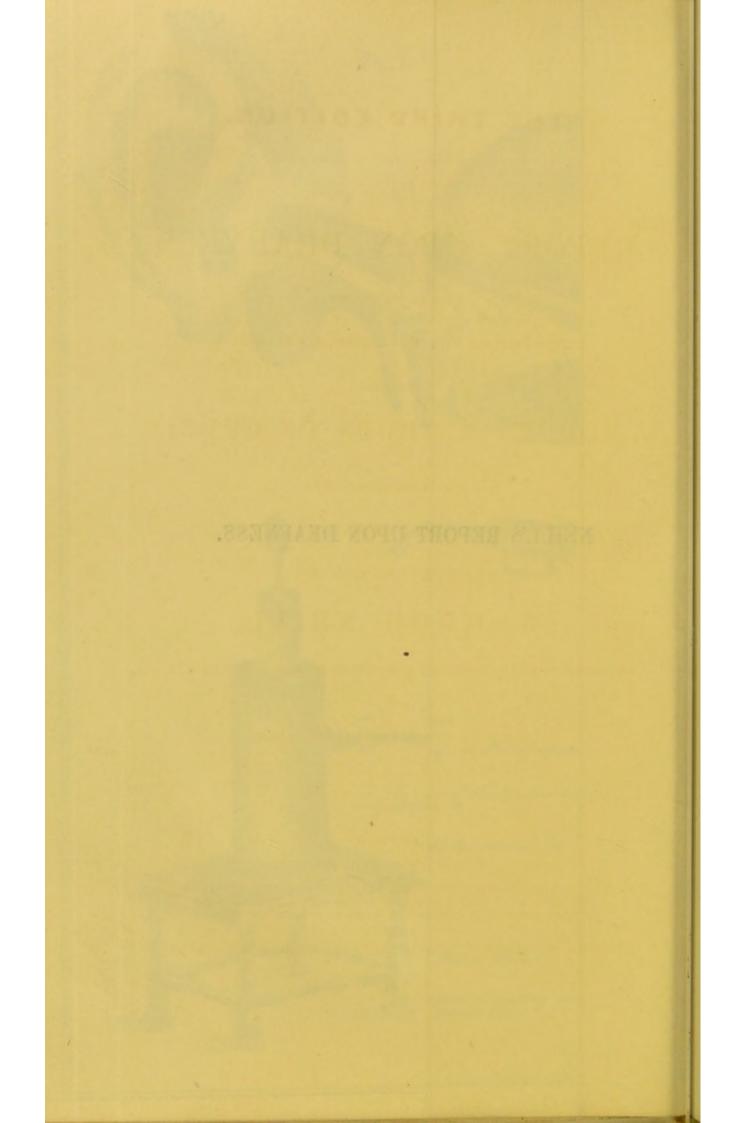


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NEILL'S REPORT UPON DEAFNESS.



THE THIRD EDITION.

REPORT UPON DEAFNESS

A

WHEN RESULTING FROM

DISEASES OF THE EUSTACHIAN PASSAGES;

WITH THE

MODERN METHODS OF CURE:

BEING A PAPER READ TO THE

LIVERPOOL MEDICAL ASSOCIATION,

ON THE 19TH DECEMBER, 1839.

By HUGH NEILL,

SURGEON TO THE INSTITUTION FOR CURING DISEASES OF THE EAR,

AND

SURGEON TO THE OPHTHALMIC INFIRMARY.

LIVERPOOL:

JOSHUA WALMSLEY, CHURCH STREET.

LONDON: LONGMAN & Co.-EDINBURGH: FRASER & CRAWFORD.-DUBLIN: W. CURRY, JUN., & Co.-GLASGOW: D. ROBERTSON.-MANCHESTER: BANCKS & Co.-CHESTER: G. PRITCHARD.-BELFAST: SIMMS & M'INTYRE.

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1840.

THE THIRD EDITION.

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MOST RESPECTFULLY DEDICATED TO THE

PATRONS

OF THE INSTITUTION FOR CURING DISEASES OF THE EAR,

THE RIGHT HON. THE EARL OF DERBY,

THE RIGHT HON. THE EARL OF SEFTON,

THE WORSHIPFUL THE MAYOR OF LIVERPOOL,

THE REV. THE RECTOR BROOKS;

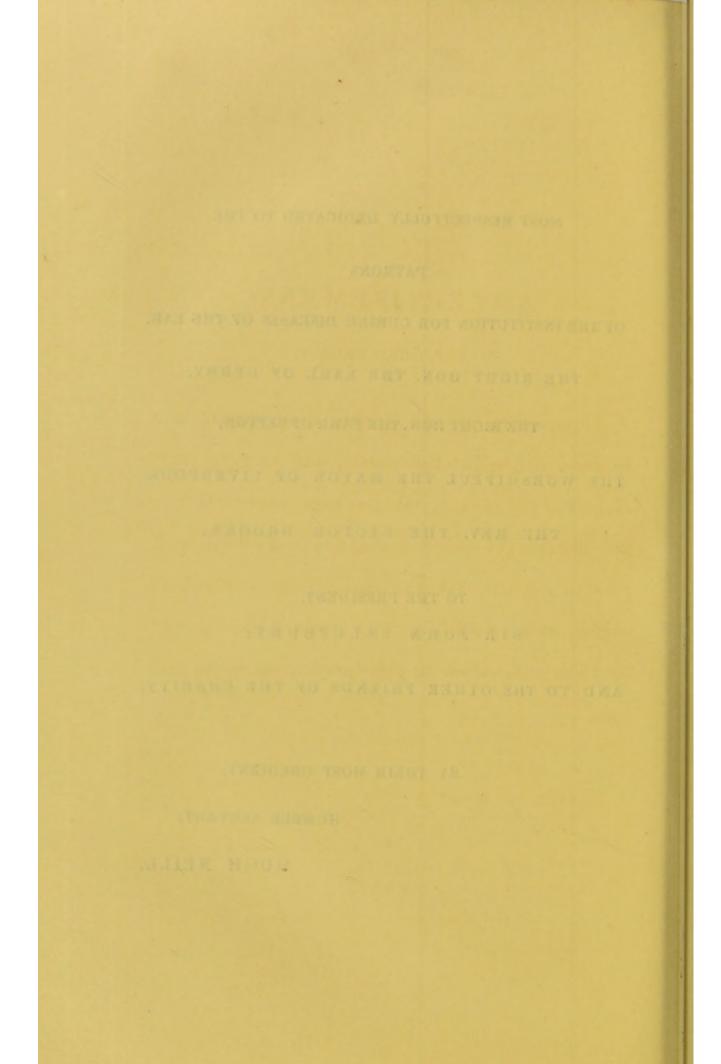
TO THE PRESIDENT, SIR JOHN SALUSBURY;

AND TO THE OTHER FRIENDS OF THE CHARITY,

BY THEIR MOST OBEDIENT,

HUMBLE SERVANT,

HUGH NEILL.

