Drunkenness and the physiological effect of alcohol / by Charles Mercier.

DRUNKENNESS AND THE PHYSIOLOGICAL EFFECT OF ALCOHOL.*

By Charles Mercier, M.D., F.R.C.P.

At the present time the medical world is being stirred by a new interest—an interest in the history of medicine—and therefore I make no apology for addressing you on the subject of drunkenness, although its importance is mainly historical. In other respects it is of fading and diminishing importance. We are told, in one of the most brilliant plays that ever was written, that damns have had their day; and, however premature the assertion may have been with respect to damns, there is no gainsaying that, in this country at least, drunkenness has had its day. We are now a sober nation, and instances of the affection of which I am to treat to-night must be sought for mainly in history. It is true that we are still, upon rare occasions, called upon to treat a case of delirium tremens; and some of us still hear, from time to time, the once familiar phrases, "Five shillings or seven days," "Forty shillings or a month," but these formulæ are rapidly becoming obsolete.

It is true that if we listened to some of the advocates of total abstinence, we should suppose that drunkenness was never so rampant or so prevalent as it is now; but these people have failed to move with the times. Their fulminations are out of date. They refer to a state of things that has long passed away. The antagonism to alcohol has fossilised into a superstition, and total abstinence is advocated for all and sundry, irrespective of whether they are temperate or not. For this reason it is losing, if indeed it have not already lost, its influence. For my part, I abominate intemperance; but I recognise that intemperance is not confined to indulgence in alcohol. There is intemperance in speech and in statement, as well as intemperance in drink, and, while it is admitted on all

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hands that the craving for alcohol is sometimes irresistible and unsurmountable by any effort, I find it difficult to believe that the craving for using exaggerated language about it might not be resisted and surmounted by the exercise of self-control. The drunkard is, at any rate, sometimes sober, but we have yet to wait for sobriety of language from some of the advocates of total abstinence. There comes into my mind a certain saying about compounding for the sins we are inclined to by damning those we have no mind to.

I do not say that the cult of total abstinence has never been of use, or that it may not now have its value in certain of our oversea possessions, to whose support we attach so much importance, and to whose opinion we attach a value that seems to me exaggerated. What I say is that the cult has lost its value and its importance here and now, for the same reason that leper hospitals and precautions against ague have lost their importance in this country at the present day : that is to say, because the conditions of their usefulness have ceased to exist.

The time was when England really was a drunken nation, but that time was long before the memory of anyone now living. The time was when there was no disgrace in being drunk—nay, it was the other way about. Drunkenness was the fashion, and he was disgraced in the eyes of his companions who went sober to bed. In my youth there was a convivial song, now long forgotten and even then long obsolete, which represented very fairly the prevailing sentiment of a hundred years before. It ran thus :—

He that drinks small beer and goes to bed sober,
Will fall as the leaves do,
Fall as the leaves do,
Fall as the leaves do,
And die in October.

While he that drinks strong beer and goes to bed mellow,
Lives as he ought to live,
Lives as he ought to live,
Lives as he ought to live,
And dies a jolly fellow.

In the latter part of the 18th century people sat down to dinner at four or five o'clock in the afternoon. Dinner was a stately and solemn ceremony, as needs must be when host and hostess carved for their guests, and were allowed after each course a quarter of an hour's law to eat their own when the others had finished. After two or three hours the cloth was removed, and the decanters went round in coasters on the polished mahogany. After a decent interval, when the stories began to broaden, the ladies retired, while the gentlemen settled down to the business of the evening. From that time until midnight drinking went on—not rapid or furious drinking, but slow and steady absorption as the decanters went round. From time to time the process was accelerated by the host calling upon one of his guests for a toast or a sentiment, and then all were obliged to fill and empty their glasses. Nowadays no one notices whether a health is actually drunk or not, but in those days the rule against heel taps was rigorously enforced, and he who left any remainder in his glass was held to be wanting in respect and loyalty to the toast, and might very well have to answer for his negligence next morning in a duel. The fashion of the toast is still with us, but in a mitigated and attenuated form. We do not now toast the reigning beauty, and the rule against heel taps is no longer enforced; and we are spared altogether the horrors of the sentiment. We are not now called upon after dinner to drink to "the reflection of the moon in the calm bosom of the lake," or to "the man who would place king or country before life and wealth." We should as soon think of toasting the man who broke the bank at Monte Carlo.

