The British Journal of Inebriety

VOL. XVIII. NO. 2.

OCTOBER, 1920.

ALCOHOL AND ALCOHOLISM IN RELATION TO VENEREAL DISEASE.*

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I HAVE been asked to read a short paper on "Alcohol and Alcoholism in Relation to Venereal Disease." Whatever value there may be in this communication is derived from the quotations which I shall give from authoritative sources.

The influence of alcohol in actively influencing the treatment and prognosis of venereal disease is so generally recognized that a few quotations from some of the authorities will suffice.

Keogh, Melville, Leisham, and Pollock[†] state that "during the early stages of gonorrhœa, alcohol increases the œdema of the mucous membrane, and so facilitates the passage of the gonococcus to the deeper layers; hence its extremely harmful influence on the disease." McDonagh writes: "In the treatment of acute urethritis alcohol must be avoided and milk and water substituted." Harrison says: "The fact that alcohol in some form or other is a popular test of cure sufficiently indicates its position in, or rather out of, the dietary of the patient suffering from acute or subacute gonorrhœa."

Watson,[‡] in referring to the treatment of gonorrhœa, declares: "Alcohol is of course entirely forbidden. The reason why all alcoholic beverages react so harmfully on gonorrhœa is not easily explained, but there is abundant clinical experience to justify

* Paper introductory to a discussion before the Society for the Study of Inebriety on Tuesday, July 13, 1920, and held in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W. 1.

[†] See "Manual of Venereal Diseases," published by Hodder and Stoughton. London: 1907.

[‡] Watson: "Gonorrhœa and its Complications." London: 1914.

their entire prohibition during the whole course of infection." George Luys affirms: "During the course of venereal diseases, especially that of gonorrhœa, the use of alcohol is absolutely contra-indicated, for it undoubtedly produces congestion of the genito-urinary organs, and ought to be prohibited during the treatment of gonorrhœa."

Marshall: * "The progress of syphilis is aggravated by various secondary factors: alcoholism, intercurrent diseases such as tuberculosis, malaria, etc.; mental and bodily overwork, fatigue, starvation, etc. The combination of syphilis and chronic alcoholism is a factor in the causation of arterio-sclerosis, chronic interstitial nephritis, and cirrhosis of the liver."

Keyes, Professor of Genito-Urinary Surgery, New York Polyclinic, and Lecturer Cornell University Medical School, says: "Close observation will show not only that the man who drinks hard is the worst sufferer from tertiary syphilis, but also that he who merely absorbs constantly—faithfully, one might say—two or three drinks a day, is a far more promising candidate for tertiarism than he who drinks nothing at all. More than this: In sensitive subjects I have several times (sufficiently often to convince both the patient and myself that this was no mere coincidence) noted distinct exacerbation of existing lesions within forty-eight hours after the patient had taken two or three glasses of beer or whisky. By keeping a sharp lookout for such occurrences, one notes them with startling frequency, and one readily convinces the patient of the evil effect of even a little drink. I grow yearly more convinced that the syphilitic who wishes to insure himself against relapses must drink neither habitually nor intemperately. An occasional drink is permissible; but it is safest, all things considered, that he drink not at all." Keyes also adds: "Alcohol is the commonest as well as the most active enemy of the syphilitic."

"Malignant early syphilis is more frequent among those who have been alcoholic, malignant late syphilis among those who remain alcoholic. These two are the current causes of syphilis of the nervous system, and the various visceral and vascular fibroses. In debating the effect of alcoholism in syphilis a strict definition of the term is essential. By alcoholism is meant chronic intoxication by alcohol. A man may die of alcoholism without ever being drunk. Persistent drinking may make it impossible to prevent or cure tertiary relapses. I have quite

* Marshall, C. F.: "Syphilology and Venereal Disease." London: 1914.

recently witnessed the most striking evidence of this in a young man with a tuberculo-ulcerative infiltration of the lips. The lesions lasted, now better, now worse, for almost two years, and almost every exacerbation could be traced to a few, a very few, drinks. Close questioning reveals similar instances quite frequently. But the essential evil of alcoholism is not that it so often makes the early lesions of syphilis virulent and hard to cure, but that it, combined with inefficient treatment (and the two go hand in hand), is almost the whole cause of late syphilis. I have already cited my personal statistics in this regard, and my clinical impression is even stronger, much stronger, than my statistics.