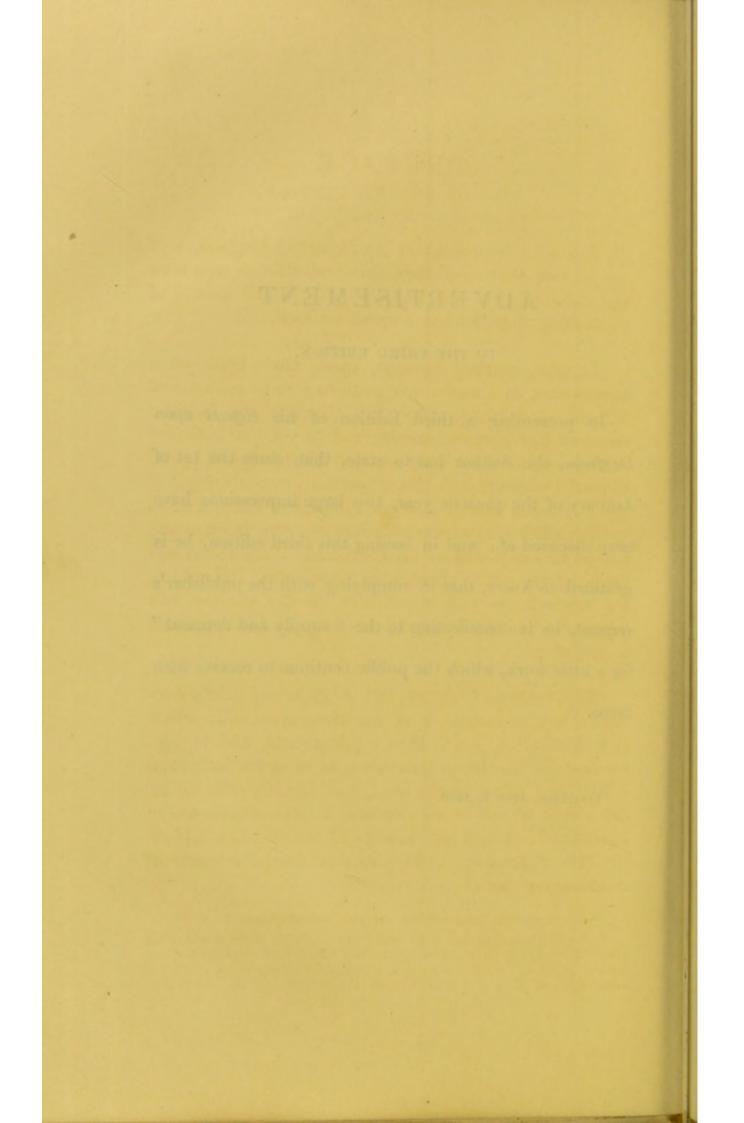


ADVERTISEMENT

TO THE THIRD EDITION.

In presenting a third Edition of his *Report upon Deafness*, the Author has to state, that, since the 1st of January of the present year, two large impressions have been disposed of; and in issuing this third edition, he is gratified to know, that in complying with the publisher's request, he is contributing to the "supply and demand" for a little work, which the public continue to receive with favor.

LIVERPOOL, JULY 1, 1840.



PREFACE

TO THE SECOND EDITION.

A second impression of my Report on Deafness, with the Modern Methods of Cure, being called for so soon after the publication of the first, is a fact which instead of expatiating upon, I leave to speak for itself.

In the interim, however, there have been other occurrences, of a nature too gratifying to be passed over without special comment. My efforts in the forsaken cause of Ear Surgery, humble and as yet but initiatory as they are, have not only received the marked approval of parties whose approbation is peculiarly encouraging, but the Institution alluded to at the 5th page of the preface to the first edition, as having been for some time in existence, and so far established by private means, is now recognised as one of the public charities of Lancashire. Thanks to the appreciation and munificence of the nobility and gentry, and of the influential residents in Liverpool and its environs !

As a matter of history, and as most impartially conveying a true statement of the circumstances in which that Institution,—until then a private one, and too dependent on the limited exertions of a single individual —has been taken by the hand, and formally adopted by the Public as one of its charities, I here subjoin one of the many kind and able reports of the Meeting held on the 24th of January, 1840, published in the columns of a local newspaper:

ESTABLISHMENT OF AN EAR INSTITUTION.

On Friday, a meeting was held at the Clarendon Rooms, for the purpose of establishing as a public charity, the Ear Institution founded by Mr. Hugh Neill, surgeon, whose successful treatment of, and able treatises upon, diseases of the eye and ear have made him extensively known, not only among the profession, but to the public generally. Among those present, we observed the Rev. Jonathan Brooks, senior rector, Dr. Formby, physician to the Liverpool Infirmary, Mr. Bickersteth, surgeon to the Liverpool Infirmary, Rev. Dr. Ralph, Rev. T. Bold, Rev. R. L. Townsend, Capt. Cleather, Robertson Gladstone, Esq., C. S. Parker, Esq., W. P. Hutchinson, Esq., T. Avison, Esq., W. Oxley, Esq., W. Comer, Esq., R. C. Dawson, Esq., J. Huddlestone, Esq., Capt. Stancliff, &c. The Rev. Jonathan Brooks, senior rector, took the chair.

The Rev. CHAIRMAN observed that he had great pleasure in complying with the wishes of those gentlemen who had requested him to take the chair on that occasion, because, from all the information before him, he had every reason to believe that an institution like the one proposed that day would be of very essential benefit to a great number of suffering individuals in the town of Liverpool. He understood that not less than seven hundred and seventy cases of disease connected with the ear had come under the care of Mr. Neill during the last six months, a fact which was of itself a sufficient reason for the establishment of an institution to relieve those who were suffering so great a deprivation.

Dr. FORMEY moved the first resolution, which proposed that an institution should be formed for the cure of diseases of the ear.

Mr. C. S. PARKER seconded the resolution .- Carried unanimously.

Mr. BICKERSTETH moved the second resolution, in doing which he observed that he had witnessed Mr. Neill's mode of treatment, and it appeared to him to be a great improvement. His plan was likely to be of service in cases of deafness produced from disease of the Eustachian tube. The poor would not be able to avail themselves of the advantages of the new method, unless there was a public institution such as that proposed to be formed. He thought that the institution was likely to be of great benefit to the town and neighbourhood.

The Rev. T. BOLD seconded the resolution .- Carried.

Mr. ROBERTSON GLADSTONE moved the third resolution, conferring a vote of thanks on Mr. Neill for the zeal and ability he has exhibited in introducing into the town improvements in aural surgery, and proposing that he should be the surgeon of the institution.

Mr. W. COMER seconded the resolution, as one who was in hope of benefiting from the ability of Mr. Neill; for there was a member of his family who for twenty years had been afflicted with deafness, and who had been under the care of Mr. Curtis without having received the slightest benefit. He believed that the institution would be of very great benefit not only to the poor, but in directing the attention of medical men to the subject of deafness, and to the new mode of operation. Mr. C. referred to the institution of the deaf and dumb, with which he was connected, and expressed a hope that some of the pupils might be benefited by Mr. Neill's mode of treatment.

