Mr. Musgrave Woodman, speaking in reply to Mr. Mill's question, said that the patients in these cases were suffering from giddiness, and it was for this that the operation was done. Their hearing was not very bad, and as far as he could judge it was not affected by the operation. He had not considered the question of hearing condition at all.

**Two Cases of Vertigo treated by Intratympanic Injection of Alcohol.**— W. S. THACKER NEVILLE, F.R.C.S.Ed.

I.-M. J., aged 48. Married.

23.3.38 : Complains of dizziness and tinnitus in the right ear; onset three years ago. The attacks of dizziness, which are usually accompanied by vomiting, occur suddenly and last several hours; during the attacks objects rotate from left to right.

*Examination* with tuning forks shows that the left ear is normal whilst the right ear is deaf to 32, 202 d.v. and  $a_1$ , whilst  $C_4$  and  $C_5$  are shortened and a watch which is heard 2 ft. by the left ear is heard 2 in. by the right ear. Bone conduction— as tested by  $a_1$ —is absent. Corneal sensation good. Cold caloric applied to the right ear showed nystagmus to the left. Romberg's test showed falling to the right. Galvanic reaction is normal.

The patient was treated with Furstenberg's diet (i.e. a salt-free diet).

As the diet did not cure the patient we decided to destroy the 8th nerve.

10.8.38: At 8.45 a.m. under evipan, preceded by omnopon, scopolamine and atropine the right labyrinth was injected with 3 minims of alcohol via the tympanic membrane and the foramen ovale, using Mr. Wright's special needle, syringe, and speculum.

At 12.25 p.m. vertigo and nystagmus to good (left) ear and rotation of external objects with nausea and vomiting. The nausea, vomiting and nystagmus continued for four days. On the fifth day the patient was able to eat and slight nystagmus to the good ear was noted.

The patient left hospital on the eighth day.

Tuning fork tests on the fourth day showed that the injected (right) ear was deaf to all forks form 32 d.v. to  $C_4$ ; Weber was referred to the left ear.

II.—W. W., aged 55.

June 1938 : Complained of deafness and tinnitus in the left ear; then got attacks of vertigo and vomiting. Patient was seen during one attack and rotatory nystagmus to the left ear was observed.

November 1938 : Examination showed—Right ear : good hearing. Left ear : deaf to all tuning forks from 32 d.v. to  $C_1$ . Bone conduction  $(a_1)$  absent.  $C_4$  and  $C_5$  heard but shortened. Romberg's test shows a sway to the left. Cold caloric test gives a feeble reaction in left ear, and active reaction in right ear.

23.11.38 : Injection of alcohol into left labyrinth via foramen ovale and tympanic membrane. Four hours later nystagmus to the ear and vertigo.

28.11.38 : Discharged with third-degree nystagmus and left ear completely deaf.

Mr. E. H. RICHARDS said that there was one rather important point which had not been mentioned by Mr. Thacker Neville and he had never heard it mentioned by anybody else, namely, the lack of compensation when in the dark which followed this operation. This was present in both the cases shown. He had performed the operation four times, completely curing the vertigo, although, of course, the patients had complete deafness in one ear, but they were not compensated when in the dark; they were unsteady and staggering. In one case it was now eighteen months since the operation, but little improvement had been made in this respect in spite of exercises designed to bring about compensation, and he was rather worried because of the prognosis when the question was asked by patients or their relatives.

After hearing Mr. Wright's recent paper he attempted in one case to inject through the foramen ovale after a radical operation had been performed six years previously, but he could find no entry for the needle. He then attempted to open the external canal and could find nc lumen. Afterwards he opened and injected the posterior canal with complete success.