"Statistically my 113 recorded alcoholics stand almost on a par with the insufficiently treated cases."

Duration of Tertiaries.	Less than 5 Years.	5 to 10 Years.	10 to 15 Years.	More than 15 Years.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Mercurial treatment for at least 18 months	60	20	4	6
Less than 18 months' treatment, exclusive of known alcoholics	30	33	21	16
113 alcoholics	34	32	19	15

Not only does alcohol aggravate the severity of the disease and render the patient more liable to the occurrence of late symptoms, but it interferes with the efficient treatment of these symptoms.

The most rapid and effective means of treatment now at our disposal are the arsenic compounds "606" and "914." Their use is not wholly devoid of danger, and, speaking of the susceptibility of patients to the toxic effects of these drugs, Colonel Harrison states: "Alcoholics are generally more susceptible if one may judge from the case-records of death. Probably this is due to the toxic effect of the remedy being exercised on blood-vessels which are already diseased, especially the kidney vessels. Possibly, too, the perverted metabolism of an alcoholic favours more rapid decomposition of the remedy within the organ and tissues. The weight of evidence is in favour of '606' and '914' exercising their toxic effect on the capillary endothelium, resulting in leakage of serum or blood into the surrounding tissues. Alcoholics naturally come under the category of cases in which the arsenical preparations are largely contra-indicated."

McDonagh has very definitely stated that "alcohol in time

exerts an evil influence on the cells of the cortex, thereby lowering their existence; therefore, on no account should an habitual drinker be given a full dose of salvarsan, but should be looked upon as a syphilitic with a nervous disease, and the rule of only employing half a dose applied to both."

Sir Frederick Mott declares: "A person who has syphilis of the nervous system has an invalid brain, and if he drinks he will certainly suffer seriously from it."

In the final report of the Royal Commission on Venereal Disease this statement appears: "Alcoholism makes latent syphilis and gonorrhœa active. It makes the treatment of syphilis and gonorrhœa much more refractory.

"Professor Ehrlich had no doubt that in some of the cases in which treatment by salvarsan had been followed by a bad result alcoholism was responsible. If alcohol is absolutely stopped during the treatment of syphilis and gonorrhœa, the result is more satisfactory."

Important as it is to recognize the relationship between the consumption of alcohol and the prognosis and treatment of venereal diseases, it is of far greater importance to recognize the relationship existing between the consumption of alcohol and the incidence of venereal diseases; for obviously no question of treatment can faintly compare in importance with that of the prevention of these diseases. Let me quote from Colonel Harrison in his textbook on Venereal Disease. "The prevention of venereal diseases is a task which should concern every citizen of the Empire. For these diseases will be equalled by none in their weakening effect on the national efficiency unless they are combated more generally and more energetically than at present. An attack of venereal disease always leaves the sufferer potentially, and very often actually, a weakened member of the community. Admittedly a substantial proportion of those who contract these diseases recover without apparent ill effect, but even in these cases the actual attack has levied its toll by temporarily reducing the productive power of its victim. On the other hand, a large proportion of sufferers from V.D. are left permanently damaged. Even amongst those who subsequently show no actual signs of the disease many can be found whose continual fear of its return has become a mental obsession which must interfere seriously with their efficiency. But even if these comparatively minor degrees of inefficiency are excluded, we are left with an important proportion in those who are never afterwards completely free from active signs, or are liable to a return of it as the result of abnormal

stress or strain, or of local injury. For venereal diseases are notorious for their tendency to recur in the spot which is weakened by overwork or injury. In short, if one could compare the total contribution to the common good of any 1,000 non-venereal persons with that of any 1,000 who had at some time or other contracted V.D. over a period of forty years, the advantage in favour of the former would be enormous, both in the total output of work and of healthy children to carry on the work of their fathers.