The resolution having been adopted by the meeting;

Mr. NEILL begged leave to return his thanks to the gentlemen present for the way in which they had been pleased to meet his views, and for the manner in which his name had been mentioned in the resolution. He stated that the study of diseases of the ear had been pursued by a number of the medical profession for selfish purposes, turning it to an advantage to which it ought not to be turned, and making use of quackish means to overcome diseases which required a very different treatment. Most of the diseases connected with the ear arose from the stoppage of the Eustachian tube, and until lately they had not been able to reach that tube. The treatment of diseases connected with that part of the anatomy of the human frame had been almost abandoned by the regular members of the profession, and left completely in the hands of quacks. But now the German and French surgeons, by their handiwork, had enabled the profession to overcome the difficulty of reaching the Eustachian tube, and they were, consequently, in possession of means decidedly sufficient for overcoming most cases of deafness. So simple were the means, that it was wonderful they had not before been discovered ; and it was still more strange that, having been discovered by a nonprofessional man about a hundred years ago, they should have been allowed to be forgotten. It was not likely, however, that they would be forgotten hereafter. The operation was simple, and produced no uneasiness or pain. There was one thing he should like to be understood. From the remarks he had made, it would be seen that there was not amongst the profession in England much knowledge of the diseases of the ear; and he asserted distinctly that there was not a single work in the English language which treated of such diseases in a philosophical manner, or in a way from which surgeons could derive advantage. He wished also to state that his anxiety for the formation of this institution arose not only from the wish of obtaining a school for himself, where he might obtain the information that he could not derive from books, but that the members of the profession might take advantage of it, and make of it a school for themselves. He had, at the Medical Institution, given them a distinct invitation to come and see the process; many had done so; and he now publicly repeated the invitation, and he hoped they would take advantage of it. He would take care to classify the cases, so that medical men might draw their own deductions, and thus be enabled to obtain information which could not be drawn from books.

The Rev. R. L. TOWNSEND moved the fourth resolution, containing a list of officers for the ensuing year.

Mr. AVISON seconded the resolution, which was adopted.

A vote of thanks to the Rev. Chairman was then passed, and the meeting terminated.

Subsequently, (and by authority,) the following notice was inserted in all the Liverpool papers :---

INSTITUTION FOR CURING DISEASES OF THE EAR,

No. 5, Mount Pleasant.

At a Public Meeting, convened at the Clarendon Rooms, on Friday, the 24th January, 1840,

The REY. RECTOR BROOKS in the Chair,

The following Resolutions were passed :--

Moved by RICHARD FORMEY, M.D. and seconded by C. S. PARKER, Esq.,

That owing to recent improvements in "Aural Surgery," it is advisable that an Institution be established for the benefit of the Poor.

Moved by ROBERT BICKERSTETH, Esq. Surgeon, and seconded by the Rev. THOMAS BOLD,

It having appeared that a number of persons have already received substantial relief under the treatment of Mr. Neill, it is deemed desirable that an Institution for the benefit of the Poor be at once formed, and that it be styled the "INSTITUTION FOR CURING THE DISEASES OF THE EAR"; and that the present premises used by Mr. Neill be continued for that purpose.

Moved by ROBERTSON GLADSTONE, Esq. and seconded by W. COMER, Esq.,

That the thanks of this Meeting are due to Mr. Neill for the zeal and ability with which he has introduced into this town the improvements in Aural Surgery, and that he be elected Surgeon to the Institution.

Moved by the Rev. R. L. TOWNSEND, and seconded by THOMAS AVISON, Esq., That the following Noblemen and Gentlemen be Office-Bearers of the Society :----

PATRONS.

THE RT. HON. THE EARL OF DERBY,

THE RT. HON. THE EARL OF SEFTON,

THE RT. HON. LORD FRANCIS EGERTON, M.P.

THE WORSHIPFUL THE MAYOR OF LIVERPOOL,

THE REV. RECTOR BROOKS.

PRESIDENT.

SIR JOHN S. P. SALUSBURY.

D. | R

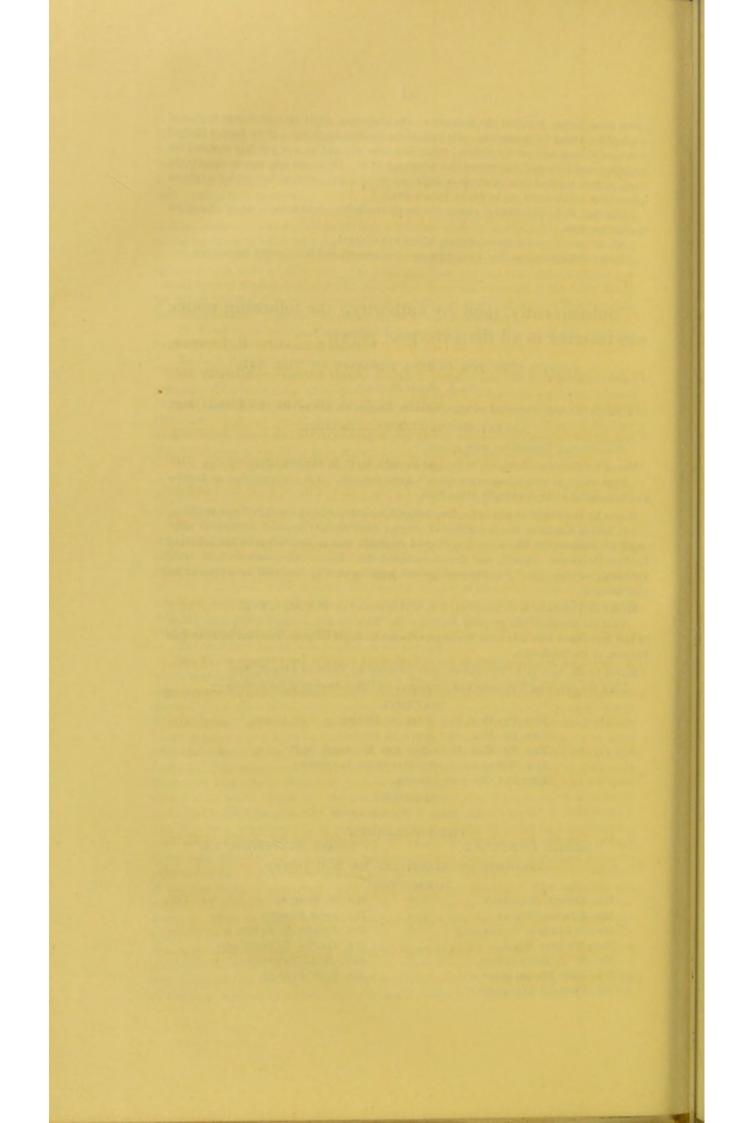
RICHARD FORMBY, M.D.

ROBERT BICKERSTETH, ESQ.

TREASURER AND SECRETARY .-- MR. R. C. DAWSON.

COMMITTEE.

MR. ARNOLD HARRISON, MR. THOMAS CORBIE, MR. ROBERTSON GLADSTONE, REV. THOMAS BOLD, MR. W. P. HUTCHINSON, MR. JOHN HUDDLESTONE, MR. RICHARD HARRISON, MR. W. COMER, MR. JOHN FOSTER, MR. JOSEPH B. YATES, MR. HENRY R. SANDBACH, REV. R. L. TOWNSEND, MR. C. S. PARKER.



