UNIVERSITY OF OTTAWA REVIEW

ings on the side. Thus also can sonorous vibrations be brought in touch with the auditory nerve. Recent physiological researches have shown that the semi-circular canals play an important part in the equilibrium of the person and the co-ordination of the muscles, but they have also their auditory function, and their double purpose is but another proof of the wisdom of the Creator.

The remaining part of the inner ear is the cochlea in which the nerve endings exist in the form of the remarkable rods of Corti — about three thousand in number. To this the sonorous vibrations are carried either directly through the bones of the head or from the vestibule. I have already said that these rods are of different lengths and, therefore, in accordance with the theory of sympathetic vibration — which teaches that any body can vibrate in sympathy with a given note provided that its wave length be the same as that of the given note - one of these rods will vibrate for each simple sound that enters the cochlea. This apparently selective power of the rods of Corti is not against any known principle, for it may easily be shown that if a violin be played in front of the sounding board of a piano, the strings of the latter instrument will vibrate to the notes of the former: that is, if you sound A on the violin that note will also sound on the piano. Hence, for every simple note there is a rod in the organ of Corti whose vibratory period is the same, and every time that note is sounded the corresponding rod will enter into sympathetic vibration.

(To be Continued.)

J. J. FREELAND, M.A., '07.