CLINICAL NOTE

A NOTE ON AUDIOLOGY

" THE science of hearing " is the definition given to the new word " audiology " which has lately been added to the medical dictionaries. Hearing, and for that matter lack of hearing, has been and continues to be a matter of prime interest and importance to the otologist, the physiologist, the psychologist, the physicist, the educationist and the teacher of the deaf, the phoneticist and the speech-therapist, and the worker in social medicine. All these " ists ", and more, are concerned with hearing ; but only too often they have tended to study it in isolated groups, concentrating on one of its many aspects, and the interchange of information between these groups has not always been as free as it might have been. To provide a meeting-ground where all the professional authorities can pool their problems and the possible solutions, it seemed that some new organization was needed ; and so audiology was conceived.

Already in America there are a professor of audiology (Professor Carhart) and consultants in audiology in the Veterans Administration, the chief of whom is Dr. Norton Canfield. Last year, the first International Conference on Audiology was held in Stockholm, under the presidency of Professor Gunnar Holmgren. The transactions of this conference, which have recently been published as a supplement (No. 76) of the *Acta Otolaryngologica*, include a survey of the present status of audiology in the United States, international standards of audiometry, and the relation between otology and physics. A short account of the second conference, which was held in London on July 15th and 16th, is given on p. 763. It is not intended that this conference should, in any way, take over the work of existing professional bodies, but its sponsors hope that it will continue as a means of bringing together, quite informally, all scientists who are interested in hearing, deafness, and speech. The rapid advances made in recent years in electro-acoustics and in the medical and surgical management of deafness can, it is believed, best be consolidated through an organization that already comprises workers from more than fifteen different countries.

New knowledge of electro-acoustics has turned us into a world of listeners ; and whether we listen for enlightenment, for entertainment, or for want of something better to do, good hearing and good hearing conditions are of greater moment to us all, in our everyday life, than ever before. It is estimated that not less than 5 per cent. of the population are hard of hearing and, in addition, there can be but few who do not sometimes wish that the acoustic quality of what they are listening to could be improved. Audiology, then, though it may be a new word, is not a new science, but rather a means of bringing together scientists with a common interest in hearing—a subject that concerns us all. As such, it deserves full support.

https://doi.org/10.1017/S0022215100047162 Published online by Cambridge University Press

REPORT ON THE SECOND INTERNATIONAL CONFERENCE ON AUDIOLOGY, LONDON, JULY 15TH AND 16TH, 1949

THE second Conference on Audiology was held in London on Friday and Saturday, July 15th and 16th, under the chairmanship of Professor Gunnar Holmgren. The meetings took place in the morning and in the afternoon, and they were attended by about 100 otologists, physicists and a few others who were interested in audiology. To the Royal Society of Medicine and its secretary, Mr. G. R. Edwards, we owe a great debt of gratitude for the generous hospitality extended to us.

This London meeting has been made possible thanks to the preliminary work done by a committee formed by the otologists Cawthorne, Hallpike, and Scott Stevenson. They certainly can look back on the results of their work with the greatest satisfaction. Considerable interest was shown in the many lectures, as most of them were of a very high level. In London it became evident that the initiative taken by Holmgren in Stockholm last year had already given important results.

Friday morning was devoted to discussions concerning the future of the International Committee. After the President of the Otological Section of the Royal Society of Medicine, Scott Stevenson, had welcomed the meeting to the Royal Society of Medicine, the president Holmgren opened the Conference. Then the secretary Eelco Huizinga gave a review of the work of the conference, which was followed by a lecture by Sourdille on " Considérations générales sur l'audiologie ". These subjects provoked a lively discussion, in which the following took part: Tato, Canfield, Huizinga, Sourdille, Crabbe, Groen, Kinney, Hennebert, Arslan, Fowler Jr., Bocca, and Scott Stevenson. In consultation with the Central Committee the secretary made an announcement of a few proposals. These were presented to the Conference by the president and they were passed. These resolutions, some of which are of the greatest importance for the future, are as follows :—

1. We need the financial help and support of some existing International Health Organization (see later report by Canfield).
2. The original International Committee chosen by Holmgren in 1948 is now to be enlarged to include representative members from each country.
3. Each country is to be represented on the International Committee by two members chosen by representative societies within each country. These two members are to select the delegates from their respective countries to attend the International Conference. In addition a man of outstanding special ability will be invited by the Council.
4. The executive committee appointed by Holmgren with authority of the members of the 1948 Conference will henceforth be known as " The Council ". This Council will remain as now constituted with changes as noted below until the next meeting of the Conference, at which time new council members will be considered. The changes are as follows :— Eelco Huizinga to be designated as vice-president and replaced as secretary by Terence Cawthorne, 149 Harley Street, London, W.1.
5. Any necessary action about the time and place of the next Conference to be delegated to the Council.

https://doi.org/10.1017/S0022215100047162 Published online by Cambridge University Press

In the afternoon Fowler Jr., also on behalf of Luscher, delivered a report on " The standardization of audiometry," followed by a lecture by Harvey Fletcher on " Relationship between an audiogram and hearing loss for speech ". After this there was a lively discussion by Kinney, Fowler Sr., Fowler Jr., Huizinga and Fry.