PREFACE TO THE FIRST EDITION.

After all, Reaction is the only sound and sure Reformer. When things are at their worst, they mend-though not always of themselves. With regard to the neglectedand, because neglected, abused department of the 'healing art' which forms the subject of the following pages, the force of the adage is true to a proverb. The influence of reaction is fully developing itself: the dawn of better days has at last opened on the reputation and prospects of Ear Surgery. A current has set in against the tide of aural quackery, which will roll it back, or effectually overwhelm it,---if the members of a profession hitherto re-garded as liberal and enlightened, will but prove themselves individually worthy of the 'collective body' whose welfare is identified with that of their 'calling,' and the best interests, here, of the poor and afflicted of their fellow-creatures.

It would be to extend this preface to as great length as the comments to which it is prefixed, were I to review all the causes which have contributed to check, and which have virtually degraded, the study of Diseases of the Ear. But I may cursorily note some of the more important of them. There are those who affect to decry 'system'—or rather (as I apprehend) what they themselves are pleased to understand by that word.

Every ART, however, if deserving of the name, must have its rules. There must be something radically deficient in the education or capacity of the party professing to know any thing of an art, who denies that position. 'System' is a good word, if well used; and a good system must depend on and be a collection of good rules—the 'practice' or *art* consisting in the appropriateness of the application to the nature of general and individual cases.

As yet, with perhaps but two exceptions, the profession is without a system of ear surgery. With the saving clause just instanced, I assert that there is no system of Ear Surgery worthy of the age, or of the wide name of having emanated from any city, state, or province, of European or Transatlantic reputation. In England there is none. I speak to facts.

Within the year which has just closed, an elaborate work has been published, to which justice will doubtless be rendered according to its deserts. But it is not a system—nor does it pretend to the name of being so much as a *treatise* on diseases of the Ear.

On the disadvantages of a want of systematic instruction I need not dwell, and not because the *junior* members of the profession are not those who peculiarly feel it, but because that epithet ('junior') is applicable to rawness and crude knowledge, irrespective of the numerical force which gossip assigns to mere years. When worked well, and their capabilities turned to account, Schools are the soils of System. Hence, without systems and without schools, ear-diseases will continue only empirically known to the bulk of the profession; and with regret be it recorded, the evil ends not here. The best proof of this is what HAS been.

Professional ignorance or neglect, disposed if it did not drive the afflicted to deliver themselves up to the hands of quacks, who, till very recently, have had a monopoly of *mal*-practice, in a forsaken branch of surgery, which few, if any, have had sufficient moral courage or enough of active benevolence to acknowledge or profess. And why have they not? The explanation touches on a sore point—one which should be probed as a curious matter of history. The fact is, the medical profession has shrunk from what they consider equivalent to a loss of caste—in identifying themselves with what their own body has stood aloof from as a forlorn hope of quackery. That is the truth: the fact and inference are equally instructive.

The special study of the surgery of the Ear has been neglected by the profession, who herein have been guilty of a dereliction of duty, and of a sin of omission. The opportunity was therefore too good to be thrown away by the quacks. To them it was doubly inviting. With their usual knowledge of human nature, and its weak points, these 'worthies' have proved themselves as deserving of their claims to pretended knowledge, as, on the contrary, the members of our profession have shown themselves to be creatures of intimidation, and ignorant of the real information of which it was, as it is, their business and duty to be cognizant.

Because, then, the profession have hitherto abandoned this systematic study, and because the knowing quacks have heretofore made 'assurance double sure,' are we to go on tamely in the discreditable career of compromise and concession? Being of a different opinion, it will be seen that I have ventured to say so, and now appeal, on published record, to the good sense of my professional brethren.

An efficient system can only be efficiently supplied in one way. We must have schools—efficient schools—as centres of observation. Those schools, as the surest guarantee to the poor, must be subject to the police of unquestioned inspection.

London has had no school, that I am aware of, although it has had an 'Institution' under a blaze of pretended patronage, and against whose astounding practice (!) regularly gazetted, affiliated, and recommended to the ear of the public by the names and arithmetical charity of members of the nobility and higher ranks in this countryan indignant foreigner exclaims, in terms of manly reproach, the strongest of which is forbearance itself, reduced to a studied mildness of expression. It is therefore not enough to have 'An Institution.' Let there be Schools, both in Town and Country—schools with open doors, where opportunities of demonstrating the best means of cure may be availed of by those who desire, in the appointed way, to turn them to account.

In Liverpool, the deficiency is supplied. An Ear Institution has not only been for some time in existence, —but is fairly established. This cannot be too generally known.

It is *A CHARITY*: and, in behalf of the Charity, and for the sake of those for whom it has been founded, I entreat the assistance of every public man,—and the aid, especially, of the influential conductors of the public press,—to extend its usefulness, by the publicity which it is in their power to give.

Being a charity, we want money—or its equivalent. Those whose means preclude them from contributing a donation or subscription, may at least aid a good cause by exercising their kindly feeling in carrying out, by their good word, the purposes of a much-needed charity and an equally needed School.

The members of the Medical Association of Liverpool will bear testimony to the explicit invitation which accompanied my efforts to draw their attention to an operation, the nicety of which will be admitted by those who have felt embarrassment from their own excusable failure,—I mean the catheterism of the passages through the nose to the ear. I am happy to have this more public opportunity of repeating my invitation, which I now do to every licensed member, without exception, to come and witness my practice as a public servant of a public institution.

In conclusion : as I set out with one adage, I may close my remarks with another.

If it be true that 'when some things are at the worst, they mend,' it should be remembered also that 'extremes' are apt to 'meet.' I have no doubt that for a time the cause will be injured by over-zeal, premature attempts, and by the blunders of parties who attempt to force instruments into the inner ear. As a timely caution I would remark that though the majority of anatomists, as such, may have an anatomical idea of the situation of the parts, yet manual dexterity is the prime essential, to which practice is no doubt conducive and necessary, but yet it is not sufficient to ensure practical safety. Before steel pens came into vogue, it was not every man that could shape his 'goose-quills' to a useable point, though he cut away upon them industriously by the hundred. So it is with the minor operations in Surgery, many of which are brought into undeserved discredit, through the ill-success or awkwardness of essàyists. It is notorious

to every one of us, that there are practitioners who cannot 'let blood,' because of not striking a vein at a first effort, and who are under the necessity of alarming patients and lookers-on, by making one or two amendments upon the original motion. This is as undeniable as that there are dentists (otherwise talented) who invariably break teeth across the level of the gum, owing to some mechanical failure in fixing and working their 'claws' or forceps, according to the absolute principles of the lever and rotator.

In respect of the catheterism of the inner ear, my opinion is that methods may differ.

We have not yet heard of false passages here, but I am satisfied that we shall. For myself I cannot understand how any surgeon can pass the instrument adroitly if he place himself in *front of his patient*. Yet a celebrated German aurist—the father of modern Ear-Surgery—succeeds in that way; a way which I shall never attempt, having found the method which is fully described at page 27 as simple as it is certain, and as free of embarrassment as of injury to the patient.