In the days I speak of, our forefathers did not dine by the light of the electric filament, or of incandescent mantles, for in the reign of George III. these conveniences had not yet been invented. They dined by candle light, and from time to time the servants came in to snuff the candles, and took the opportunity to loosen the cravats of those guests who had subsided under the table. At length the orgie came to an end, and the half-drunken servants staggered in to carry their wholly-drunken masters to bed.

In those days the doctor was often half-seas over when he attended his drunken patient; the parson was sometimes drunk in the pulpit; judge, counsel and attorneys pursued their avocation in court in a prevailing atmosphere of hot coppers. The Prime Minister went drunk to the House of Commons, where he was attacked by the Leader of the Opposition, also drunk, while order was kept by a Speaker who was half-seas over. There was no excise on spirits, and the coarser kinds of distilled liquors were didiculously cheap. As you passed along the bye-streets of London, and perhaps of other great cities, you might read the legend hung out over the drink cellars: "Here you may get drunk for a penny; dead drunk and clean straw for twopence."

Contrast that state of things with what exists now, and then will any teetotaller have the hardihood to maintain that drunkenness has increased, or is becoming worse, or is as bad as ever? Such assertions serve merely to expose the ignorance of those who make them. The fact is undeniable and indisputable, not only that we are much more sober than we were, but that the English—I say nothing about the Irish or the Scotch, because I do not know—the English are now a sober nation. It is very rare now to see any man above the rank of an artisan drunk, and the enormous majority of artisans—yes, and of day labourers—are sober men. It is futile, I had almost said fatuous, to go on repeating a parrot cry that was once applicable to a state of things that has long passed away. Unless we wilfully shut our eyes, or wilfully say the thing that is not, we are compelled to admit, with whatever reluctance, that the English are now a sober nation.

If we consider the altered condition of life and of employment, we see that this must be so. The occupations by which men now earn their living require a skill, a nicety, a vigilance, an accuracy, an attention, which are incompatible with even occasional drunkenness. The horses of a stage coach could find their way to their accustomed destination, even though the driver was so drunk as to be incapable of directing them. Indeed, I have been told by an eye-witness that, in the early

part of the last century, the London coach came safely into the inn yard in Birmingham, although the driver was found frozen to death on his box. But to-day the London express could scarcely be trusted to come safely into Snow Hill Station if the engine-driver were frozen to death, or even if he were drunk. When we consider the enormous army of men that is employed on and about railways—on the footplate, in signal-boxes, in the guard's van, and in other responsible positions—and remember that even a momentary lapse of vigilance might result in horrible disaster, we must acknowledge that, wherever drunkenness is to be found, it is not among railway servants. Who ever heard of an engine driver, a stoker, a signalman, or, for the matter of that, any employee of a railway company, appearing in a police court on a charge of drunkenness? Accidents do unhappily occur to trains, and every such accident is inquired into with the utmost stringency by the Board of Trade, but who ever heard of a railway accident being attributed to the drunkenness of a railway man? Not one. And the railway men are but a sample. Machine work supersedes hand labour everywhere, and in almost everything; and the men who tend machines, whatever the nature of the machines, must be sober men, and are sober men. The penalty of drunkenness to the tender of a machine, and not only to him but to his mates, is too terrible to be incurred. Positively, the only class of men concerned with machines who ever appear in the courts charged with drunkenness are the drivers of motor vehicles, and even of these the proportion charged is almost infinitesimal. And we must remember that this is a new industry, an industry of enormously rapid growth, and can scarcely be expected to attain stability for a few years. Consider the enormous number and proportion of the population of this country that is daily concerned with the working of some kind of machinery, and consider that you rarely or never hear of one of them being accused of drunkenness, or even of losing his place for drunkenness, and you must admit that among the artisan class a drunkard is become a rarity, a curiosity, and an anachronism. Even in the lowest ranks of labour, among navvies, dockers,

and day labourers, sobriety is the rule, drunkenness the rare exception.

