

# The Journal of Laryngology and Otology

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## EDITORIAL

### THE PROBLEM OF OTOSCLEROSIS.

IN a small volume entitled *A Descriptive Catalogue of Preparations illustrative of the Diseases of the Ear in the Museum of Joseph Toynbee, F.R.S.*, the author draws attention to the results derived from his dissections of the ear and expresses the hope that they will be regarded as a solid basis on which ultimately a complete system of aural pathology may be erected. In this book Toynbee mentions "the establishment of the existence, as a disease, of membranous and osseous ankylosis of the stapes to the fenestra ovalis, one of the most common causes of deafness." In his descriptive account of the series of preparations dealing with the ossicles, the note on the first specimen in this section of the catalogue reads as follows:—"From a man, aged 64, who died from asthma: the stapes of each ear is ankylosed by bony union to the circumference of the fenestra ovalis. The ears are in other respects healthy."

Toynbee's Catalogue was published in 1857. Seventy years, therefore, have passed since he observed fixation of the stapes in an otherwise normal middle-ear, thus describing the pathological condition which to-day we recognise as one of the most important changes present in the clinical entity known as otosclerosis. During the years which have since elapsed, a great deal of valuable microscopical research has been carried

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out upon the middle- and inner-ears of patients who have been the victims of otosclerosis and much useful information has been acquired. Many interesting clinical data have also been obtained and grouped so as to construct a fairly definite picture of the disease. Amongst these may be mentioned the hereditary factor, the onset of the disease, as a rule, in early life, the greater incidence in the female sex, Bezold's triad of symptoms, the patent Eustachian tube and often normal drumhead, the diminution in the sensitiveness of the tympanic membrane and the external acoustic meatus and the diminished secretion of wax. In spite of our clinical knowledge and the information which the microscope has supplied, much remains to be done ; the end is by no means in sight.

Dr Albert A. Gray, in the introduction to his classical monograph on Otosclerosis published in 1917, has thus written on the subject: "The difficulties associated with the otosclerosis problem are not so much those of symptomatology and diagnosis, but rather those of its pathogenesis, its pathology and biological significance, and its treatment."

During recent years it has become more and more obvious that a wider conception of what is required must be introduced into the study of the subject, if any real advance is to be made along those lines to which Gray has referred. The need of co-operation and of correlated study with workers in other scientific fields is becoming increasingly evident and, until some concerted action is taken, progress will continue to be uncertain and slow. The great advances that have been made in the collateral sciences, in biochemistry, physiology and pathology, and our increased knowledge of metabolism make it impossible for one individual to attempt an investigation demanding an expert understanding of all these subjects. Co-operation, therefore, appears to be the most reasonable course to adopt.

Early in 1926 the American Otological Society, appreciating the need of a correlated investigation of otosclerosis, appointed a Committee to raise an endowment fund to meet the expenses of the research. The Committee was also given powers to

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utilise the interest of this fund to further the inquiry, the object of which was to determine the best means whereby otosclerosis might be prevented or its cure effected. The work of this Committee has been proceeding for two years and the results of its organised effort will be awaited with great interest.

In his Presidential Address on taking the Chair at the Section of Otology of the Royal Society of Medicine at the opening of the present session, Dr J. S. Fraser, whose valuable work on the histopathology of otosclerosis is so well known, made a timely and wise appeal for a national collective investigation into all the aspects of the disease. His address is published in the present number of the *Journal*. Without a dissentient voice, the members of the Section homologated his proposal and the Council of the Section has appointed a Central Committee to carry out the necessary arrangements for initiating and co-ordinating the research.

It is not our purpose at the present moment to forecast the lines along which the Committee will proceed. Our object is to stimulate the interest of otologists in this country, and wherever the *Journal* is read, in the investigation which will soon be undertaken. The recent discussions in London and Edinburgh in the summer of 1927, published in the *Journal*, furnish ample evidence of the active interest which otosclerosis excites. The Committee may be assured that they commence their work with the support and sympathetic encouragement of all otologists and indeed of the whole profession.

A. LOGAN TURNER.