Of the sequel, as a whole, it is for others to judge. It is printed almost verbally as it was read on the 19th of last month to the Society of the Medical Association of Liverpool.

I append a summary of the official Record of the meeting,-to which I had access on application.

LIVERPOOL MEDICAL INSTITUTION.

December 19th, 1839.

"Mr. NEILL read his paper entitled 'the Diseases of the Eustachian Tubes, and their treatment; particularly with reference to the use of the Catheter and Air-Press.'

"The object of Mr. Neill's paper was to bring under the notice of the Association the *recent* improvements in Aural Surgery, which have been introduced by Delau, Kramer, and others, particularly in the examination and treatment of the diseases of the Eustachian tubes by the catheter and air-press. He gave a general account of the morbid conditions to which the Eustachian tubes are liable, with the diagnostic marks peculiar to each. He next described the apparatus employed by Kramer (the catheter and air-press), which he stated he had used with much advantage; and exhibited its mode of application in several cases.

"A lengthened discussion took place on the merits of the plan of treatment, after which a vote of thanks to Mr. Neill was carried unanimously for his having brought the subject before the Association."

H. N.

January 1, 1840. Oxford Street, Liverpool.

REPORT.

Mr. President, and Gentlemen,

Had I to address an audience different in Views of the author in adtone and special attainments from that for treatment of his subject to which I am expected to prepare a communication this evening, I should have had an easier, because a less solid course to pursue. To enlist the feelings of the benevolent, and to raise those of the merely curious in behalf of my subject, it would have sufficed to have traced a descriptive picture of the pleasures derivable from the sense of Hearing, when the organs on which it is dependent are in a sound, or physiological condition, - and then to have hung it up in what artists term a good light.

apting the the audience This accomplished, I might have followed up the work so begun : and, by way of inviting in behalf of myself in closer relation to my undertaking, as well as to procure the advantages of strong contrast, I had but to fill up, line by line, another pen-and-ink sketch of a contrary state of things; namely, those pourtraying the discomforts, the awkwardness, the vexation,—in a word, the disappointment and misery, together with the actual pain of mind and body, which are entailed on those of our fellow-creatures who are deprived, temporarily, or for a lengthened period, of such a noble, social, and joyous function, as that of Hearing.

A middle position taken up; and why.

To you, gentlemen, it is enough, to advert to the conflicting portraitures by which, in other circumstances, it would have been fair and expedient to have made out a case, and to have expatiated thereon: I assure myself, that all that I need beg of you, is—to carry out the suggestion for yourselves. And here, my self-denial ends. For while looking 'on this picture, and on this,' I cannot forego an opportunity alike seasonable as regards

time and place; and accordingly I take up a third or middle position,-one additionally gratifying, by being a common ground on which patient and practitioner can meet and shake each other by the welcome hand of mutual congratulation.

Gentlemen, who so well aware as you, Immense that there is a class-a very large class-unrelieved of patients afflicted with diseases peculiar to the Ear. the inner Ear?

You are likewise aware that from igno- Such suffer-ers hitherto rance or inacquaintance with the means of Quarks :exploring the passage from the throat to causes in operation. the tympanum, the nature and extent of its maladies have not been duly ascertained; and, perhaps for these reasons, they have hitherto been tampered with, or left unrelieved-quackery, or the policy of 'noninterference,' being the order of the day. I do not exaggerate; for are there not cases Maltreatment in which, from cruel and repeated disappoint- the timidity arising from ments,—after submitting to maltreatment, fessional knowledge: and rash experiments, inadequate to the end quackery. proposed,-patients, out of spirits and out of

number who suffer from affections of

Two-fold

-from : 1st. the timidity

deafness have cure.

sufferersfrom pocket, have made up their minds to 'give it been induced up,' exclaiming that they have discovered to their cost, both ways, that their disease, 'after all,' must be left to its own course!-That there are such cases, no observant practitioner among us can be ignorant. To be able to console such sufferers is something; and how much more, if nothing else, to be enabled to undeceive or assure them, after examination, and thereby to set their fears at rest, that their impaired hearing is or is not incurable,-if it really be so. And Advantages of still more gratifying is it to feel justified in founded re- announcing to the profession and the public, such sufferers that thousands afflicted with a deafness which is supposed to be incurable, are at least within

being able to hold out wellassurances to

> the pale of relief, if not of complete and permanent recovery.

Yes, gentlemen; means to that desirable end are not merely discovered, but have elicited accompanying inventions which admit of a direct and safe application, and which are now brought to a state of improvement, short only of perfection. This is what I confidently assert, and have to urge as the position which I now assume, and which I hope to justify to your approval by the sequel of this address.

Having so far explained myself to this Association, I pass to the next part of my paper, which embraces a compendium of the chief points in the history of the Surgery of the Ear. I conceive that there are several to whom such a synopsis will prove other than uninteresting. But if by any now present, its announcement be received with irksomeness or feelings of impatience, I console myself with the expectation of having the approval of those whom want of leisure alone may have prevented from refreshing their recollections with the literature of this recovered branch of their profession.

Gentlemen, I have only another 'last word' The summa-ry, intention-ally, brief and special. aware that the historical summary immediately following, may, by the hypercritical, be regarded as too brief and imperfect. But, brief and imperfect as it is, it is nevertheless

amply sufficient for the purposes I have in view—which, in number, are two. One has already been named : what the other is, I leave to the ready inference of those who politely favour me with their attention. It is my wish to render the continuation and the winding-up of this communication as interesting as possible ; and therefore, in addition to practical observations, with illustrations, I propose to demonstrate my mode of applying my Apparatus, (which you see on the table,) and to point out where it differs in detail from that observed by KRAMER of Berlin.

Synopsis.

Meanwhile, I have to sketch the History of the Surgery, &c. of the Ear, with reference to the after-part of this paper. More immediately to this end I cut short all the fanciful portion of the traditional literature bearing on the subject; for, to recent times, in the treatment of affections of the Organs of Hearing, the greatest uncertainty has prevailed. Hippocrates does not comment upon them as separate forms of disease : he merely mentions them as accompaniments of fevers and other acute complaints, and then only as 'prognostics' of a favourable or unfavourable termination.

The first who described affections of the The first whose com-Ear as distinct forms of disease, was Celsus. led him to . This celebrated ancient laid down excellent rules for the treatment of violent inflammations of this organ, and in cases of longcontinued deafness he recommended ocular inspection of the auditory passages. The influence of his name, as a sound adviser, must be inferred to have been all-sufficient, -the local use of acrid stimulating drugs eulogised by him, having been the general practice, with few exceptions, in all diseases of the Ear down to the age preceding this, and constituting as it still does the routine experiment with the majority of the practitioners of our own time.

The empirical practice of Galen in diseases Galen's empirical pracof the Ear, even with the additions made to, for more than a to our anatomical knowledge during the thousand years. sixteenth century, preserved its undiminished influence on the minds of the profession, to

mon-sense recommend inspection.

a very recent period, running in the same confined course for above a thousand years.

