

CONTRIBUTED ARTICLES.

ALCOHOL.

BY DR. C. I. STOCKLEY.

PART II.

ALCOHOL gives rise to a sense of well-being with a lack of regard for scruples ; and the consequences of action are apt to be left unconsidered. The subject becomes more reflex and more self-confident. At the same time he exhibits less self-control and the emotional side of his character becomes very pronounced ; for example, the jovial man becomes hilarious, the choleric pugnacious, and the melancholic lachrymose.

People so influenced exhibit an excess of motor energy, but their movements lack dignity. The patient is convinced of the brilliancy of his thoughts and expressions ; he is no longer at a loss for words and is ready to give his dictum on all subjects. This 'brilliancy' is, however, a self-deception and the observant on-looker notes that expressions and words are ill-chosen. Nevertheless these effects have, naturally enough, given rise to the popular conception that alcohol is a valuable cerebral stimulant. Dixon says, that even small quantities tend to lessen the power of clear and consecutive reasoning.

Sir R. Armstrong Jones, M.P., writing in *The Practitioner* of March 1918, says that "alcohol attacks the hierarchy of the tissues, for it has a special affinity for the nervous system ; there is a shedding, by degrees, of the most highly evolved faculties ; there is a loss of prevision, an impairment of the judgment, and a failure in the power of discrimination." . . . "The brain worker, rather than the manual labourer, shows the least resistance to it."

Let us now take the results of physiological experiments, which have been conducted over the last 50 years.

Professor Kraepelin carried out some experiments at Heidenberg and Munich with small doses of alcohol.

"He found that the simple reaction period, by which we mean the time taken in making a mere response, was after a small quantity of alcohol slightly accelerated, that is, there was a shortening in the time taken to respond to a signal. But Kraepelin found that after a few minutes a slowing of mental action took place.

"For instance, several persons were tested in adding figures. No alcohol was given for six days and for half an hour a day figures in columns were added up. The ability to add increased every day. On the seventh day the experiments were continued under the influence of small doses of alcohol. Instead of increasing the capability of adding began to decrease. On the nineteenth day the use of alcohol was stopped and immediately an improvement was shown. On the twenty-sixth day when the alcohol was resumed, a decided decrease in the power of adding figures manifested itself."

Even on the memory it has a distinctly hampering influence. Let me tell you of two other experiments. Dr. Parkes of Netley collected a number of soldiers

of the same age and the same type of constitution living under the same circumstances and eating the same food and divided them into two gangs, an alcoholic gang and a non-alcoholic gang. Certain work was given them to do for which they were paid extra by Dr. Parkes according to the amount of work they accomplished. The men in the gang which was allowed alcohol had beer at their disposal, and when they felt tired, they resorted to its use.

For the first hour or two the alcoholic gang went ahead, but after a time their energy flagged and before the end of the day their rivals (the non-alcoholic gang) had accomplished far more work and received more pay.

When this had gone on for several days the men who were having beer begged to be transferred to the non-alcoholic gang in order that they might earn more money. Dr. Parkes then transposed the gangs, the men being willing, the abstainers being given the beer. The results were the same. The alcoholic gang went ahead at the start, but failed utterly at the end of the day, the non-alcoholic gang accomplishing far more work than the other.

Staff-Surgeon Mernetsch in Sweden picked some soldiers, all good shots, and they were made to shoot at targets; when alcohol had been given the result was 30% fewer hits in *quick fire*, although the men always thought they were shooting faster, whereas actually they shot much more slowly. When slow aiming was allowed the difference went up to 50% in favour of shooting without alcohol having previously been taken.

Admiral Sir J. R. Jellicoe came to the same conclusion after careful and prolonged tests.

III.—DISEASE AND ITS RELATION TO ALCOHOL.

The latest and most authentic statistics show that over 10% of all mortality is due to the abuse of alcohol and fully 20% of all disease is traceable to this cause.

In all countries alcoholic insanity is on the increase, in France it has increased by leaps and bounds and the only comment that the *Lancet* can make, is that.....“We have too big a beam in our own eye to moralise on the state of France.”