I know what you are thinking, and the objection you would make if etiquette allowed you to interrupt me at this stage. What you would say, and what some of you can scarcely restrain yourselves from shouting at me, is : " How about the police court convictions? If the country is as sober as you say, how do you account for the 70,000 or 80,000 convictions for drunkenness in the police courts every year? " Well, that is a large number, and we have it on no such vague estimate as some of the teetotal statistics are based on, but on the solid foundation of the Reports of the Prison Commissioners. Are their numbers not large enough to falsify my optimism? They are not. The numbers are large, but the proportion to the population is not large. It is very small. The 80,000 drunks are all that are convicted out of a population of some 32 millions, which gives, if my arithmetic is right, but one conviction in 4,000 persons, or ·25 per 1,000. " But," you say, " the 80,000 are convictions only, and do not include the immense number of drunkards who escape conviction." To this I answer : " Pardon me, but how do you know that there is an immense number of drunkards that escape conviction? Where do you get your information? What is the evidence? Grant that not every drunkard is convicted for every drunk, and that there is a margin of drunkards in excess of convictions, I know of no evidence that the margin is a large one ; and even if it be, I have a huge set-off. For the 80,000 are 80,000 convictions, not 80,000 persons ; and many, very many, of these convictions are convictions of the same person over and over again. Suppose an average of only two convictions apiece—and many are convicted five and ten times, and some two and three hundred times—but suppose only two convictions apiece, it brings the proportion of persons convicted to one in 8,000. Now, I say that a population in which only one person in 8,000—the proportion is really less—gets sufficiently drunk to fall into the hands of a vigilant and efficient police, is a sober population ; and to speak of drunkenness as a crying and prevalent evil is a

gross and unpardonable exaggeration. I can remember the time when judges, in charging grand juries, insisted at assize after assize, all over the country, on the large proportions of crimes that were due to drink. We never hear such charges now.

So far, then, we may congratulate ourselves. We are a sober people, and the lugubrious vaticinations of the temperance orators—according to whom the nation is drinking itself into hoggishness and imbecility—are uncalled for and unjustified.

But now I want to take you a little farther with me. I have lately been reading a work on alcohol by an operating surgeon and a lady doctor, and I find from it that alcohol is wholly, unmitigatedly and unredeemably vile. I find, in the first place, that vegetables, when they are watered with alcohol —if I may use the expression—wither and die, and I resolved at once that never in future will I water my cabbages with '47 port or Château Mouton Rothschild, *Grand vin*, or even with the effervescent production of the widow Cliquot. The perusal of this book has determined me to find some other destination for these pernicious, if exhilarating, beverages; and my cabbages will have to put up with a less attractive and less expensive form of moisture—with diluted sewage, for instance, which I have found very good for cabbages. And it seems to me that if we are to abjure alcohol because it is pernicious to cabbages, it would be a good plan to drink diluted sewage, which is so beneficial to them.

I find, on the authority of these authors, that there is not an organ, not a tissue, not a function of the body, nor a faculty of mind, whether of man or of guinea pig, that is not vitiated, corrupted, perverted, ruined, and devastated by the detestable practice of drinking alcohol; and I gather from the general tone of the book, though it is nowhere explicitly stated, that from a moral point of view it is several degrees worse to drink alcohol in moderation than to get blind drunk. Really, it is hard to say which is the most exhilarating reading for a wet Sunday—"Alcohol and the Human Body" or one of Lord Roberts' speeches, or an article on "Eugenics." We English, drunken,

besotted, cowardly, and degenerate as we are, are doomed to speedy extinction; and by all the rules of the game, we ought to have been extinct long ago. We know, however, that the Germans will conquer us the moment they can make up their minds to spend on the task some of the time they now occupy in drinking beer. The English nation is effete, worn out, degenerate, decrepid; a nation of imbecile, idiotic, impotent, diseased dwarfs. Such is the cheerful spectacle held up to us by these encouraging mentors.

If I may be allowed to compare small things with great, in some respects I resemble Satan. My teetotal friends will tell you that I resemble him through and through, but my modesty will not allow me to accept the comparison. I am like him, however, in this respect, that I come from going to and fro in the earth and from walking up and down in it; and in travelling about the country, what do I find? I find myself passing through evidences of prosperity such as can be paralleled in no other country in the world. I find thick clusters of cities, absorbed in industry, teeming with wealth; miles and miles of warehouses, factories and shops; miles and miles of handsome prosperous suburbs. Between the cities I find a smiling country, substantial farmhouses, comfortable villages, flocks and herds innumerable. I find London the clearing-house, the financial centre of gravity, of the whole world. I find that every great epoch-making discovery, with the sole exception of heliocentricism, such as gravitation, combining proportion, evolution, has been made by an Englishman. I find that, with the sole exception of printing, every great mother invention, the fruitful parent of scores of others, such as steam, electro-magnetism, the gas engine, was made by an Englishman. I find that every country in the world comes to England for its iive stock; the best horses, the best cattle, the best sheep, pigs, fowls, pigeons, dogs, cats, bees, are all English-bred; and I have no doubt that if we tried we could breed the best Polar bears and cockatoos. From methods of education to methods of managing street traffic, the world comes to England to learn. Where is the evidence of decadence

and decrepitude? That we have faults I will not deny. Indeed, there is one great and glaring defect in the English character, from which only the inhabitants of the northern part of this island are entirely free. It is that we have not a sufficiently good conceit of ourselves.