Interesting discovery by a non-profes-

It is a fact, that we are indebted to a sional patient non-professional person for the first idea of treating deafness through the Eustachian passages. This bright discovery has been. the means not only of imparting a surer diagnosis to the diseases of the Middle Ear, but gives us a facility in overcoming them.

A French Postmaster experiments upon him-self.

Guyot, a post-master at Versailles, performed this important operation upon himself, and succeeded in improving his deafness, by injecting the Eustachian tubes through the mouth. He invented a syringe for the purpose, which he afterwards presented to the Royal Academy of Science at Paris. A recent writer discountenances the belief that Guyot introduced a catheter. It is contended that he merely freed the orifice of the tube with some firm body, and by this procedure relieved his own deafness.

An ingenious surgeon in the English army, An Ear-Catheter first passed, by surgeon Cleland, succeeded beyond all

question in introducing a flexible silver catheter through the nose into the Eustachian passage. Wathen followed this practice, and published his successful cases of cures by injecting fluids. After a long disuse of the catheter, the operation was revived by Itard, who very materially improved it. Since then Saissy, Delau, and lastly Kramer, through controversy and their books, have drawn so much intrinsic attention to the subject, and have pointed out so clearly its advantages that we can never again overlook the operation or permit it to fall into disuse.

By this simple process, one of conside- The 'last rerable danger and little use is now nearly Riolanus, now reduced to obviated. I allude to what used to be styled level. Sir Astley Cooper's operation of puncture of the tympanum-an operation which now is only required when the obstruction of the Eustachian passage is complete, and obliteration has taken place. 'Sir Astley's operation' was first performed by him, in 1800; but it had long previously been recommended by the veteran Riolanus. It is easily effected by having a strong light

directed upon the membrane, which is then to be penetrated at the lower part, with a small perforator,—or, better still, with a more suitable instrument which I now exhibit. The objection to the simple puncture is the readiness with which the wound heals, rendering another operation necessary:—but, after using this instrument, closure cannot take place, as a complete portion is effectually displaced.

Diseases of the Eustachian tubes: Wishing to confine myself chiefly to the ailments of the Middle Ear, I now proceed to those of the Eustachian tubes, which I classify under three heads :—

their classification. First, Inflammation from various causes.

Next, disease dependent on morbid secretions.

And last, affections referable to obstruction,—which may arise from secretions, stricture, adhesion, &c.

Inflammation of the Middle Ear. Inflammation of the membrane of the Middle Ear is described, under different names, by Alard, Itard, Saissy, and Delau. For instance; as 'chronic internal catarrh,' 'internal catarrhal ottitis,' 'deafness from

plugging up of the Eustachian tube,' ' deafness from engorgement of the internal ear,' 'engorgement and obstruction of the cavity of the tympanum,' ' inflammation of the Eustachian tube,' 'chronic catarrh of the internal ear,' 'accumulation of mucous matter in the cavity of the tympanum,' and ' humid catarrhal ottitis.' English aurists have alto- English gether neglected this important morbid condition, or have treated it as a mechanical obstruction scarce worthy of mention. It is, therefore, with the inflammation and with the results of inflammation of this membrane, that I am about to occupy your attention.

We know that the Eustachian tube is a Passage from half bony, half cartilaginous canal, lined with the throat to a continuation of the same membrane which covers the internal surface of the nose and throat, &c. Through this canal, atmospheric -Its use. air is admitted to the cavity of the tympanum where its presence is essential to hearing ;--obstruction to the passage of air through this canal being, physically and physiologically, ' destructive to the sense,' as KRAMER and his reviewers have one and all dwelt upon.

Illustrations.

From personal experience, we all know the effects produced upon a mucous membrane by what is commonly called catarrh, or cold. We know, that from exposure to certain states of the atmosphere, a morbid action is set up in the schneiderian membrane of the nose,—in the fauces,—in the bronchial tubes and larynx,—which is known as ' cold in the head,' or ' hoarseness,' or ' sore throat,' according to the part affected.

Symptoms of Eustachian Catarrh.

The symptoms of catarrh affecting the mucous membranes of the Eustachian tubes are very similar to those which distinguish catarrh of other parts. When the inflammatory action extends to either or both, tumefaction takes place, which, by lessening the capacity of the tube causes an obstruction to the introduction of air. And when mucous accumulation occurs, and in proportion as the obstruction is more or less complete, so shall we find the hearing to be more or less injured. In the first division of cases, the lining membrane being turgid and the tube diminished in capacity, deafness is produced in consequence of deficiency of air on the tympanum; and an uneasy sensation is felt in the back of the throat, sometimes passing to the ear, which is relieved by a discharge of mucus from the tube. In most cases this catarrhal affection soon subsides. In others, slight deafness continues, with an excitable or chronically inflamed state of the membrane, which is constantly secreting an unhealthy fluid. Deafness resulting in this way is relieved when the discharge is established: hence it may be explained, how, in some of Catarrh may sometimes these instances, a slight cold increases the porary restopower of hearing by giving rise to a secretion of a more fluid character, which lessens the tumefied state of the membrane, or floats out the coagulum, or accumulation. In most cases, however, the newly created inflammation increases the ailment, and augments the symptoms by diminishing the calibre of the tube.

I have now to speak of adhesion and stric- of Adhesion, and stricture ture of the Eustachian tube : both are consequences of inflammation or irritation. Either may be complete or partial, and the patient is therefore more or less deaf accor-

C

cause a temfunction.

Forcible reflection by Kramer. ding to the quantity of air admitted to the tympanum. These ailments most frequently arise from sore throat, in scarlatina or small pox,-from common catarrh and cynanche tonsillaris, or venereal sore throat. The observation of Kramer must strike us all: 'considering the narrowness of the Eustachian tube, and the frequency of catarrhal complaints in the nose and throat, it is surprising that the obstruction of the tube is so rare.' Diseases arising from inflammation of the lining membranes of the Eustachian tubes, from morbid secretions, or from secretions or stricture, are generally curable : this I shall prove to you by cases from my note-book. They are curable by a system of operation so easy and simple, as to surprise, whilst it must fully convince.

Cleland follows out the natural passage; and attains his object.

Means of cure had been tried, since the procedure of Guyot, already mentioned. As the introduction of a syringe into the Eustachian tubes, by the mouth, could not readily be accomplished, Archibald Cleland, (in the year 1731,) substituted the introduction of a flexible silver tube through the nose into those

peculiar air-ducts. Petit had previously proposed a similar measure; and Douglas in his lectures on anatomy had demonstrated the possibility of such an operation. But Wathen has the credit of being the first to inject fluids into the Eustachian tube, with a favourable result. Nevertheless, it is to Delau, and (I should say) chiefly to Kramer, that we are indebted for a clear and methodical system, on which we can act with efficacy in curing deafness from these causes.

It is to this instrument, - the AIR-PRESS, * The AIR-PRESS. which I now exhibit, that we are indebted for a means of considerable effect. Till its introduction, which as yet is only partial, diseases of the ear have been less under control than those to which any other part of the frame is subject; the want of method in their treatment has been the inevitable consequence of an imperfect exploration of the affected organ. Happily, now, investigations by men of science are attracting such attention to this branch of medicine, as cannot fail to

> * See Frontispiece, figure 4. c 2

be productive of important benefit to mankind generally; and the examination of disease need no longer be conducted in a superficial manner. By using this instrument, we can, in most cases of internal deafness, arrive at a knowledge of the morbid condition.

