level of the floor of the meatus to within 4 mm. of the roof. I have found the distance of the facial nerve from the surface to vary very considerably. From the point A the average distance was 16·75 mm., the minimum being 13·25 mm. From the point B the average distance was 18·5 mm., and the minimum 14·75 mm. From the point C the average was 19·4 mm., and the minimum 16·25 mm.

The average distance of the external semicircular canal from B was 18·56 mm., and the minimum 13·75 mm. The average distance from C was 18·5 mm., the minimum being 16·25 mm.

Summary.—1. The facial canal lies altogether in front of the mastoid process, and a drill sent *straight* in from any point on the surface of the latter cannot injure the nerve.

2. Measured from the point B, the facial canal was in 43·3 per cent. of cases more superficial than the external semicircular canal; in the same per centage of cases this was just reversed; and in the remaining 13·4 per cent. these two structures were the same distance from the surface. Thus, the external semicircular canal cannot be taken as a guide to the depth of the facial nerve.

3. The average distance of the facial canal from the point B, is slightly less than that of the external semicircular canal from the same point.

4. In removing the outer wall of the attic, it should be remembered that the external semicircular canal is almost always (91 per cent.) nearer the surface, at the point C, than the facial nerve; however, as it is 1·5 mm. higher than the latter, it is almost out of danger; besides, it has a thicker covering of compact bone in this situation (attic) than the nerve.

ON A CASE OF RETROPHARYNGEAL ABSCESS OF AURICULAR ORIGIN.

By Dr. Urbano Melzi (Milan).

Among the different causes which may give origin to retropharyngeal abscess, one of the least frequent is doubtless recent or chronic suppuration of the middle ear, and, in fact, from the researches made by me in the literature, I have been able to find only twenty-two cases cited, so that I think it is interesting to record the case I observed during last May.

The case is one of a child, two years old, who was put under my charge for suppuration of both ears. The otoscopic examination revealed extensive perforation of the tympanum as much on the

right as on the left, from which a considerable quantity of pus ran. Upon removal of the pus, the posterior wall of the tympanic cavity was seen to be covered with granulations; after a few days of medication, consisting of washing with boric solution and instillation of alcohol with boric acid, the secretion stopped completely on the left side; the secretion of pus on the right, however, persisted, but in less quantity, and after three weeks it ceased completely. A month later the child was taken with severe coryza and bronchitis, followed by pains in the ears, and the suppuration returned on both sides. I resumed the cleansing and the instillations of alcohol with boric acid, and obtained a marked improvement on the right side. After some days the child began to be feverish and refused to take any food, complaining of pain in the throat, and, more particularly, she had troubled and interrupted sleep; she began also to snore; at the same time I observed a slight degree of stiff-neck, and that the submaxillary region was swelling and reddening. The mastoid region never presented any change. The examination of the pharynx and of the nose showed marked congestion of the nasal and pharyngeal mucous membrane. I prescribed gargarismata and insufflations in the nose, and an ice-bag on the neck, but the child felt little relief; the following day I heard from the relations that the child had refused all food, and during the night she had had several attacks of suffocation. On examining the pharynx, I discovered an enormous retropharyngeal abscess, which, on being opened, gave exit to a great quantity of pus; on probing, no ruggedness of the vertebræ was met with, therefore, suspecting that the cause of the abscess was the auricular suppuration, I made a bacteriological examination of the pus of the abscess and of the ear, and I found the same bacteria. After a few days all tumefaction of the pharynx disappeared, and also the tumefaction of the submaxillary region and the stiff-neck gradually disappeared at the same time that the discharge from the ear was stopped. When I saw the girl after three months' time, I found her in perfect health; no disturbances either on the part of the ear nor on that of the nose, and not even on the part of the spinal column, which all the more decided me in thinking that the cause of the retropharyngeal abscess had been the auricular suppuration.