Financial Times. When he finished reading the paper he tore it into small pieces and started throwing the pieces out of the window. The second man said, "What are you doing that for?" and the first man answered, "I do it to keep down the elephants." Whereupon the second man said, "There aren't any elephants" and the first replied, "Effective, isn't it?"

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Gas gangrene after burns

SIR,—One detail is lacking in the report on the patient treated by Mr D M Davies and his colleagues (17 March, p 718). The primary treatment of the burns includes no mention of antibiotic cover.

Two distinguished bacteriologists have told me in the past that they had never seen gas gangrene in a patient who had been given penicillin at the time of injury or operation. Vascular surgeons have learned this lesson well, and no amputation lacks this essential component of preventive care. We have seen gas gangrene occur from the lack of penicillin, notably in the stump which is plastered and fitted with a primary walking prosthesis in the operating theatre. Concern to prevent the emergence of resistant strains has brought many surgeons to avoid preventive antibiotics in clean surgery—myself among them, until the results of a survey of our aortic aneurysm grafts from 1969 to 1977¹ showed an incidence of eight times the number of infected grafts in those not receiving perioperative cover compared with those who did.

The article in the same issue (p 707) by Mr J P Pollard and his colleagues on antibiotic prophylaxis in hip replacement brings out the important point that the regimen advised reduced the incidence of infection to a level comparable to that attained by the ultra-clean-air system.

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¹ Gordon-Smith, I C, et al, *British Journal of Surgery*, 1978, 65, 834.

Psychiatrists for the deaf?

SIR,—Members of the National Association for Mental Health who are concerned that Dr John Denmark, a consultant psychiatrist specialising in the deaf, is unable to recruit a potential replacement because of the inability of candidates to sign (3 March, p 627) may also be horrified to know that the skill is also rare among teachers of the deaf.

In view of the scarcity of profoundly deaf people who require signing as a major form of communication it is hardly surprising that very few normally hearing people can sign fluently. As with the learning of any language, daily use over a period of several years is needed to acquire sign language. It seems to me unreasonable and unrealistic to expect psychiatric consultants, who are in short supply, or indeed other members of the medical profession who have not had Dr Denmark's opportunity to develop sign language during childhood, to undergo further training in addition to the lengthy initial and in-service courses which they have already followed.

Perhaps a more realistic approach to the problem would be to apply the methods used

in the training of social workers of the deaf. This involves an intensive structured in-service course of learning sign language alongside practical application by communicating daily with deaf adults under the supervision of an experienced senior colleague. I am sure it would be in the interest of the deaf patients for the NHS to approach Dr Denmark with a view to requesting him to postpone retirement for as short a time as necessary so that he could work in a purely supervisory capacity with his successor. The extra cost would be well worth it. I wonder if MIND would approve of such action to prevent the imminent disaster which will occur when Dr Denmark achieves his well-earned retirement.

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Emotion and empiricism

SIR,—The statement that "bias can be observed and estimated rather than submerged by randomisation" in your leading article (3 February, p 288) shows a confusion of the nature of errors occurring in experimentation and a misconception of the rationale and function of randomisation.

Bias distorts results always in the same direction. It causes a systematic or fixed error that either overestimates or underestimates. Since "bias is a normal function of the mind,"¹ including the minds of doctors, the most frequent source of errors of bias in clinical treatment evaluation is the investigator. He usually is not aware of it—in fact would probably strongly deny it if challenged—and, if he is aware of it, he might "lean over backwards" to compensate for it and, unconsciously, create a bias that distorts the result in the opposite direction. Errors of bias are mostly not noticeable and cannot be observed and estimated by randomisation or made apparent by any other method. Randomisation distributes biasing errors among the experimental subjects according to chance, and by doing so converts them into random errors. These are variable errors, because some favour or handicap one treatment over the whole while others work in the opposite direction.

Randomisation therefore creates "plus" and "minus" errors whose distribution follows a bell-shaped pattern. Thus it meets the theoretical requirement for applying normal parametric methods for estimating the magnitude of the errors as the standard deviation of the mean and making allowance for them by tests of significance and attaching confidence limits to the results.

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¹ Gold, H, in *Quantitative Methods in Human Pharmacology*, ed D R Lawrence, p 41. London, Pergamon Press, 1959.

Microscopic words

SIR,—Dr S Selwyn is right to point out two errors in the matter of priority dates (24 February, p 559) mentioned in my feature "Words" (3 February, p 311). Robert Hooke's use of "cell" in his *Micrographia* in 1665 was an earlier use of this word in the biological sciences than that of Nehemiah Grew (1672). One might, however, add that Hooke's cells

were of cork and contained nothing but air—no cytoplasm, as subsequently accepted as an essential part of the biological cell. As so often happens in the evolution of a word, transitions of meaning are gradual and shift with advances in knowledge.

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Royal Medical Benevolent Fund

SIR,—On 13 March in the course of an appeal for reinstatement before the General Medical Council, Dr Brian Sandford-Hill is reported as having stated that the Medical Benevolent Society was paying £6000 per annum in fees for his four children who are at public schools. The proceedings of the hearing have been widely reported in the medical press and local newspapers in Wales and the report has been generally taken to refer to the Royal Medical Benevolent Fund. We should be grateful for the opportunity to state in your correspondence columns that the Royal Medical Benevolent Fund is not the charity to which the report refers.

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The World Medical Association

SIR,—In your issue of 24 March, p 835, under the heading "BMA's finances: recommended economies" it is suggested that the BMA should withdraw from the World Medical Association to save money. On page 833 of the same issue, *Scrutator* tells us that a new BMA medical ethics handbook is shortly to be issued. Its contents have not yet been revealed; but I understand that, among other items, it is likely to contain documents of the World Medical Association on the following subjects: the Geneva Convention, the International Code of Medical Ethics, the statement on abortion, the code on human experimentation, and the declaration on the interrogation of prisoners (a very topical matter).

In the past the WMA has been considerably influenced by British participants. At the 32nd Assembly in Manila in November 1978 three British resolutions were carried nem con; one called for slower adoption of SI units for measurement of blood pressure, another condemned the use of psychiatry as a means of controlling dissidents, and a third deplored the action of any régime against doctors simply because of the political beliefs of their patients.

It seems to me highly undesirable that we should consider withdrawing from the world body just when it is beginning to express a truly international consensus on a wide range of important medical and ethical issues.

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"Canvassing will disqualify"

SIR,—The phrase "Canvassing will disqualify" appears in certain advertisements for vacant consultant posts and is open to wide misinterpretation.

Over the last 18 months, I have known of