Proposed Demonstrations.

I have next to describe the method of performing the catheterism of the Eustachian passages; giving you also a description of the instruments used for the purpose. I will describe the air-press and its action, with my vapour apparatus, and its mode of application ;- show how to avoid accidents in the use of the instruments : adduce cases illustrative of the successful result of the operations, and exhibit a case upon which I have operated successfully; and lastly, upon my patient I will illustrate the process which I now endeavour to describe. Referring you, at greater length, to Kramer's description of his apparatus, I append such explanations as I conceive to be necessary.

Catheterism of the passages. For the examination and dilating of the Eustachian tubes, Cleland has recommended

flexible silver catheters, the construction of Catheterism which is very inconvenient. The catheters passages. used by the Montpelier physicians, as well as by Saissy and Itard, seem to be the best: they are inflexible. In calibre they vary from the size of a crowquill to that of a large goosequill; their extremity is well rounded, and they are curved to the distance of five lines from their further extremity, exactly at an angle of 144° so as to correspond with the lateral situation of the Eustachian passages. They are of the same calibre throughout their length, and funneled at their extremity, to fit the pipe of the injecting apparatus. To the dilated part is attached a ring, on the same level with the beak of the catheter, and by which its situation may be ascertained when it (the beak) is introduced into the nose, and thus out of sight. The injection process I will not delay you with a description of, but pass to the method of introducing the catheter.

Kramer's mode of operating differs from mine. I shall first give his description, and then exhibit my own. Kramer's manipulation

"The patient sits on a stool: the operator standing before him—having previously oiled the catheter—lays hold of it, immediately below the ring, with the thumb and fore-finger, so that the concavity of the instrument is turned downwards.

"The beak of the catheter is then to be introduced into the inferior nasal meatus, and pushed quickly but carefully forwards, gliding over the bottom of the nasal fossa, into the top of the pharynx. This movement must be executed with a delicate, steady hand, partly to spare the patient pain,—partly in order to successfully overcome the impediments to the progress of the instrument, arising from the lateral inclination of the *septum narium*, and the irregularities of the muscular structure,—for avoiding which no regular rule can be laid down. Sneezing need not be feared, as it never occurs during the operation.

"The catheter having been passed into the pharynx, the posterior surface of which the beak must be made to touch; the external extremity of the instrument must be elevated, the beak thus sinks, and, gliding over the posterior round edge of the mouth of the Eustachian tube, touches the posterior surface of the velum palati, which is raised; the catheter is then to be rotated a quarter of an inch on its axis, turning it outwards and upwards, at the same time that, with a certain degree of force, it is conducted into the mouth of the tube."

By noticing my method of introducing the catheter, you will see that I place myself behind my patient, and whilst I introduce the

instrument with facility, I have not the obstructions to contend with, which must arise did I face the patient. The instrument is balanced in my hand, and literally drops into the passage.

Kramer's air-press is an instrument which The German in principle resembles this, but it is screwed to a table, and is worked by a pump-handle, not by a simple piston—as you perceive mine is. Here we have a cylinder of wrought brass, about $4\frac{1}{2}$ inches in diameter, into which is inserted a pump barrel, $2\frac{1}{2}$ inches in diameter: in the piston of the pump barrel, there is a valve for the passage of air. There is a second valve in the bottom of the pump barrel, through which the air is forced into the interior of the cylinder.

In the apparatus shown, you see a pump which forces air into a cylinder, the outlet of which is a little above the centre of the instrument, to which is attached a stopcock, with an elastic tube, having a nozzle of brass, made accurately to fit the dilated part of the silver catheter. The Air-Press: its application to the Middle Ear. If the air-douche is to be used for the investigation of the middle ear, the patient sits close to a table. The air-press having been charged, the operator introduces his catheter into the passage, and then the metallic tip of the tube into the dilated part of the catheter. This accomplished, he must give his best attention to the influx of air, and while turning the stop-cock of the apparatus, he must note the fluctuating sound which the condensed air produces in regurgitating from, as well as when rushing into the ear of the patient.

I cannot now describe to you the different modifications of sound which will thus be heard; suffice it to say, if no obstruction exist, the air, unimpeded, rushes forward, and strikes, very audibly, against the tympanum. After the first shock there is heard a blowing and rustling noise from the continued stream. It appears to issue from the external meatus, and seems to fill the whole ear of the patient. All deviations from these sounds denote organic changes and functional derangement of the structure of the middle ear.

Accidents are reported to have occurred, Rumours of accidents :and inquests have been held upon the bodies hasty 'opi-nions' as to of patients, said to have received their deathblow from the air-douche. Opinions also have been advanced by some members of the profession, and much speculative reasoning has been brought into play, to account for the fact of sudden death occurring in mismanaged cases. Some blow hot, as amusingly as others literally blow cold. In respect of an awkward case in London, an eminent Surgeon, as his conjectural opinion upon the fact of a sudden death under unprecedented circumstances, overcools the twigs of the Great Sympathetic, and thereby causes the heart's action to cease $\lceil ! \rceil$ and thus, from a hasty theory, encourages prejudices and raises fears which the practicability and success of the operation, in the hands of the competent, testify to be as groundless and fanciful as they are irrelevant.

The occurrence which was necessarily brought before the public was shortly as follows. A patient of a doctor in London had Matter-ofbeen operated upon, by the doctor's assistant,

of the case.

on several occasions; and on the morning of his death, had several times had air thrown towards the Eustachian passages. It seems he was left (ALONE!) with the instrument in his nose—and the air-press beside him. He leaned forward, pumped the cylinder full, attached the tube to the catheter, turned the stop-cock,-and was dead in a minute. Has any one I now address ever walked against The real, a gale of wind? Has he not felt a sense of tical view, in suffocation ? Well, this poor fellow, while a fanciful and stooping forward to pump the air into the instrument, had displaced the catheter; its beak became removed from the Eustachian aperture, and, when directed down the windpipe, he turned on a full stream and was instantly suffocated. No time was afforded him to stop the stream: he died as suddenly as though a mass of beef-steak had been forced into the same passage.

Remarks on this "in-quest."

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apprehensions.

> The opinions advanced at the inquest were 'far-fetched.' Are scientific men to be deterred from the use of this apparatus, because an untoward case has been misrepresented so as to reflect apparent discredit upon it?

Surely not! I shall make no pretensions to science—but I will use it, and in the way many of you have witnessed, and well know, without fear, dread, or pain to the patient. If the catheter be properly introduced, there is nothing to fear. This is the necessary guarantee to safety. It is a *sine qua non*.

Select notes from my memorandum-book will illustrate the successful use of the airpress. To economise time, I shall give the points as tersely as possible.

Mr. Nairne, a merchant of this town, CASES. writes as follows :---

" Rumford Place, Liverpool.

