

With the exception of this last item, the report of the Inspectors is, on the whole, encouraging.

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*Alcohol: Its Action on the Human Organism.* London: H.M. Stationery Office. 1918. Pp. 144. Price 2s. 6d.

The consumption of alcohol in the United Kingdom, as is well known, has slowly but steadily fallen during the present century. The year 1900 represents the crest of an upward movement and the consumption per head of the population reached in that year—alike as regards beer and spirits and wine—has been declining ever since. The recent regulated limitation of consumption has merely accelerated that decline, and the decrease during the war years 1914–1917, large as it may seem to some, only represents exactly the same numbers of gallons per head as the fall during the years 1901–1913.

The Central Control Board, which has been responsible for the regulations and arrangements under which this accelerated decline has occurred, takes a broad and enlightened view of its functions, and in 1916 appointed an Advisory Committee to consider the physiological action of alcohol and its effects on health and industrial efficiency. The members of this admirably constituted Committee were Drs. Cushny, Dale, Greenwood, McDougall, Mott, Sherrington, and Sullivan, with Lord D'Abernon as Chairman and Sir George Newman as Vice-Chairman. The Committee resolved, as a basis for further research, to prepare a review of the existing state of scientific knowledge, as distinct from surmise, conjecture, or popular belief, and to set forth this review in a serene and unimpassioned temper likely to further the progress of those problems in regard to alcohol which still call for scientific inquiry. The review is embodied in the present little volume which represents the unanimous judgment of the Committee.

The scope of the inquiry made it necessary to omit various problems which are still undecided, as well as to leave aside a number of minor points, such as the different properties of various kinds of alcoholic drinks—a matter which in practice is often found important—as not at present susceptible of scientific examination. In this way various items of possible evidential value, one way or the other, are necessarily omitted; but all the fundamental problems remain, and the evidence in regard to most of these is clear. It is not easy for anyone who has ever examined these questions impartially—to whichever side his own personal inclinations may direct him—to dispute the exact validity of the conclusions here presented in clear and untechnical language which should be intelligible to every educated reader, however ignorant of physiology and medicine. The main conclusions may be easily summarised.

There is no doubt that alcohol is a food in the same sense as sugar, though it is only available for immediate use, not being stored up, and thus may economise the use of the body reserves; but its use as a food is limited by its drug action. This drug action is entirely nervous and cerebral, but the general recognition of the nature of this action has been difficult because of the euphoria and blunting of self-criticism which alcohol produces. In all stages and on all parts of the system,

from first to last, alcohol depresses and suspends function ; it is, therefore, not a stimulant, but a sedative and narcotic drug . It is satisfactory to find this affirmation made by the Committee in the most positive and emphatic manner. It is many years since the sedative and narcotic properties of alcohol were set forth, and many people, accustomed to careful self-observation, cannot fail to have discovered empirically that this is its real effect upon themselves ; but the popular superstition that alcohol is to be regarded as a stimulant still prevails in many even influential quarters with mischievous results. Needless to add, the value of alcohol is not thus diminished, but rather increased, yet it is highly important that we should recognise precisely the conditions for its use. It is useless in enabling us to start work or to continue work of any kind, physical or mental, but it is useful in enabling us to leave off work. In the stress of the highest civilisation that use is as much demanded as in the routine of the most primitive culture—indeed, it may be argued that with the increasing strain and momentum of civilisation the brake becomes even more important than the spur. While it is, obviously, highly important to recognise this action of alcohol, it may be added that in some contingencies alcohol acts beneficially, or, at all events, harmlessly, even when applied on a totally wrong theory of its action ; moreover, even by paralysing the higher and inhibitory nervous centres it sometimes has a pseudo-stimulatory action on lower centres. On muscular action, skilled or unskilled, alcohol never has any beneficial effect ; on the contrary, it tends to impair all muscular acts. It depresses the simple reflexes ; it depresses and accelerates the heart by its action on the inhibitory nerves ; it decreases muscular work as measured by the ergograph ; it lessens athletic efforts ; it diminishes control of muscular movements ; it impairs the precision of eye movements ; it slows down the speed of voluntary movements. These results are illustrated in detail and references given to specimen investigations carried out in various countries, especially Germany. This recognition of the value of German work may doubtless, under present conditions, be counted to the Committee for righteousness ; but we miss any reference to Féré's neat and ingeniously varied experiments during many years, illustrating the results accepted by the Committee, and also showing that incidental sensorial stimulation which the Committee admits but hardly seems to lay enough stress on. On digestion, while in moderate doses there is no effect good or bad, the tendency is to retard, and this tendency is much increased in the case of special alcoholic drinks, especially such as are acid. Gastric movement is not increased, and some forms of gastric contraction are diminished, hence the carminative action of alcohol. On the respiration alcohol in moderate doses has no effect, either in health or disease ; in large doses it produces respiratory paralysis and death. On the heart, in low concentrations, alcohol has no special action ; in high concentration it is harmful ; its apparent beneficial action on persons recovering from syncope is due to its irritating action on mucous membrane, and is comparable to the effect of smelling-salts. On temperature the effect of alcohol, now generally recognised, is to cause loss of heat through flushing the surface with blood, the deep temperature falling ; so that while it is worse than useless when taken before exposure to