"To those who realize the ravages which venereal disease can cause, the misery which it can inflict on individuals, the slaughter of infants, born and unborn, the crippling of children, who are at least entitled to a fair start in life, the prospect after the present war is nothing less than appalling.

"It is a well-known fact that every war is followed by a great increase in venereal disease in the community, and the reason is not far to seek. The army returns home, and its members at once begin to celebrate their relief by having what is commonly called 'a good time,' which includes a due proportion of promiscuous sexual intercourse. If such has happened in the past, when the numbers involved were comparatively insignificant, what must be the result when the present huge army returns and is demobilized? Does any sane person imagine that the sexual indulgence and resulting V.D. will promise to be in appreciably less proportion than on previous occasions? On the contrary, there are reasons for believing that it will be greater." The grave significance of these words can only be appreciated when we recall to mind the condition in the early days of the war and in pre-war times. Let me quote from Sir Malcolm Morris:* "The Royal Commission came to the conclusion that the number of persons who have been infected with syphilis, acquired or congenital, cannot fall below 10 per cent. of the whole population in large cities, and the percentage affected with gonorrhœa must greatly exceed this proportion. Dr. Douglas White has pointed out that if 10 per cent. of the population of London has been infected with syphilis, it follows that in the metropolis alone there are 450,000 syphilitics, and, inasmuch as the mortality figures of syphilis for the whole kingdom amount to 6·6 times that of London, it suggests that there must be three million syphilitics in the kingdom. Gonorrhœa is much more prevalent; it is safe to assert that the cases of gonorrhœa are probably several times as numerous as those of syphilis." Speaking of the

* Morris: "The Nation's Health." London: Cassell and Co., 1919.

economic effects of those diseases, Sir Malcolm Morris says: "We may begin with the children. The subjects of congenital syphilis and gonorrhoeal ophthalmia crowd the special schools that have to be provided for the education of blind and deaf children. For example, in the London County Council schools for the blind there are some 1,100 children, more than one-half of whom—from 55·6 to 58·4 per cent.—owe their blindness to these diseases. Apart from the money spent in providing treatment for these blind and deaf children, the cost of educating them is from seven to ten times greater than that of educating normal children, and when their education is finished they may still be more or less a charge upon the community. To them must be added the large proportion of the idiots and imbeciles who are maintained in our eleemosynary and Poor Law institutions, as well as children who suffer from the bone and skin diseases due to congenital syphilis. How stands the case as regards adults? In the first place, an enormous amount of temporary incapacitation from work is brought about by venereal disease—how much it is impossible to say; but the venereal statistics of the navy and army throw some light on the question. Although in both these services the best methods of treatment are in use, and the incidence of the diseases has been diminishing, we find in the year 1912, with an average strength in the navy of 119,540 men, as many as 269,310 days were lost as the result of venereal disease; while in the home army during the same year, with a strength of 107,582 men, the average number 'off the strength' from this cause was 593, representing a loss of 216,445 days. Thus, with a total naval and military strength of about a quarter of a million, more than 485,000 days were lost from venereal disease. When it is remembered that the workers of the country—using the term in its widest sense—are millions in number, and that no organized attempt has yet been made to bring these diseases under control, it can be seen at a glance that the number of working days lost to the nation every year is to be counted not by the hundred thousand, but literally by the million. Even more serious than the temporary incapacitation of adults is the permanent disability which results from the late manifestations of syphilis. The estimate of the Royal Commission is that in England and Wales alone the expenditure on the victims of general paralysis of the insane in public asylums amounts to nearly £90,000 a year, and that if to this disease are added other forms of syphilitic insanity requiring asylum treatment, the annual cost cannot be less than £150,000, and may be much more. Many