I cannot find any evidence of this prevalent drunkenness that is our ruin; but, granting that it exists, and allowing to the full all the vileness and horrors that the enemies of alcohol attribute to it, and to those who take it, I still find, in their utterances, and in the book on "Alcohol and the Human Body," a very conspicuous and remarkable defect. The evil effects of taking alcohol, even in the smallest quantities and on the rarest occasions, are dwelt upon, insisted on, and reiterated, until in truth the thing becomes wearisome; but there is one aspect of the subject that is strikingly and conspicuously absent. I do not now refer to the evil effect that the cult of total abstinence has on the judgment or on moderation of statement and sense of proportion. What I have in mind is this: it is usual and natural for an investigator who is describing some very horrible and disastrous state of things, to search out the origin of it, and to suggest a remedy by attacking the cause. If he does not do this, we are apt to suppose that he is a seeker after mere sensationalism, and only wants to make our flesh creep. I have listened to many a teetotal address, and perused much teetotal literature, and I am bound to say that I cannot find any inquiry into the reasons why alcohol is so generally attractive, nor one word to account for, or explain, or suggest, why it is that people take it. Yet, if it is as horrible, as degrading, as devastating as it is said to be, this is an inquiry that seems worth pursuit. If those who take alcohol, like those who use fusees,

> All grow by slow degrees,
> Brainless as chimpanzees,
> Meagre as lizards;
> Go made, and beat their wives;
> Plunge, after shocking lives,
> Razors and carving knives
> Into their gizzards,

surely it is worth while to ask why they take it, why the race is bent on destroying itself in this way, when there are so many ways, some of them surely more agreeable than by converting ourselves into masses of corruption and our children into gibbering idiots. That alcohol is the most speedy and effective agent for the destruction of both body and soul that the devil has been permitted to introduce to the children of men, all teetotallers are agreed; but why, in the face of its known effects, people still continue to take it, is a question that, natural as it seems, does not appear to have occurred to them.

Now, to me, this is the root of the whole matter. If people were not attracted by alcohol, if they did not desire it, if they had no appetite for it, if they derived no satisfaction from it, they would not take it, and there would be no need for all these propaganda; and I submit that it is quite as useful to investigate the cause of an evil as it is to denounce it. The agreement of our teetotal friends seems to be that no one but themselves knows the disadvantages of getting drunk, and that if the drunkard is only told often enough, and loud enough, and emphatically enough, that it is a bad thing to get drunk, he will immediately mend his ways and become sober.

I can only say, in the first place, that if the drunkard does not know by this time that alcohol is a poison, it is not for want of having that salutary truth dinned into his ears with sufficient frequency and emphasis at teetotal meetings and in teetotal publications; and in the second, my experience is that the drunkard knows the ill-effects of getting drunk quite as well as his mentor, and sometimes a good deal better. When a patient tells you, "It is no use talking to me like that; that is all stale news to me; my father drank himself to death, and so did my grandfather, and I am going the same. Leave me alone; you can do me no good"; or when he says, "Drinking myself to death? I know I am. Very well, I would rather die a few years sooner than give up the drink. I drink because I like drink better than anything else in the world—better than my life. My life is my own to do as I like with; and if I prefer to sacrifice it rather than give up the drink, you can't frighten

me into becoming sober." When, I say, your patients meet you in this vein, it is very little use to tell them that alcohol is bad for cabbages, and therefore bad for them; and unless you can get behind this attitude, and find out what the attraction of alcohol is, you may as well save your breath to cool your porridge.

I say that the time is long past, if there ever was a time, when any useful purpose could be served by proclaiming the ill consequences of getting drunk. The most besotted drunkard is as well aware of them as the most bigoted abstainer. I say, moreover, that the absurd exaggeration of the anti-alcohol fanatics brings discredit on their cause, and tends to make people indifferent. When the ordinary man or woman hears that alcohol is a deadly poison, and that every drop he takes brings him within measurable distance of his grave; and when he sees around him plenty of healthy, hearty people who take their pint of beer, or their half-pint of claret, every day at dinner, and live to a good old age, that is perhaps more genial, more lovable, and more generally respected than that of the fanatic abstainer who warns them of their wickedness, he says "Bosh," and I am not sure that he is wholly without justification, though I should not myself use such a strong expression.

