SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF OTOLOGY

President: JOSEPHINE COLLIER, F.R.C.S.

May 6th, 1955

Discussion on The Principles of Plastic Surgery of the Sound-Conducting Apparatus, and the Technique of Tympanoplastic Operations

THE opening papers appear on pp. 637 and 653.

MR. FRANCIS MCGUCKIN said he had the advantage of a personal visit to Professor Zöllner and also of a visit to Professor Wullstein, and he hoped that in the near future he might be able to view the work of Professors Pietrantoni and Bocca in Milan. These visits, supplemented also by the work of Thorburn in this country, had over the past few years allowed of the formulation of a fairly complete theoretical approach to the chronic otitic problem. Seven possibilities presented themselves and these might be summarized in a series of slides. It was to be noted, however, that the drawings were purely diagrammatic and were left so intentionally for clarity.

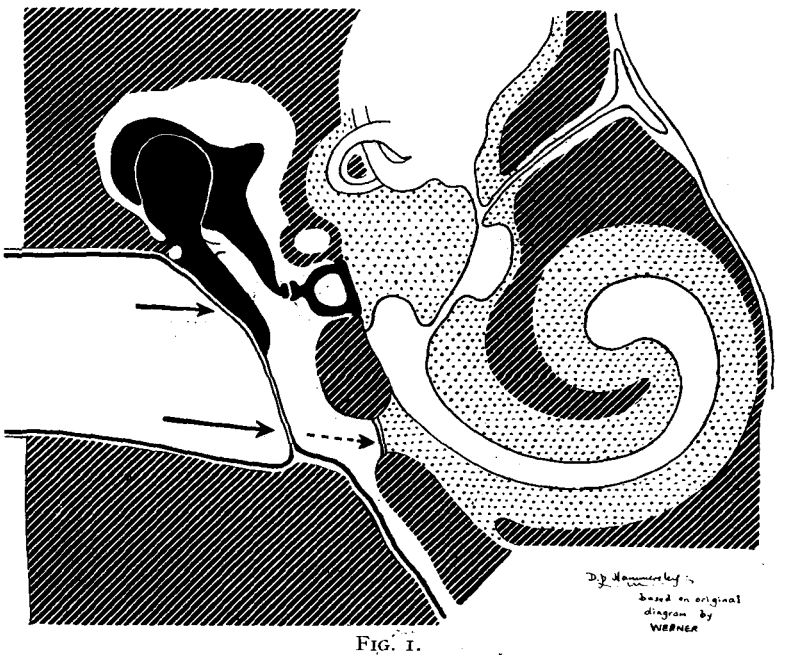


FIG. 1.

Complete restoration of function, e.g. (*a*) repair of a defect; (*b*) suction clearance of an attic cholesteatoma.

Efficiency = Normal leverage plus differential window pressure (sound protection of round window).

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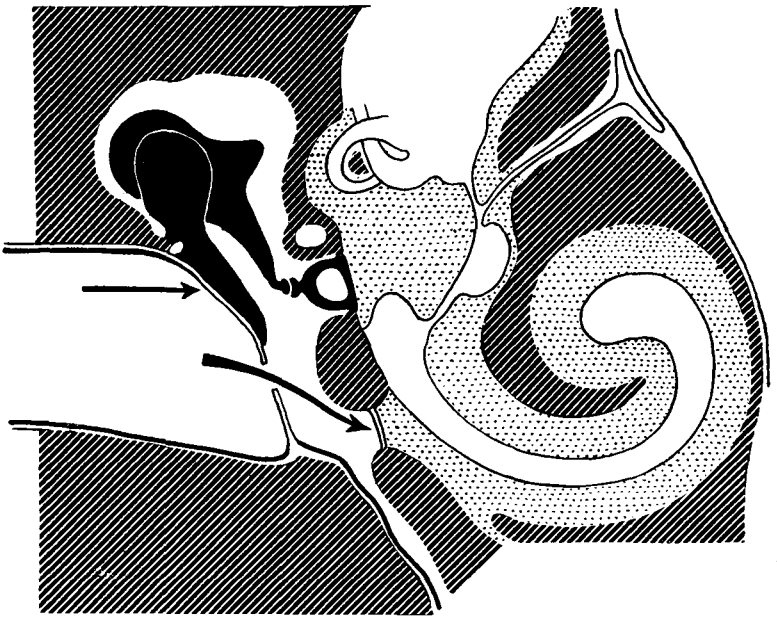


FIG. 2.