sufferers from other incapacitating affections, such as locomotor ataxy, various forms of paralysis, circulatory affections, and chronic skin and bone disease, have to be maintained in Poor Law infirmaries, where, like the insane in asylums, they may linger for ten, twenty, or even thirty years, a constant charge upon a community, which is thus made to suffer for its neglect of an obvious duty. Immense as is the cost of educating and maintaining the victims of venereal disease, juvenile and adult, we still have to bring into account the potential loss involved in their inability to take their part in the productive work of the nation, and to this again has to be added the potential loss resulting from the sacrifice of multitudes of lives before birth and in early infancy. To convey any due sense of the magnitude of all this lamentable waste of the nation's assets is beyond my powers of exposition. I can only say, in the words of the report of the Royal Commission, that if it could be rendered in terms of annual expenditure, 'the resulting total must be enormous.' Is it not time, then, if only on economic grounds, that a strenuous and systematic effort were made to root out these diseases from the life of a nation which now has the most imperative reasons for husbanding its resources?"

Sir James Barr, speaking at the Canadian Medical Institution, said: "These diseases, from their deteriorating effects on the race, merit the attention of a statesman. A determined attempt should be made to stamp them out. The suffering caused to innocent wives and children calls aloud for their elimination."

If any measure can contribute to the *prevention* of these distressing diseases, it is worthy of the most careful consideration and adoption. Such a measure is indicated in one of the statements in the final report of the Royal Commission on Venereal Diseases: "Abundant evidence was given as to the intimate relation between alcohol and venereal diseases. Alcohol renders a man liable to yield to temptations which he might otherwise resist, and aggravates the disease by diminishing the resistance of the individual.

"The facts point to the conclusion that decrease in the use of alcohol will be an important factor in diminishing the prevalence of venereal diseases."

"Alcohol renders a man liable to yield to temptations which he might otherwise resist." Why is this so? Let me quote some sentences from "Alcohol and its Action on the Human Organism," issued by the Advisory Committee of the Central Control Board (Liquor Traffic): "The direct effect of alcohol

upon the nervous system is, in all stages and upon all parts of the system, to depress or suspend its functions; that it is, in short, from first to last a narcotic drug. Alcohol successively weakens and suspends the hierarchy of functions of the brain, and therefore of the mind, in the order from above downwards—that is to say, in the inverse order of their development in the individual and in the race. Now, of all the intellectual functions, that of self-criticism is the highest and latest developed, for in it are combined the functions of critical judgment and of self-consciousness, that self-knowledge which is essential to the supreme activity we call volition or the deliberate will. It is the blunting of this critical side of self-awareness by alcohol, and the consequent setting free of the emotions and their instinctive impulses from its habitual control, that give to the convivial drinker the aspect and the reality of a general excitement. Both introspectively and objectively this lack of self-control is clearly discernible in every stage of intoxication. It is commonly counteracted in part by the subject who becomes aware of it by means of a deliberately increased effort of self-control; but, as the influence of the alcohol increases, this effort ceases to be continuously effective, and the drinker surprises the observer (himself or another) by smiling or laughing aloud at some very small joke, or by remarks or other actions which betray the suspension of his habitual self-control."

The latter stages of intoxication do not for the moment concern us, but with regard to this earliest stage the Advisory Committee go on to state: "If we have truly stated the principle according to which alcohol attacks the functions of the brain and of the nervous system generally, it will be seen that *mental changes are naturally among the first* of all the symptoms of derangement to appear. With small doses of alcohol they may be the only symptoms which are noticeable; with larger they are the earliest of the whole symptomatic train of changes." The detailed forms which they (the mental changes) assume will, "under the manifold varieties of individual circumstance and character, appear as disordered items of behaviour almost Protean in shape and kind." Yet of these, various as they are, certain appear with such frequency, and have been so accreditably documented in carefully conducted test experiments, as to be worth specific mention here, since they can be regarded as established marks symptomatic of alcohol effect:

1. Uncritical self-satisfaction of the subject with his own performances.

2. Disregard of occurrences and conditions normally evoking caution of act or word.
3. Trespass of rules and conventions previously respected.
4. Impaired appreciation of passage of time.
5. Loquacity.
6. An argumentative frame of mind.

