has its origins in the complex racial and political problems of the contemporary American scene. The "in" part of teach-in is derived from the civil rights movement and goes back to the American sit-in strikes of the 'thirties. A teach-in is a cooperative enterprise of teachers and taught and of students of different disciplines. All those at a teach-in are not only free to participate but the very success of a teach-in depends on audience participation. The teach-in movement was conceived as a protest at the American Government's position. This feeling of protest, not against the Government but against the traditional type of dogmatic address or lecture, together with the desire to have a meeting in which doctors of all categories, members of the ancillary medical professions, scientists, and others could freely participate, led a group of general practitioners to suggest an experimental series of medical teach-ins as part of the postgraduate educational programme in Norfolk. We are in the middle of this experimental series. A teach-in is a form of group discussion; but the term would seem to describe something more, and certainly from its origin this is so.

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A. BATTY SHAW.

REFERENCE

- ¹ *Listener*, 1965, 74, 1898.

SIR,—I should like to point out, with respect, that the contrast between the indignation of Sir Arthur Porritt and the equally dedicated assessment of Dr. Brian Livesley (26 March, p. 798) could not exemplify better the problem that today besets the hospital service. In short, politicians and the public must appreciate that for too many years there has been in the medical profession a schism between the management and the workers: between one generation and another. The problem resolves further into the recognition that, though there must be undergraduate teaching hospitals, equanimity in the Health Service will only be attained by removing the distinction at postgraduate level.

The public has been badly served by concentration of the most able clinicians in one closed community, in which same atmosphere a chosen few of each succession of new doctors are given opportunities that the less fortunate can only dream of. Even if the process of selection were faultless (and it is not) it is not justifiable to neglect the training of those who may need even more guidance. In effect there is too little respect for the patient's point of view.

The undergraduate teaching hospital remains the best institution for the concentration of those engaged in research, but as far as routine patient-care is concerned decentralization of the better clinicians is long overdue. I think we should look forward to the time when the professor will teach in the peripheral hospital. Even more pressing is the need for those who sit on the central committees to take a proper look at the peripheral hospitals, wherein the majority of the sick people of this country are cared for.—I am, etc.,

Manchester 20.

E. N. WARDLE.

Causes of Illegitimacy

SIR,—Dr. A. White Franklin's article on illegitimacy (26 March, p. 789) draws attention to a most important factor brought to light by the work of Leontine Young—namely, a girl's compulsive wish to be pregnant, but not necessarily to take on the responsibilities of motherhood.

This is not entirely irrelevant to the problems of induced abortion, which has received so much publicity recently. Gynaecologists are well aware that many pregnant adolescent girls are brought by their parents seeking abortion, even though the young girl may appear indifferent or actually prefers to continue with the pregnancy. The girl may not want the baby, but termination of the pregnancy, apart from its physical dangers, can cause psychological trauma to an adolescent already in need of guidance or psychiatric treatment because of parental tensions. The request for termination by the parents may have to be refused in such cases, even if the girl is under 16.

Dr. Franklin says that it is unlikely that these illegitimate births would have been avoided by sex education, contraceptive teaching, or the legalization of abortion. He illustrates the change in society's outlook by citing three novels which explore the problems of sex. Is it too much to hope that novelists, women's magazines, and the authors of television plays will take up this theme in such a way that adolescent girls can recognize this ambivalent attitude to pregnancy and avoid its consequences?—I am, etc.,

London W.1.

HUMPHREY ARTHURE.

Epidermoid Cholesteatoma

SIR,—We read with great interest your leading article on this recurrent problem of the pathology of chronic otitis media (12 March, p. 629). The so-called cholesteatoma of the ear has been the subject of much argument and discussion as an important and irreversible complication of chronic otitis media, often requiring surgical intervention.

In considering the histogenesis of epidermoid cholesteatoma it cannot be emphasized too strongly that the epidermoid cholesteatoma of the ear is a non-neoplastic epithelial structure produced by a hyperkeratotic stratified squamous epithelium.¹⁻³ It is the origin of the "ectopic" squamous epithelium that has been treated as something of a mystery. Various suggestions have been put forward to explain how squamous epithelium can be present in the middle ear cleft. They are (a) congenital origin, (b) epithelial immigration, (c) implantation, and (d) metaplasia. The congenital theory has been revived recently.⁴

It has been claimed by clinical observers that cholesteatoma formation is due to the activation of embryonic cell nests. In common with Rüedi,⁶ we have been unable to identify such "cell nests" in nearly 500 temporal bones sectioned serially.

The immigration theory, advanced by Habermann,⁷ postulated that cholesteatomas were produced by the ingrowth of keratinizing epidermis from the external auditory meatus into the tympanic cavity through a perforation in the tympanic membrane. The

theory has been challenged by the finding of cholesteatoma in patients with apparently intact drumheads. In view of the clinical difficulty of assessing the integrity of the tympanic membrane this argument is obviously suspect (even traumatic rupture of the tympanic membrane can heal without a trace).

Using guinea-pigs, we have been able to reproduce epidermoid cholesteatoma by intra-aural infection and to demonstrate the migration of epithelium from the tympanic membrane and external auditory meatus.⁸⁻⁹ Rüedi¹⁰ produced a cholesteatoma in the middle ear of a guinea-pig by application of an irritant to the inner surface of the tympanic membrane. He demonstrated the migration of basal cells into the middle ear from the intact tympanic membrane. Fernandez and Lindsay,¹¹ also working with guinea-pigs, concluded that epithelium from the external auditory meatus or from the tympanic membrane itself can migrate through marginal or central perforation and that basal cells of the epithelium of an intact tympanic membrane are capable of migrating inwards if the membrana propria and/or corium are damaged. So-called congenital or primary cholesteatomas may develop in this way.

An apparently intact tympanic membrane is not therefore an entirely reliable basis for argument.

The disease index of our department lists 1,157 microscopically confirmed cases of epidermoid cholesteatoma complicating chronic otitis media during the period from 1948 to 1964. With the exception of a single patient³ there was no suggestion of congenital origin in the patients of this comparatively large series. It would appear, therefore, that in the vast majority of cases aural cholesteatoma is the result of ingrowth of epithelium into the middle ear.^{1-3 11 12} The role of squamous metaplasia, for which experimental evidence is lacking, merits further study in view of its importance in the lower respiratory tract but congenital cholesteatoma of the ear is an extremely rare condition.¹²⁻¹⁴—We are, etc.

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Diabetogenic Action of Frusemide

SIR.—In your article, "Today's Drugs: Frusemide"¹ (26 December 1964, p. 1640), you state concerning the side-effects of frusemide: "There have so far been no reports of diabetogenic activity, but this uncommon effect of benzothiadiazines was not