The late Sir T. Clouston, in his report in 1903, says that in Scotland the cases of alcoholic insanity have gradually gone up, so that in just over 25 years the number of cases had just doubled itself. No explanation will account for this, but the one that certain classes of our population are drinking to greater excess than they did, and in doing so are, many of them, destroying their sanity.

Alcoholic insanity takes three main forms, (a) Acute alcoholic mania in which the symptoms of drunkenness, instead of merely following the usual forms of quarrelsomeness, develop into furious mania. (b) Delirium tremens which results from repeated debauch. (c) Chronic alcoholic dementia, a condition that comes on as a result of repeated indulgence in spirit-drinking.

Alcoholic patients frequently become epileptic, or it may create a latent epileptic into a raving maniac.

In regard to the propagation of tuberculosis a great French physician, Dr. Brouardel, says : "Alcoholism is in effect the most powerful factor in the propagation of tuberculosis. The most vigorous man, who becomes alcoholic, is without resistance before it."

In sunstroke alcohol is one of the most important of all the predisposing causes and all the works on tropical medicine are very clear on this subject ; and personally I watched some 80 cases of the "effects of heat" last summer in Mesopotamia and I found that only 10 out of the 80 were teetotal and of these many had had malaria or dysentery or other predisposing causes.

In all diseases, one may say, alcoholism makes the prognosis ever so much more unsatisfactory.

The use of alcohol in disease.—I think that most doctors can agree with Dr. R. Hutchison when he says "of recent years I have prescribed alcohol much less freely than I formerly did."

Its use in heart diseases and typhoid fever is being doubted, for a Superintendent of a Fever Hospital says in his Bradshaw Lecture : "Alcohol is not required. . . its employment is distinctly harmful even when given in quantities which would not be considered excessive."

While Sir Jas. Barr, M.D., points out : "Alcohol has a somewhat similar effect on the heart to that produced by the typhoid toxin."

Professor Metchnikoff in 1906 says "that besides its deleterious influence on the nervous system. . . alcohol has a harmful effect on the white blood corpuscles, the agents of natural defence against infective microbes."

Why ! in fighting against alcohol we are fighting against many diseases, and in none more than in the venereal diseases, which are the scourge of every nation. Nothing is more common knowledge in medical practice, than that the man who takes alcohol is likely to contract syphilis.

IV.—ALCOHOL AS A FOOD.

The general pharmaceutical opinion is that so long as the amount of alcohol in the body can be oxidised and destroyed by the tissues it acts as a food. If, however, the amount is exceeded the alcohol exerts its specific action on the nervous system and induces certain poisonous effects.

Its food value in disease is due to its very rapid absorption, and when a tolerance for it is acquired it acts as a protein sparer. But I think with Sir R. Armstrong Jones when he says that he has no sympathy with the daily use of alcohol by healthy persons under ordinary circumstances.

Other opinions are that "it is only lately we have begun to regard alcohol in its true light as a drug and not as a food."

"Alcohol is not a food in the proper acceptance of the word, it is a sedative."

"The truth is that the physiological effects of real food-stuffs on the one hand and alcohol on the other are totally different. Fats, carbohydrates and nitrogenous foods after mastication, at once begin to be digested and assimilated and to fulfil the true function of a "food" by maintaining the natural temperature, pulse rate and tissue repair of the body without any disturbance

on its mental, and physical functions and activities. Alcohol on the other hand pursues a different course. It is absorbed by the stomach unaltered by the digestive processes; circulating in the blood in its original form, it at once interferes with the ordinary activity of the brain and other organs and by its anæsthetic action hampers our mental and physical activities." Sir A. P. Gould, F.R.C.S., even goes as far as to say—"it is a protoplasmic poison, which directly interferes with and makes cell metabolism."

V.—ALCOHOLIC BEVERAGES AND THE NATIONAL HEALTH.

The amount of money spent on alcoholic beverages is tremendous, for on an average, every person above 20 years spends £6-5-8, and the United Kingdom spends nearly 200 million pounds sterling every year. If all this money spent in beverages was invested, the nation would be increasingly prosperous and the general standard of life and efficiency would be raised.