A functioning ossicular chain with a gap somewhere in drum or attic.
Efficiency = Normal leverage with reduced or absent differential.

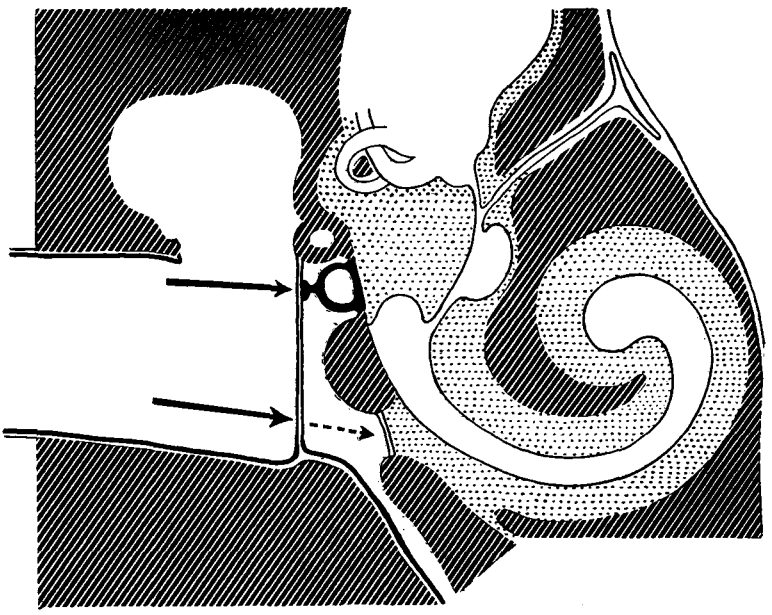


FIG. 3.

Columellar hearing.
Efficiency = Modified leverage plus differential.

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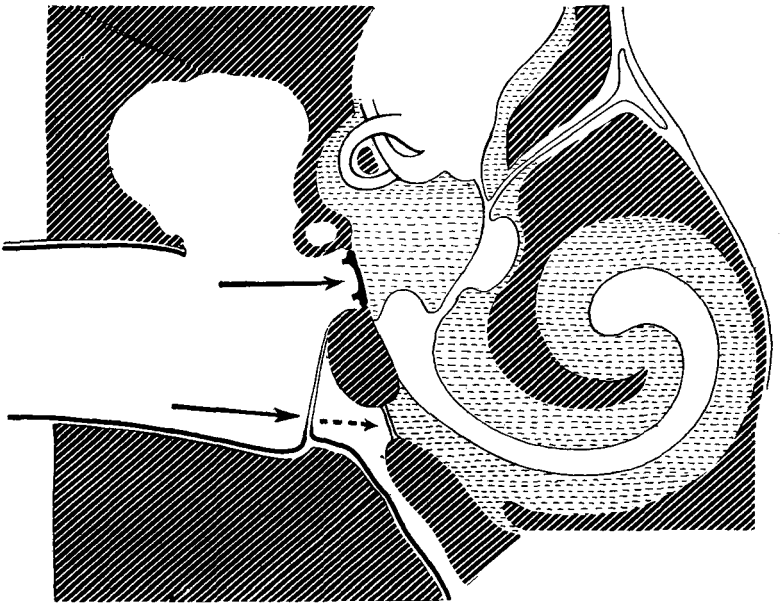


FIG. 4.

Simple baffle over round window ("petite caisse")
Efficiency = Differential minus leverage.

