Home Guard while cycling home, and the anxieties of his journey to the United States with Florey anxiety for the safety of the cultures they took with hem when temperatures on the southern flying-boat

ute were well above the optimum for *Penicillium tatum*—are episodes of the kind which enliven this rrative.

The specialized work of each investigator, chemist, acteriologist, cytologist, and even X-ray crystalgrapher is put into terms more or less compreliensible by the average reader, as are the problems of large-scale manufacture. There is a great deal in this book about the production of penicillin, perhaps because the aim is to trace the story of its development, especially during the War, when production was the urgent need, both for the original laboratory and clinical trials, and later for the treatment of battle casualties. There is less about its clinical uses, although the chief of them are mentioned in one place or another. So thoroughly has the author culled his sources of information that even those who know a good deal about this subject are likely to find something new to them in what he has written. His story is a little over-dramatized-centrifuges spin "dizzily", diseases are "dread", and patients are "rescued from the grave"—but it is perhaps a little difficult to ration one's superlatives in writing of such an achievement.

Posterity will probably rank the discovery of penicillin as the greatest British contribution to medicine since Harvey, and the greatest of all time in view of the circumstances in which it was brought to fruition. Florey had no alternative to calling in the manufacturing resources of the United States if penicillin was to play its part in treating war casualties. The price we have paid is that the processes of its manufacture are now covered by a series of American patents. What might have happened if the work of the Oxford team had been unde taken ten years earlier? Apart from anything , the recognition of penicillin as a chemotherapeu... agent in 1930 would probably have prevented the discovery of the sulphonamides, and so have rendered the world as a whole the poorer. L. P. GARROD

A STUDY OF HUMAN ODDITIES

Some Human Oddities

Studies in the Queer, the Uncanny and the Fanatical. By E. J. Dingwall. Pp. 198+12 plates. (London : Home & Van Thal, Ltd., 1947.) 15s.

IN one sense this book might be considered as an entertaining series of erudite biographical trivia, but in his amusing and lightly written account of such figures as the levitating Saint Joseph of Copertino, D. D. Home, the sorcerer who was such a personage in Victorian social life, and Angel Anna, the priestess of an obscene occult sect, Dr. Dingwall has enshrined a scientific moral. This is, that before denying the existence of such phenomena as he describes, we should sift the evidence and use our reason rather than that prejudice, either of belief or disbelief, which is not confined to the laymen of science; and that-if we accept the evidence-instead of admitting that unaccountable things do happen and leaving it at that, we should use available scientific methods to understand them. For example, whether (if at all) the flights of Saint Joseph occurred through divine or diabolic agency, or whether through some

unknown natural force, it seems probable that there were in his own person psychological and physiological concomitants amenable to modern methods of inquiry.

This is eminently reasonable, and in his use of evidence Dr. Dingwall has given a distinguished example of objectivity. His case studies, moreover, point out many lacunæ in our knowledge in the fields of medical, sociological, psychological and psychic research; but it is a pity that the subjects he has chosen have been so long dead that the application of scientific principles to their cases is no longer possible. Nevertheless, in the appendixes to each chapter, which are crammed with learning, offsetting the easy manner of the narrative, he has frequent recourse to the terminology of science, especially of modern psychopathology. This appears somewhat unsafe. In psychiatric diagnosis isolated symptoms can seldom be relied on, but must be related to the whole context of the individual's life, especially to the intimate circumstances of his infancy. We know, also, that in different cultural settings arise standardized modes of behaviour which in Great Britain we would stigmatize as psychotic or pre-psychotic, but which, in their own milieu, do not impair the ability of the persons concerned satisfactorily to manage their own lives. Therefore, to suggest the possibility of applying psychological techniques to the investigation of seventeenth- or even twentieth-century characters of whose formative early life we are almost totally ignorant, and whose social environment may have been very different from our own, seems misleading. It is true that Dr. Dingwall only suggests this possibility tentatively, but psychology, especially psychoanalysis, has suffered so much from the common distortions which have restored to it the function of wizardry as the modern solution to all mysteries and cure of all ills, that its limits must be widely recognized if its potentialities are to be realized. The same criticism might be levelled against hypotheses in terms of glandular abnormalities. We can know very little of the detailed clinical history of persons who lived before modern methods in medicine were evolved, and to attempt retrospectively to diagnose them is a facile abuse of the science employed.

What then is to be gained from studying these strange people from past centuries? The answer, perhaps, is that they provide some material for comparison with equivalent present-day happenings, occurring in a social framework of which we have direct knowledge, and which can be fully examined and tested. But to start with the unverifiable past, though in some ways stimulating and no doubt absorbing to the investigator, seems methodologically unfruitful.

It is to be regretted that Dr. Dingwall's penetrating mind and lively pen were not directed more towards some modern oddities. The transvestite, for example, is so relatively common a phenomenon, that research in any large city would have brought to light psychological and sociological facts far more revealing, if less entertaining, than those which he has presented. In addition, there are living to-day individuals widely credited with feats which might have made even Home feel jealous.

Nevertheless, Dr. Dingwall has given us a book full of strange and macabre facts of the type which, quite apart from their scientific significance, everyone finds fascinating; and for those who wish to make their own inquiries he has provided a very full bibliography and, above all, a scientific incentive.