The acoustician is increasingly finding a role as a form of forensic scientist. This is not only the case in hearing damage cases, but also in noise nuisance cases. It is the latter that are the subject of this paper.

The essential difference between the two forms of noise litigation is that criteria for assessing disability due to noise induced deafness are fairly well established, and although no noise levels are written into any legislation, there are well established numerical exposure limits which if exceeded result in a prima facie case of negligence. No correspondingly neat standards exist for environmental noise.

Court actions relating to environmental noise are concerned with the question of nuisance. This is true both of actions brought by Local Authorities under the powers vested in them by Section 58 of the Control of Pollution Act 1974 (successor to the Noise Abatement Act) and of civil actions in the County Court and High Court. Nuisance is not defined in the Control of Pollution Act, and for statutory proceedings its definition is the same as its common law definition. I shall therefore confine my remarks to the subject of common law noise nuisance cases.

The task facing a judge in a nuisance action concerned with noise is to decide whether the noise complained of would materially interfere with the ordinary physical comforts pertaining among the English people. To assist him in this task he of course hears evidence for the plaintiff and evidence for the defendant. He may also inspect the site of the alleged noise nuisance, but he is not supposed to admit the evidence of his own senses. He has to decide on the basis of what he hears in court whether the noise is such that a reasonable man would be disturbed to a substantial extent. The disturbance, which is technically called damage although it is not necessarily physical damage, may sometimes be possible to evaluate in monetary terms if, for instance, the plaintiff's staff have been unable to work properly, or if he has had to remove his family to a hotel to escape the noise. Indeed for action to be brought in the County Court there has to be claim for damages as well as the usual application for an injunction restraining the defendant from committing some wrongful act or omitting to carry out some necessary act. Injunctions are very powerful instruments, and to be in breach of one is to be in contempt of court, and the plaintiff may start committal proceedings for imprisonment of the defendant. Injunctions are often obtained long before the case is tried by application to judge in chambers, which means that the court consists merely of the judge, counsel and officials, and evidence is all written in the form of sworn affidavits. The case is argued by counsel on the strength of the affidavits, and if the judge finds that the nuisance is so serious that it ought not to be allowed to continue pending trial of the case in open court he will grant an interlocutory injunction. Unless he gives orders for a speedy trial, the case may not come to open court for many months.
Occasionally injunctions are granted when only the plaintiff is represented. These are ex parte injunctions. Overshadowing the whole system is the fact that if, when the case comes to trial, the defendant succeeds in proving that the injunction ought never to have been granted, he can claim damages from the plaintiff for the losses he has sustained as a result. For this reason interlocutory injunctions are not usually granted when they involve substantial financial consequences.

So where does the acoustician come in? It is certainly possible for the judge to try the case without benefit of any technical evidence, but as the profession of acoustics becomes better known, and the decibel less arcane, more noise experts are used. They may or may not influence the outcome of the cases.

A noise expert faced with his first bout in the witness box, whether in court or in a public inquiry (where the procedure mimics that of a court of law) should have idealistic notions about taking an independent stance and presenting the facts and his unbiased opinion based thereon. He will soon be in for a shock, but first let us consider what his evidence will consist of. He will have carried out a noise survey, to a greater or lesser degree of sophistication, and he will have used his results to answer the question "to what extent would a reasonable man be disturbed by this noise?" Unless he is of such great international standing that his opinion on its own will suffice he must look for support to whatever august authorities he can pray in aid. As far as courts are concerned, the most important documents have the Royal or Government imprint. This is why the Wilson Report, written seventeen years ago, is still so frequently produced, because nothing of the standing of a Command Paper has been produced since. Next in line of importance come British Standards, and since a British Standard exists for the purpose of predicting whether or not complaints may be expected as a result of a particular noise, a court is liable to be very interested in the conclusions. If you conclude that complaints may be expected then a judge looking at a man or woman who is complaining about a noise is going to think that they are reasonable in their complaint, which is one of the major questions he has to answer.

Because of the complications introduced by the pre-Leq nature of B.S. 4142, or rather its imprecision when it comes to dealing with widely and rapidly fluctuating noise levels, the complaints assessment approach has often to be widened, but the intention is still the same: to conclude what would be the predicted response of a reasonable man. The term reasonable is commonly used in law, and I will not presume to define it, merely to offer the explanation that a reasonable man is a person (of either sex) in good mental and physical health, who is typical of the majority of citizens, having average living standards and not being especially sensitive or insensitive to noise. He should also be free of antagonism towards the noise maker on account of matters other than the noise. In social survey results he would perhaps give the median response when evaluating noise on an annoyance scale, if that is not to put him in a glass case.

The other major role of the expert is to attempt to convey to the court the meaning of his results in layman's terms, and this may mean giving a lesson on
the decibel scale and its practical implications. In many cases of nocturnal noise it is helpful to refer to the literature on sleep disturbance by noise, and to attempt to show the expected level of sleep disturbance which the noise would evoke in 50% of the population. Of particular importance is to show how typical or otherwise the plaintiff's noise environment is of the type of area in which he lives. The judge will apply different standards to different situations. He may decide that it is reasonable if you live in Sheffield that you should hear industrial noise. There is the famous dictum "what would be a nuisance in Belgrave Square would not necessarily be so in Bermondsey".

Discussions about the law on noise often make great play of the fact that in Statutory nuisance proceedings there is a statutory defence that the best practicable means have been used for preventing or abating the nuisance, and that this defence is not available in common law. This point is not as important as it seems. It is true that in common law proceedings, if a nuisance is found to exist then a nuisance exists and judgement will be given in favour of the plaintiff regardless of the means he may have used to abate it. However, the terms of the judgement will be very much affected by the circumstances. If the defendant is shown to have taken no heed whatever of the plaintiff's representations an injunction may be made against him in the strongest terms. If, on the other hand, it is clear that from the outset the defendant was concerned about the nuisance and made determined and expensive efforts to abate it, the terms of the judgement are likely to be much more lenient. A compromise may be struck between a need for him to carry on the activity concerned and the needs of the plaintiff, by way of, example, a restriction on the hours of working rather than a total ban. The task of the judge is to weigh the balance of advantage. If closing a factory would mean mass unemployment he will not do it.

It is in the witness box that the noise expert on his first case gets his shock. He thought he was an impartial expert with no allegiance to either side save that his client would be paying his fees (although these may come from the legal aid fund). Once his cross-examination begins the situation will change completely. Unless counsel is completely overawed by technicalities, which is rare, he will be surprisingly adept at undermining the expert's case if there is the slightest conflict of logic or woolly thinking. The art of cross-examination is to lead the witness gently along a seemingly harmless path of questions to a dead end where the only possible answer is one which undermines your case. As soon as your case is under attack you find yourself defending it vigorously because with it goes your honour. It is hard to continue to appear impartial in such circumstances.

The moral is "do not give evidence in losing cases". You will either find yourself vigorously supporting a bad position and look ridiculous, or conceding the other side's main points and feel utterly defeated. Experts owe it to the rest not to be seen to disagree on matters of fact. When they disagree on matters of opinion, the judge is going to say in judgement that he values the opinion of one and not the other. He will be influenced by qualifications and direct experience, and by the way the witness conducted himself in cross-examination. He will usually be right.