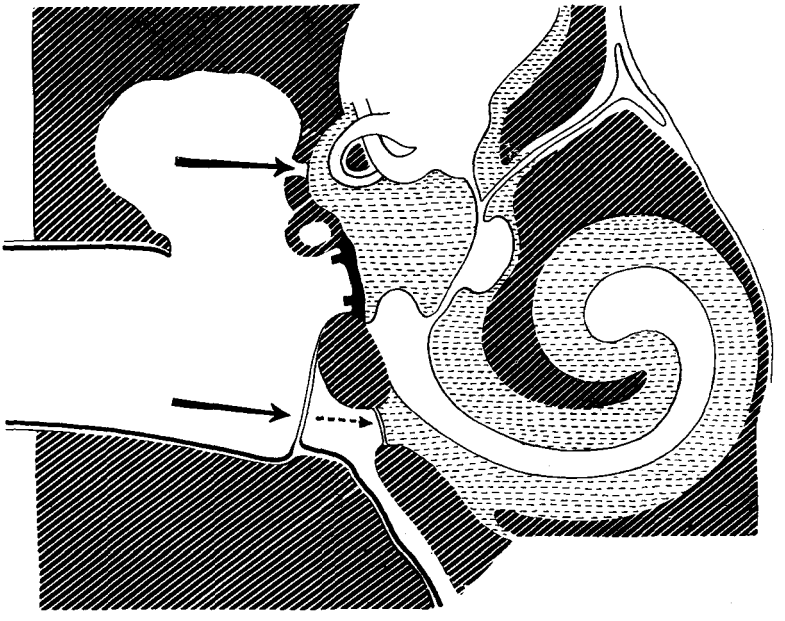


FIG. 5.

Reconstruction of a simple baffle ("tympanoplasty") plus fenestration if necessary.
Efficiency = Differential minus leverage.

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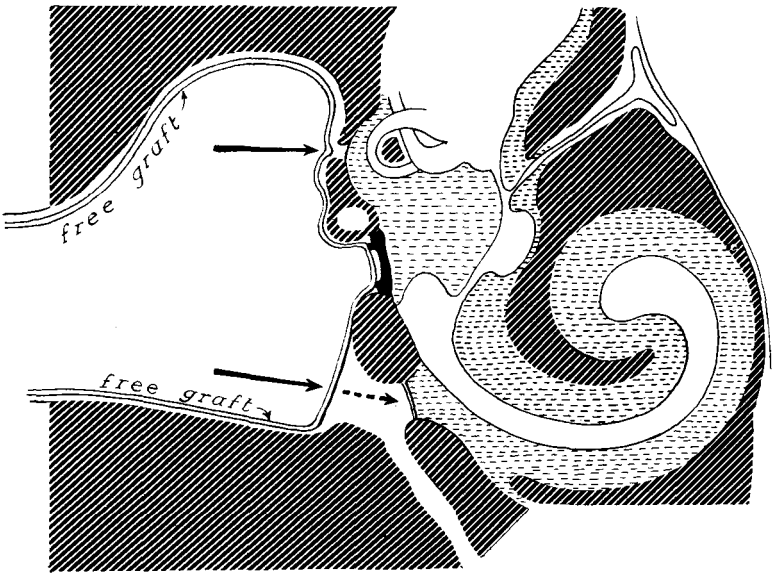


FIG. 6.

Round window baffle with fenestration (where oval window is fixed).
Efficiency = Differential minus leverage.

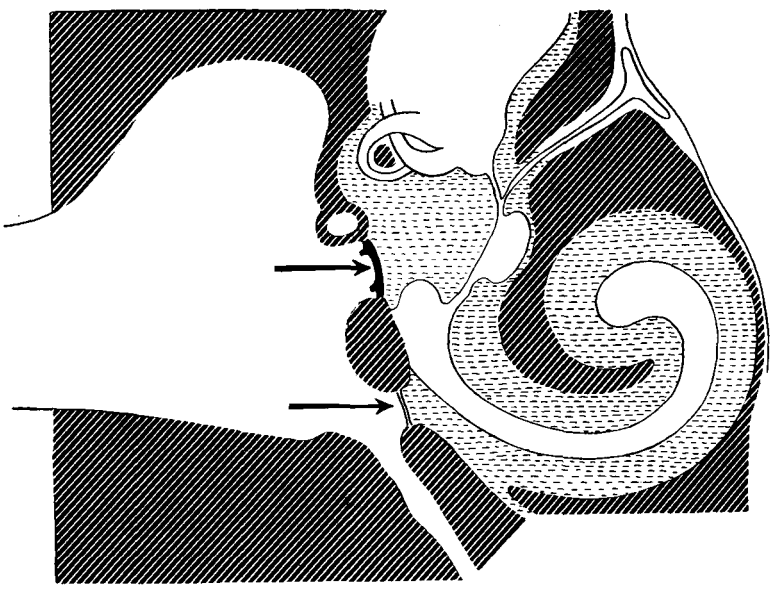


FIG. 7.