"These changes of mentality actually observed in laboratory experiments directed towards study of alcoholic effect are largely confirmed by general experience. As laboratory experiments show, they may occur when the dose and degree of action of the alcohol are quite insufficient to cripple manifestly and openly the power to perform routine technical operations, such as adding figures or typewriting by a person accustomed to perform them.

"To attempt to specify the lower limit of dose required to produce these symptoms is probably of little value. Not only is there varying susceptibility to alcohol from person to person, the susceptibility differing according to circumstances, digestive and other, under the same dose, but intellectual self-criticism and control are strong in one person, weak in another, and in the same person, while strong in respect of certain kinds of acts, may be weak in respect of certain others.

"But a point of greater practical importance is that, without signs of intoxication in the full ordinary or in the legal sense of the term, the bearing and individual attitude of mind suffer temporary changes as an effect of the drug, and those in contact with the person so afflicted have for the time being to deal with an altered individual whose mind lacks temporarily its normal factor of judgment and conspicuous elements of its self-control."

The sexual impulse is necessarily compelling.

For the continuance of the race a time arrives in adolescent life when this impulse is clamant for gratification.

Am I putting this too strongly? I think not. There may be some who would deny the compelling force of the sexual impulse—they must either be a long way removed from adolescence, or be singularly constituted; the large majority of men would admit it, for they know that to resist, it needs the best in them putting up its best possible fight. Impelled by this impulse and faced by the opportunity of gratifying it, what enables a man to resist? I will enumerate a number of factors, some or all of which play a part in enabling a man to resist: Religious training and convictions, sense of shame, sense of decency, self-respect, memories of home and home influences, high resolves, promises made, "playing the game," the high ideal, the best in a man,

loyalty to sweetheart or wife, thoughts of consequences—to the girl, to himself, fear of contracting disease, dread of exposure. To the man facing this situation add alcohol. Now “we have to deal with an altered individual, whose mind lacks temporarily its normal factor of judgment and conspicuous elements of self-control,” whose conduct is frequently marked “by disregard of occurrences and conditions normally evoking caution of act and word, and by trespass of rules and conventions previously respected.” These are the words used by the Advisory Committee of the Central Control Board.

As bearing upon our subject, this is a factor of profound import. This alteration in the man is fraught with such harmful possibilities that too much attention cannot be paid to it.

Tanzi, in his textbook on mental diseases, states: “Even in small doses alcohol exercises a paralytic action upon the higher psychical processes. Inhibition, in its more complex and elevated manifestations—judgment, modesty, reserve, shame, prudence—becomes weakened and suspended.” This being so, it is obvious that most of the factors which normally play a part in enabling a man to resist temptation either cease to exist or have lost their saving power, with the result that many men who without alcohol have withstood, with alcohol succumb to the temptation.

I say this is obvious; I do not think it will be contradicted by anyone of authority. May I quote from a great teacher, Dr. Luys, of Paris, answering my question to him as to the relationship existing between the taking of alcohol and infection with venereal disease and the treatment of venereal disease? He writes: “I am bound to state that in my opinion the influence of alcohol is altogether harmful upon the urinary tracts and upon venereal disease in particular.

“In a large number of cases I have seen venereal infection occurring in men who normally led a clean and orderly life, and who after a good dinner, accompanied by free drinking, have allowed themselves to be carried away, and have been very badly infected without being able accurately to recall the circumstances under which the act was committed. This sort of thing happens so exceedingly often that it may be accepted as a mere commonplace.”

I say this is an obvious truth admitted by all men of experience in venereal diseases, yet I wish particularly to emphasize this close relationship between the taking of alcohol and the incidence of venereal diseases, for it cannot be too widely known.

