

INDUSTRIAL NOISE

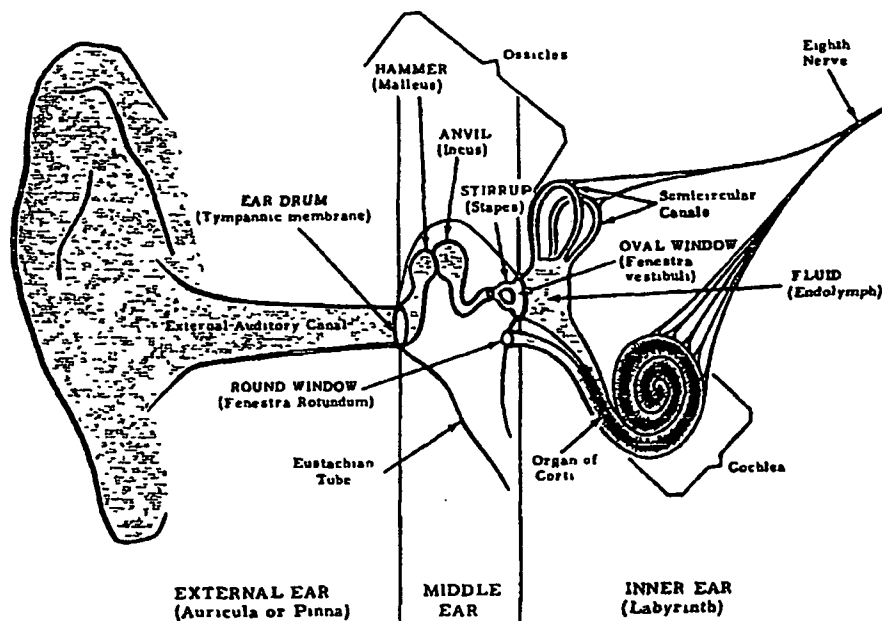


Fig 43-2 Schematic diagram of the anatomy of the ear.

Courtesy American Foundrymen's Society

same loss of function or injury to the human body becomes a disability only if defined as such by law. This is true of the term "occupational disease" also. We may be correct in saying that a loss of function is occupationally induced, but legally that loss of function need not be an occupational disease. What might be classed as an occupational disease or a disability in one state will not necessarily be so classed in another.

Most of the recent problems encountered in establishing equitable compensation laws for noise-induced hearing loss are a result of provisions declaring that occupational disease may be compensable. Hearing loss unquestionably reduces a man's capacity, but if the legal criteria used in many states for establishing disability are applied to noise-induced hearing loss, it is not legally a disability. While there is no date of injury nor, in most cases, is there a loss of wages, there is no question that hearing loss can be occupationally induced.

Since the late 1940's, courts have fre-

quently awarded financial compensation for hearing losses even though no specific date of injury could be shown and the claimant had suffered no wage loss, the standard benchmarks used since the laws were promulgated during the decade between 1910 and 1920. This increased emphasis on social loss caused by hearing impairment has put increased pressure on industry to worry more about conservation of hearing than compensation as a result of its loss.

The Ear and Hearing

Anatomy of the ear

The ear is among the most complex of the sensory organs. Its dynamic range of response is enormous. Sounds so faint they might well have been caused by the Brownian motion of molecules can be heard, and yet man can also hear without distortion sounds that are a million, million times more intense. Man also possesses the ability to distinguish some 300,000 tones of differ-