Complete radical or labyrinthectomy.
Efficiency = No leverage and no differential or complete loss of function.
The kind of thing to be avoided nowadays.

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PROFESSOR F. C. ORMEROD said that the perfection of fenestration of the labyrinth for otosclerosis represented one revolution in otological technique. Those who were present at Amsterdam two years ago and listened to Professor Zöllner and Professor Wullstein were conscious that another revolution, in the surgery of suppurative disease of the middle ear, was taking place. The functional results of radical surgery of the middle ear had in the past been disappointing but Professor Zöllner had initiated the new technique of plastic surgery of the sound-conducting apparatus which seemed likely to provide a much better functional ear. It consisted in replacing lost portions of the drumhead by free whole thickness skin grafts, in removing diseased portions of the ossicles, in using the stapes as a columella and in reconstituting a pneumatic tympanic cavity into which opens a patent eustachian tube. After total or subtotal destruction of the tympanic membrane a smaller cavity can be made connecting the eustachian tube with the round window. Naturally the preservation of the patency of the eustachian tube was a very important factor in this type of surgery.

MR. T. M. BOYLE asked whether the openers could inform him—as he imagined was the case—the same principles applied in the treatment of common ear conditions in which the drum was quite intact. Did they actually remove all the adhesive processes in the case of an intact drum?

MR. I. B. THORBURN said that he thought they would all agree with the openers that tympanoplasty was a reasonable treatment for the repair of healed defects of the tympanic membrane. In this respect their contributions were a natural corollary of the paper which he had the pleasure of presenting last year at Scarborough. The more revolutionary implication was that otologists should now possibly contemplate replacing radical and modified radical mastoid operations by tympanoplasties. There was a danger of being dazzled by this new technique and of failing to apply in appropriate cases the lessons we had learned in recent years about the conservative surgical management of chronic middle-ear disease. He welcomed the use of increased magnification by a good operating microscope for all detailed work on the tympanum. The principles and technique on which tympanoplasty depended would add a new interest to our efforts to conserve and restore hearing.

MR. I. SIMSON HALL said that he had been introduced to the principles of skin grafting in the middle ear a very long time ago during his association with Dr. J. S. Fraser, who was one of the first surgeons in this country to habitually use the skin graft. For many years he had applied the method of plastic reconstruction developed in the fenestration operation to the surgery of suppuration, and he was entirely in agreement with all that had been said this morning. It was in the development of the free graft in perforations of the drum that the present speakers had made such advances.

One point, which was of great importance, had not been mentioned that morning, was the way in which the presence of a perforation limited the possibilities of employment for many young people. The speakers had emphasized the results in hearing in the repair of drum defects but it seemed that the

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increase in social opportunity which followed repair might be just as important or even more important.

MR. W. O. LODGE asked whether the better hearing of two diseased ears was ever chosen for operation. He thought there were cases where this might be desirable; for example, when in the deafer ear, the drum was intact.

GENERAL NOTES

UNIVERSITY OF LONDON

SEMON LECTURE

This lecture will be delivered on Thursday, November 3rd, at 5 p.m., in the Barnes Hall of the Royal Society of Medicine, 1 Wimpole Street, by the Right Honourable Lord Adrian, F.R.S., on "The Action of the Mammalian Olfactory Organ."

OLD ILLUSTRATION BLOCKS

IT is our custom to destroy blocks after three years. It may be that some authors would like to have their blocks for possible future use. In such case would they write Headley Brothers, Ashford, Kent, as soon as possible, and in any case within three years of their first being used.

THE attention of members is drawn to the *EXCERPTA MEDICA* Section XI which is a most valuable international abstracting service as it gives each month abstracts of all the important papers in Oto-Rhino-Laryngology. The subscription is £4 8s. od. a year and the agents for Great Britain, the Dominions and the Commonwealth (excluding Canada) are E. and S. Livingstone Ltd., 16 and 17 Teviot Place, Edinburgh. We regret that in previous issues the price was incorrectly stated as five dollars or the equivalent.

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