Whether venereal disease results or not depends upon whether

the other party to the transaction is infected or not. If a man escapes infection it is an accident. But is it not possible for the man so to choose his accomplice that danger ceases to exist? Let the man steer clear of the professional prostitute, and surely he will escape!

During thirty-three weeks new cases treated at the Rochester Row Military Hospital were questioned as to the source of infection, and the answers obtained showed that infection was received from "professionals" in 437 instances, from "amateurs" in 789. At the Canadian Venereal Hospital, Cherry Hinton, 2,667 men discharged between the dates October, 1916, to August, 1917, were studied. "Professionals" were stated to be the source of infection in 1,020 cases, "amateurs" in 1,647 cases (2,184 were members of the Home Forces, 483 Canadians).

Number of cases of syphilis from professionals	...	...	463
" " " " amateurs	...	...	640
Number of cases of gonorrhœa from professionals	...	...	557
" " " " amateurs	...	...	1,007

Examination on July 29, 1918, of 2,085 social case sheets at the Canadian Hospital, Etchingill, showed that "professionals" were stated to be the source of infection in 1,607; "amateurs" in 663.

Combining these two very different reports, we find that "professionals" accounted for 2,627, "amateurs," 2,310.

So the risk is not diminished by merely avoiding the "professional." On the contrary, Colonel Harrison, in giving his reasons for the inference that proportionately more venereal disease will result after this war than after previous wars, makes this statement: "Previously the source of danger largely existed in professional prostitutes, many of whom knew how to prevent the transmission of infection; they had, at any rate, become no longer contagious from the point of view of syphilis, and were only intermittently dangerous from that of gonorrhœa. Now a new source of infection has become prominent. Thousands of young women have left their homes during the present war to take part in war work, and have thereby been removed from powerful moral restraint. They have learnt how to overcome that incentive to moral restraint in women—the risk of conception—and have celebrated their emancipation by considerable sexual indulgence. The inevitable result has followed. A man may indulge in promiscuous sexual intercourse with infected women forty or fifty times without becoming infected, thanks to

the exposed position in which the virus is planted, and its delicacy, but a woman is infected almost the first time she has intercourse with a man suffering from venereal disease. A young woman of this class is far more dangerous than a professional prostitute. She probably suffers little or no inconvenience from the disease, and may even be ignorant of the fact that she is suffering from it; in any case, she is totally ignorant of the means of preventing her infection from passing to others, and the fact that she is not a professional engenders in her paramour a false confidence in her bodily purity. There is little wonder that two-thirds of all venereal infection amongst British soldiers is due to intercourse with these 'amateurs.'"

But what about prophylactics? In the "Note on Prophylaxis against Venereal Disease by the Chairman of the Inter-Departmental Committee on Infectious Diseases in Connection with Demobilization" this summary is given: "The only figures available, so far as they go, show that amongst these forces, which during the war employed the prophylactic packet system most energetically, no proportionate reduction was brought about in the infection rate. That certain drugs, if properly applied, are efficacious in preventing venereal disease. That if these drugs are not properly or skilfully applied, their efficacy cannot be relied upon. That the issue of prophylactic 'packets' tends to give rise to a false sense of security, and thus to encourage the taking of risks which would not otherwise be incurred, and the neglect of facilities for early treatment. That the excessive consumption of alcoholic liquors not only diminishes the sense of responsibility, but also tends to prevent the proper use of prophylactics and to delay the individual's application for skilled treatment. That the most carefully organized packet system, such as exists now in the army, has not produced such a general reduction in the incidence of venereal disease as to counteract the disadvantages mentioned in these conclusions."

In this connection, referring to the 2,085 social case sheets at the Canadian Hospital, Etchinghill, July 29, 1918, it is noted that 1,356 had used preventive treatment, while 727 had not; and in spite of methods of prophylaxis the approximate rates of venereal disease per 1,000 per annum for *all* troops stationed in the United Kingdom, 1916-1918, showed no decrease.