Our national expenditure on alcoholic drinks means more than wasted money, it implies an enormous waste of health.

Finally, as we as a nation are at war, let me give you the experience of some military experts.

General Sir Francis Grenfell in 1896.—"The campaign in Egypt was a teetotal campaign. We drank the Nile and nothing added. . . and in no other part of the world have I seen a force of men so fit and so well as that force which was employed upon the Nile."

The Commander of the 16th Army Corps in Germany, Count von Haeseler :—"The soldier who abstains altogether is the best man. He can accomplish more, can march better and is a better soldier than the man who drinks even moderately. Mentally and physically he is better. Brandy is the worst poison of all. Next to it comes beer. Each limits the capacity and lowers mind, body, and soul. Strong drink tires, and only increases thirst. For soldiers, water, coffee, and above all tea are the best drinks."

The power of endurance of the Boer Army was due a great deal to the total abstinence from spirituous drinks, and Sir Fred. Treves, speaking of our own men, says :—

"It is curious that troops cannot work or march on alcohol. I was, as you know, with the relief column that moved on to Ladysmith, and it was an extremely trying time by reason of the hot weather. In that enormous column of 30,000 the first who dropped out were not the tall men, or the short men, or the big men, or the little men—they were the drinkers, and they dropped out as clearly as if they had been labelled with a big letter on their backs." The testimony of Field-Marshal is very conclusive.

F.M. the late Earl Roberts says :—"Give me a teetotal army and I will lead it anywhere." . . . "There are so many temptations connected with the provision and management of liquor for soldiers that if it were possible I would like to see every man a total abstainer."

F.M. Methuen :—"I appeal to these gallant men who represent our great Empire to act their part as England expects them to do, and throw away the vile curse of drink, as the Russians have done, so that they may make

themselves fit in body and nerve to face a foe that is as courageous as he is brutal in war."

Mr. Lloyd George in February 1915 was very emphatic when he said that "drink is doing us more damage in the war than all the German submarines put together."

"O that men should put an enemy in their mouths to steal away their brains."

References:—(i) Horsley and Sturge, "Alcohol and the Human Body."

(ii) W. E. Dixon, "Manual of Pharmacology."

(iii) Sir A. Clark, "An Enemy of the Race."

(iv) "B. M. J.," Nov. 26th, 1914.

THE LADY DOCTOR.

By HYGEIA.

(From "The Grant Medical College Magazine," March 1918.)

LESS than half a century ago the lady-doctor was a very uncommon feature among the few professions that were thrown open to women. Teaching and Nursing alone practically, were considered suitable for them. At that time the majority of women were confined to their homes. Needlework, cookery, and other branches of domestic economy were all that they were expected to know. Gradually the education of women spread, and more pathways were opened for them. They began to see and judge what was best for themselves. A few ambitious ones took to teaching and nursing. But when the lady-doctor appeared on the scene, she was viewed with great consternation. Because she had to study Anatomy and Physiology, the medical profession was considered unfit for her.

The women of to-day owe much to a small gallant band of ladies who fought so hard and unflinchingly against the prejudices of their times. Their efforts seemed to meet with disappointment on all sides and they had few to sympathise with them. But in spite of all the hardships and defeats they triumphed, and they were free to take a Medical degree side by side with the men. To-day we see how their efforts have been blessed a thousandfold. The lady-doctor is a much needed acquisition to the individual and to the nation. Who would understand the needs, and sympathise with the sufferings of the weaker sex, better than she? When one reads of the deaths and disasters among the poorer classes of women who entrust themselves to the care of midwives, who scarcely know anything of their work, one cannot help but acknowledge that the lady-doctor is a blessing. With her keen insight and inborn sympathy for the suffering, she has found ways and means to better the condition of her sisters.

Now almost every University has thrown open to women its degrees in Medicine, and the women have not been slow in making the most of their opportunities. Within a few years the number of lady-students at the Medical