"It is now above eighteen years since "I became totally deaf in the right ear, "from exposure to cold. In less than a "year after, I visited Mr. —— "[the most notorious London aurist,] "whose opinion "it was that it could only be removed by "an operation so painful and dangerous, "with a probability of injuring the other "ear, [!] that he would not recommend "anything being done. In consequence of "this opinion, by one presumed to be at "the head of his profession, I have been "for all these years suffering the greatest "inconvenience.

"Some weeks ago, I was induced to "wait upon Mr. Neill," &c.

[This was a case of simple engorgement of the Eustachian tube. By the use of appropriate curative means, a restoration of the injured organ to its healthy functions was effected, in a manner and to an extent in the highest degree gratifying to the patient and to myself—neither pain nor danger occurring to interfere with or alloy the satisfaction arising from a most successful cure.]

Case Second.

Miss D. (aged about 55) has been many years deaf in the right ear. There is a deficiency of wax; but the ailment seems to be engorgement of the Eustachian passage. Cannot hear the ticking of a watch.

Air-press used. Watch now heard at a distance of two inches from the ear. After the third application, the lady awoke in the morning, hearing (with her right ear) a watch placed upon her dressing table, at least five yards distant. [More than three months have elapsed since the last application of the air-press in this case, and this lady's hearing, as in the preceding instance, is restored.]

Miss M^cI. Aged 21. Deaf, since six Case Third. years old.

Oct. 1.—Left ear; watch heard 3 inches distant: Right ear deaf as a post. Air-press used every fourth day.

Oct. 14.—Left ear; watch heard at half an arm's length: Right ear, 4 inches. The Air-press, and *vapour of Acetic Æther*, used every third day.

Oct. 30.—The range of the hearing power of the right ear is now 12 inches; and of the left, 30 inches. Hearing now extremely gratifying: in church, the preacher's voice sounds quite distinct. When but one person speaks, hears very well; but in company, still suffers from the buzzing confusion of sounds.

[This case was one of thickening of the lining membrane, with unhealthy secretions.]

Mrs. L. Aged 40. Has a large family. Case Fourth. Has used an ear-trumpet for eighteen years. Dec. 20.—Has been under my care for three months. Has not used the trumpet for the last six weeks; hearing improving every day. Deafness resulted from sore throat, producing a strictured state of the tubes, —which is now nearly gone. Says she hears "wonderfully well indeed."

Case Fifth.

Mr. S. Aged 38. Deaf for four years. October 5.—Right ear very deaf; cannot hear any minute sound: Left ear; the watch inaudible.

October 21.—Left ear hears the watch at a distance of one inch: Right ear, not at all.

Nov. 20.—Left ear, at 3 inches: Right ear, cannot hear the watch, but hears my voice distinctly.

Dec. 12.—Says his hearing "comes and goes"; is always benefited by the Air-press, but the good effect subsides in a day or two. Says a sense of oppressive fulness is removed on each application.

January 1, 1840.—Is now under constitutional treatment. Great thickening and relaxation of the lining membrane of the Eustachian passages, are the features of this case.*

Mr. M^cC. Aged 20. Lost the hearing ^{case Sixth.} of the left ear, after Scarlatina, at five years of age. Can hear *no* sound : quite deaf.

Used the Air-press four times, between Sep. 3rd and 21st.—Hearing much restored: watch heard, at arm's length; and the voice, very clearly across the room at an ordinary conversational pitch.

This was a case of engorgement. [The patient has just called upon me (three months since last operation), to say that his hearing, and the good effect produced, still continue.]

These memoranda are selected to show the advantages which the Air-press now offers, for overcoming Deafness in such cases as I have alluded to, and they serve to shew the different ailments of the Eustachian tube which will be benefited by the process.

* June 1, 1840.—This is a brilliant case, and speaks volumes for the Air-press. Mr. Sharp's deafness took its departure in the first week of February, and his hearing has been perfect, without relapse, up to the present period.—*Third Edition*.

And now, gentlemen, in conclusion, I would beg to press upon your notice, the propriety of rescuing such an important branch of Surgery from the hands of unprofessional and professional pretenders. It behoves every one to contribute whatever information he may possess, which can in any degree disperse the mist that hangs over this subject. If we will but consider the importance of the Organ of Hearing,--its infinite importance to our comfort and happiness, to our success in public life and our domestic enjoyments — we must admit, that any feasible plan which could be pointed out for the removal of deafness, must contribute largely to benefit mankind; and, that the means now alluded to will benefit many, there can I think scarcely remain a doubt.

SIGHT is a blessing which has been depicted by the Blind Poet as the sweetest gift of our Divine CREATOR.

Were I reduced to one of such alternatives as the deprivation of the sense of Sight or Sound, I would almost agree to

give up any two of the other four, than that of Hearing. Poets, and those who coincide with them in sentiment and mode of thinking, may descant on the pleasing solace that 'Imagination lives,' though the one is lost: but a heavy torpor attends the deprivation of the other. In reality, the world is more truly 'shut out.' The orbless Poet and Musician are within the influence of sweet sounds, and can enjoy the contact of the breeze, or inhale, perceivingly, the genial or most balmy atmosphere. To such, the world, not quite, but nearly, is still their own. To them the fire-side has still its charms.-But not so the DEAF. His world is within himself :--the sight of 'old familiar faces' can only for a time be enjoyed by him; for he is thereby reminded, painfully reminded, that from the associations awakened by the tones and inflexions of their voices, he is an outcast, and a beggar amid abundance. He may see the smile playing upon the countenance, or mark the heaving of the chest, attendant on a hearty cheer, and perceive the eyes of the family circle suffused with the tears of exuberant mirth .--- All this he may see pass-

ing. But he hears not the exhilirating and characteristic laugh of some playmate, with whom, in other days, he had 'cracked his joke' on the friendly understanding of ' give and take,' or exchanged confidence and the expression of articulate sympathy. Truly, the world of such a one is within himself. -If of a sensitive, retiring disposition, he feels himself to be a 'bore'-an infliction on society-his communication with others being difficult and slow .- Should he be of a dark gloomy disposition, selfish feelings grow upon him; — moroseness and misanthropy are nursed into sullen apathy, by the taciturnity and solitude to which he is in a great measure reduced. Conceive the case, of able men prevented from entering upon, or incapacitated to follow out, the noble avocations of the senate, the pulpit, and the bar! With all such, the sickening feeling of hope deferred and blasted, sinks into that indulged melancholy which is too frequently the companion of 'a broken heart.' It then becomes the duty of the educated practitioner to shake off the false feelings that have virtually deterred him from the study and practice of the surgery of the Ear.

Gentlemen, let us put our shoulders to the wheel, in the name of our 'calling,' and use the means of cure which we possess, instead of passively speculating upon them. We have but to act upon this suggestion, and two results will be achieved : we shall first of all recover possession of a fine field of practice,-hitherto, like those islands in the Indian seas, left to the undisturbed support of a nest of wreckers and pirates. And what for years the retreat of the EYE, as an asylum ignorantiæ, was to those pirates of our profession, the quacks, -that of the EAR in like manner, and by like means, will cease to be; with its curative manipulations raised to as worthy an elevation as those of its beautiful sister organ-the Eye.