cold, it is beneficial after such exposure when the surface is chilled. The effects of alcohol as a drug and a poison are clearly set forth at some length; the part of alcoholic excess in the causation of most forms of insanity is regarded as of secondary importance, rather a symptom than its cause. The Committee accept the direct and indirect evidence indicating that the chronic alcoholism of the parents reacts injuriously on the vitality and development of the offspring; but continuity of action as well as excess of dose is necessary to constitute chronic alcoholism, and the habit-forming tendency of alcohol is relatively slight. Finally, the relation of alcohol to longevity is considered; it is pointed out that the evidence presented by insurance companies and friendly societies as bearing on this matter is highly complicated and difficult to interpret, so that while it would appear that the death-rate is lower and the expectation of life longer in total abstainers, it is so difficult to isolate the issue from disturbing personal and racial factors that this cannot be regarded as a scientifically-established conclusion.

Most of these conclusions are simple and elementary; but they are fundamental propositions in regard to the action of a substance which is economically and socially of the greatest importance since the inhabitants of the British Islands deem it of such value that they spend more on it than on meat and twice as much as on bread. They are, moreover, propositions that are still often ignored or denied in quarters where better knowledge might well be expected. It is, therefore, satisfactory to learn that this authoritative little volume has already attained an extremely large circulation.

HAVELOCK ELLIS.

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*Religion and Realities.* By HENRY MAUDSLEY, M.D. John Bale, Sons & Danielsson, Ltd. Price 3s. 6d. net.

There is a pathetic interest attaching to this book. It is the last product of the author's pen. To some extent such a recollection disarms criticism, or would do so were one inclined to severity or dispraise. Again, the advanced age at which he wrote, and adverse conditions in regard to health, might have been justly adduced in mitigation of sentence for errors, solecisms, lapses of memory, or failing judgment. It is unnecessary to urge such pleas, for here, as in the case of "Organic to Human," there is the same clearness of thought and lucidity of expression. Nor is there any sign of weakening in regard to principle, no temporising, as of one who "feared hell rather than annihilation." For this we may be grateful, though, as no one would have admitted more readily than Dr. Maudsley himself, death-bed "repentances," and the utterances of those in the "dreary decline" of life, may be fairly discounted when they are at variance with principles enunciated by the same persons in their prime, or with the whole tenor of their lives.

As the title implies, this volume is chiefly concerned with the antithesis of reality as opposed to religion, or rather to the misty abstractions in which theological systems have obscured the plain facts of life and of experience. This has come about because "the persons who think—hardly one in many thousands—are rare and exceptional." It is more easy to give free play to the emotions in "rapturous exultation"