	1916.	1917.	1918.	1919.
January to June ...	38	36	43	39 (for May only)
July to December	34	36	38	

The Inter-Departmental Committee on Infectious Diseases in Connection with Demobilization, in their "Note on Prophylaxis against Venereal Disease," say: "The Committee are satisfied that, while certain drugs and medical preparations may be relied upon to remove or destroy the infection of venereal disease, if applied by skilled attendants very shortly after exposure, such satisfactory results cannot be secured if those drugs and preparations are used unskilfully or too long a time after exposure. As shown in this note, experience indicates that, however careful the instruction and however scientifically effective the prophylactic might be if used under proper conditions, it frequently fails to protect when applied by the individual, even when this self-application is supported later by additional skilled treatment. The consumption of alcoholic liquors, carelessness, natural excitement, forgetfulness or ignorance, has been the cause of numerous failures, even amongst those troops where the use of such prophylactic measures has been most efficiently organized and taught."

I am not here discussing the advisability of prophylactics, and I only mention them in order to note that alcohol tends to prevent the proper use of prophylactics and to delay the individual's application for skilled treatment, and also that their use does not eliminate risk. We cannot eliminate risk of infection from promiscuous intercourse. The more promiscuous intercourse, the more venereal disease. Perhaps I should apologize for making such an absurdly obvious remark before such a learned society, but is this fact at the present time sufficiently emphasized? Promiscuous intercourse means venereal disease. Alcohol tends to promiscuous intercourse. Is this so? Undoubtedly, yes. Knowing something of the effect of alcohol upon the mind, we reason that it must be so, and, knowing less about the mind "every man about town" knows it is so. This applies to the taking of alcohol in such small doses that its effects are limited to the early mental signs, when there are no signs of intoxication in the full ordinary or legal acceptance of the term. When these later signs have manifested themselves, and the patient is "drunk," then the relationship between this effect of alcohol and venereal disease is so obvious that a few words will suffice.

The drunken man, whether in that stage when "he becomes the passive and pliable sport of every chance impression that happens to affect his consciousness," or later, "when the intellectual processes of judgment and self-criticism and control are virtually suspended"—such a man in the present condition of

our streets and public places is in dire peril. What the man needs is protection—protection from himself and every other hurtful thing, then sleep—till the alcohol has been eliminated.

This is what he needs, but I am afraid protection is what he seldom gets. It is no credit to us that drunken people should be allowed to blunder on through our streets, unprotected, to their own undoing. Cannot we rectify this?

Instead of protection, infection comes along, and infection is often very hard-up, sadly needing money, and here's a helpless thing with pockets, and most likely money in them.

Alcohol is a potent factor in the spread of venereal disease.

Professor Sir Frederick Mott says: "Drink is not only the cause of a great number of crimes, but of great misery and human suffering; it causes disease, and accelerates and aggravates diseases caused by pathogenic organisms as tuberculosis and syphilis; moreover, it is the indirect cause of venereal infection in a large proportion of the cases."

Professor Adami, now Vice-Chancellor of the University of Liverpool, in his evidence before the Inter-Departmental Committee on Infectious Diseases, stated that 75 per cent. to 80 per cent. of men admitted with venereal disease had acknowledged that they had been infected whilst under the influence of alcohol.

Col. Harrison, at the Rochester Row Military Hospital, gave me the results of inquiries conducted there for thirty-three weeks; the condition at the time of infection, as described by the men when admitted to the hospital, was as follows: Perfectly sober, 599; drunk, 122; "jolly," 223; total abstainers, 312.

It would be more helpful if one knew what drink the men had taken who later described themselves as having been "perfectly sober." It would not be surprising if the average soldier admitted into a hospital should imagine that a few drinks did not matter, and that he was still "perfectly sober," when that type of confusion is apparent even in the "Note on Prophylaxis against Venereal Disease," where it is stated "that the *excessive* consumption of alcoholic liquors diminishes the sense of responsibility," etc. Whereas, according to the pronouncement of the Advisory Committee of the Central Control Board, it should have been stated thus: "That the consumption of *small doses* of alcoholic liquors diminishes the sense of responsibility," etc.