Then there were the reports from the various countries on the situation in the field of audiology and the progress made in recent years. Lennart Holmgren discussed the situation in Sweden, Norton Canfield on his own and also on behalf of Fowler Jr. made a communication on the events in the U.S.A. In connection with this Canfield reported on the correspondence with a few big International Organizations. He announced the news that the World Association had extended an invitation to send one or two observers to the General Assembly which will be held in London, October 11th to 14th, 1949. Cawthorne and Hallpike were appointed observers to this meeting.

Finally there followed reports by Bijtel on Holland, Caliceto on Italy, Hennebert on Belgium, Tato on Argentina, Vetter on Switzerland and Dobrzanski on Poland.

The whole of Saturday was devoted to the important work on audiology carried out in England during recent years. One might say that this has been the greatest experiment ever done in the field of the hard of hearing. It was started in 1943, when the Ministry of Health appealed to the Medical Research Council to advise the Government on the measures that ought to be taken in the fight against the problem of hard of hearing. Three committees were appointed : The Committee on Medical and Surgical Problems of Deafness ; the Committee on the Education of the Deaf ; and the Committee on Electro-Acoustics. These three committees have done a great amount of good work and have published a number of reports. An important report was published in 1947 by the Committee on Electro-Acoustics, " Hearing aids and audiometers ". This was the result of very careful research. The physical part was done by the Post Office Engineering Research Station at Dollis Hill, London, under the management of Dr. Radley ; the clinical research took place at the National Hospital under the guidance of Dr. Hallpike and in Manchester under the guidance of Dr. Ewing. The Post Office could easily be interested, as the research on the intelligibility of the telephone gives rise to the same problems and requires the same apparatus as is wanted for the hearing aid. Moreover, in these laboratories important research had been done during the war on the intelligibility of speech under very loud noises, e.g. in tanks. Inner-ear deafness and noise have the same effect on the latter. Much attention was paid to the requirements of a certain standard type of hearing aid that might be made in mass production, in order to help the majority of the hard of hearing. This hearing aid is now known as the Medresco aid.

The delivery of this apparatus to the hard of hearing started in July, 1948, and a number of centres were founded in England for this purpose. Hearing aids and batteries are supplied completely free of charge.

It is very remarkable, indeed, in how many different ways the question of the hard of hearing had been dealt with in both the Anglo-Saxon countries. In the U.S.A. they have started a small number of very beautifully arranged centres for a certain group of hard of hearing, viz. for the military personnel

https://doi.org/10.1017/S0022215100047162 Published online by Cambridge University Press

and veterans, and gradually some are being opened for civilians. In England the centres have been started as an integral part of the National Health Service, and in association with ear, nose and throat hospitals or the ear, nose and throat departments of general or teaching hospitals. This association with the British radical social measures, of course, has great advantages and also disadvantages. But we can only be extremely grateful for the opportunity to learn from the experiences that England has gained so far.

An excellent survey of all this work was given, and it was a great advantage that this very important subject was approached from various directions : the social, the physical and the medical side by leading authorities in each field. After an introduction by Sir Wilson Jameson and Dr. C. S. Hallpike, the physicists Dr. W. C. Radley and Mr. R. S. Dadson, Dr. T. S. Littler of the Department of Education of the Deaf, Manchester University, Mr. M. Reed of the Ministry of Health, and the otologists Dr. Edith Whetnall and Dr. Scott Stevenson spoke in the morning. The discussion was carried on by Huizinga, Tato, Fowler Jr., Harvey Fletcher, Kinney and Glorig. In the afternoon an excellent report was delivered by Dr. T. E. Cawthorne and Mr. Leslie Wilkins, representing the Medical and Surgical Committee. The volume of work carried out to obtain the material concerning the hard of hearing in England was generally admired. The discussion was carried on by Huizinga, Tato, Lennart Holmgren, Ruedi, Hirsch and Johnston.

In the afternoon instruments, sponsored and developed by the Medical Research Council and the Ministries of Health and Education, were demonstrated in another room. Among others, there were shown Medresco hearing aids, a pure tone audiometer, group pure tone audiometer and group hearing aid. A great deal of attention was paid to the demonstration of these English instruments.

It is also of the greatest importance that the London meeting has given an opportunity for an exchange of thoughts between prominent audiologists of the whole world on a much bigger scale than had been possible in Stockholm. This interchange of ideas also went on after the meeting during a visit to various important institutions in London, and a number of delegates paid a visit to Dr. Radley's Research Station, where important work is still being done on the Medresco aid.

Finally we wish to express our thanks to the Ciba Foundation for its hospitality ; on Saturday afternoon the Council and a number of visitors to the meeting were invited to luncheon in the beautiful Adam building of this Foundation.

EELCO HUIZINGA.

https://doi.org/10.1017/S0022215100047162 Published online by Cambridge University Press