Fleet Surgeon W. G. Home* has stated that "the usual experience from year to year was that one-third of the illness of the navy was due to venereal disease, and I have never found

* See *British Medical Journal*, August 2, 1919.

any fleet surgeon to dissent from the view, which experience forced upon me, that two-thirds at least of the venereal cases occurring in the service were contracted when the patient was under the influence of drink."

Mr. Frank Kidd, of the London Hospital, before the Inter-Departmental Committee, stated: "In peace time men who fall are generally drunken; intercourse is not premeditated, and therefore outfits would not be provided, nor would the man be sober enough to use the outfits properly."

Mr. J. E. R. McDonagh, Surgeon to the London Lock Hospital, in a personal communication to me writes: "Hecht's observations made in my presence in Vienna in 1908 do not appear to have been published, but I know it worked out that over 90 per cent. of the patients who came to the General Hospital with a venereal disease were under the influence of alcohol when they contracted it. This is also my experience in private."

Moller* has shown that of 661 patients examined concerning the source of their infection, 67 per cent. could give no information, having been intoxicated at the time of infection.

Of 188 cases at present under treatment in a London hospital venereal clinic, 39 made no statement (this includes cases of congenital syphilis and of gonorrhœa in children); 78 state that they were sober at the time of infection (these are mostly female syphilitic cases); 71 state that they were under the influence of alcohol (these are mostly male gonorrhœa cases).

Mr. Ernest Lane, before the Royal Commission, in answering the question, "Do you not think that in 80 per cent. of the cases in which venereal disease is contracted they are under the influence of alcohol?" replied, "Yes; alcohol and venereal disease go hand in hand." The chairman of the Royal Commission on Venereal Diseases said: "We all know that the infection must largely be incurred under the influence of alcohol. The facts point to the conclusion that decrease in the use of alcohol will be an important factor in diminishing the prevalence of venereal diseases. Our evidence tends to show that the communication of venereal disease is frequently due to indulgence in intoxicants, and there is no doubt that the growth of temperance among the population would help to bring about an amelioration of the very serious condition which our inquiry has revealed."

Mr. McDonagh says: "Treatment is going to diminish syphilis, but a diminished consumption of alcohol is going to do more

* Moller: *Zeitschrift Bekampf du Geslech.*, vol. v., p. 7.

towards this end, and a raising of the standard of public morality is going to do the most."

In 1911, at Birmingham, I spoke at the 42nd Annual Breakfast given by the National Temperance League to the British Medical Association on "Alcohol in its Relationship to Diseases of Bacterial Origin," and there outlined the results of a large number of most carefully performed experiments by Professor Laitinen, of Helsingfors, and contained in his lecture on the influence of alcohol on immunity, delivered at the International Congress on Alcoholism in London in 1909.

I commend the careful study of these experiments—which to my knowledge have never been disproved—to all who are concerned with the tragedy of venereal disease, for here they can learn why it needs must be that the alcoholic subject exposed to infection is more liable to contract disease, and why, having acquired the disease, he is likely to have it in a more virulent form and be less amenable to treatment than a non-alcoholic subject.

In that address, speaking of alcohol—by virtue of its effects upon the mental processes—acting as an indirect cause of venereal infection, I used some words which I will quote, for I think they form a logical conclusion to this paper which I have had the honour of reading before this Society:

"These first effects of alcohol on the brain occasion a situation of such grave peril that everyone ought to know of it. Time does not permit me to elaborate this subject, so I crowd my meaning into a sentence: When a young life starts out from the shelter of home to fight the battles that must be fought, and brave the dangers that must be faced, one of the most priceless possessions, one of the greatest safeguards he or she can have is that of total abstinence from all alcoholic liquor."