No. The task we should set ourselves, if we wish to diminish the small remnant of drunkards that still remain among us, is not to cry "Bogey," nor yet to bid them observe how vastly superior to the rest of mankind are the people who do not take beer with their meals, but to search out the reasons for drinking. Why does a man like his glass of beer or wine? Why are most of us content with a glass or two, while others must go on until they are beastly drunk? These are the questions that must be asked and answered if we want to accelerate the natural process by which drunkenness is dying out amongst us.

Why do people take alcohol? That is the crux of the matter; and it is important to recognise that no one answer will account for all the cases. The reason is different in

different people; and while I admit and declare that in some people and for some quantities of alcohol the reason is a bad reason, I contend that in other people and for other quantities the reason is a good and valid reason, and that in these cases alcohol is a gift of God that should not lightly be rejected.

The simplest answer, no doubt, is: Because they like it; but this answer is true only of a minority of alcohol drinkers, probably of only a small minority. If, instead of raving indiscriminately against all who take alcohol, whether in excess or in moderation, we ask of them why they take it, we shall find but few who will say they take it because they like it—because the taste is agreeable to them; and most of them who do answer thus probably misapprehend the meaning either of the question or the answer. There are, in fact, few people who are endowed by nature with a palate so discriminating that they can appreciate the bouquet and the flavour of a fine wine; and the majority of those who drink to excess care very little what the taste of their liquor may be, so that it is strong enough. Eau de Cologne, methylated spirit, or even the liquor in which anatomical specimens have been preserved, will serve their purpose if nothing more tasty is available.

Another answer that we shall often get is that alcohol is taken to quench thirst; but this answer, although it may be given quite *bona fide*, is, we may be sure, never true. Persons who answer thus do not distinguish. They are not accustomed to analyse their own sensations, and since they have a desire for alcohol, and alcohol is liquid, they call their desire by the common name that is given to the desire for liquid as such, and say they are thirsty. But they are not thirsty in the common sense. If they were, they would drink, not alcohol, which does not quench thirst, but water, or some other bland liquid. What they mean when they say they are thirsty is that they have a thirst for alcohol, which is quite a different thing. What the vast majority of persons who drink alcohol, drink it for, is not because they like the taste of it, nor because they are thirsty, but for what is sometimes called its physiological effect, but what ought to be called its psychological effect, that is to

say, in plain terms, because it makes them feel jolly. It raises their spirits. It confers happiness. It gives them a good conceit of themselves. Is it any wonder that it is so much valued by the English, who are so wanting in this useful sentiment? Is it any wonder that the Scotch, who are not as a rule teetotallers, are so richly endowed with this quality? It generates a sense of capability, which is one of the main elements in happiness. Now, I fear I shall be outraging the Nonconformist conscience, which is the lineal descent of the Puritan conscience, when I say that, in my opinion, there is nothing intrinsically or positively wrong in being happy. I have the temerity to assert that it is in itself a state of mind not blameworthy, but praiseworthy. It is not undesirable, but desirable. I know that this is a very unpopular doctrine, and that it is looked upon by many as a very immoral doctrine; but I take my courage in both hands, and I assert firmly that on the whole, and other things being equal, it is better for ourselves and for all around us that we should be happy than that we should be unhappy.

I daresay that some of you know that my practice is in the treatment of mental disorders, and there are few commoner disorders of mind than an unreasonable depression of spirits—a feeling of misery that is not justified by the circumstances in which the patient is. When such a patient comes to me and demands relief, sometimes almost with menaces, I have said to him, "My good sir, I cannot give you two tablespoonfuls of happiness three times a day out of a bottle." That is what I have said, but I didn't mean it. I could have given him a prescription, which he need not have gone to a chemist to get made up, and which would have given him, at any rate, temporary relief. If I have not done so, it is because I am not as blind to the defects of alcohol as my friends the teetotallers are to its merits. I know that, for various reasons that I need not enter into now, it would be a dangerous expedient, and I have not followed it. But the fact remains that alcohol does raise the spirits, it does make a person happy, and this is the main reason and the main effect for which it is taken. That

the effect is transient is no argument against the use of alcohol. It is better to have loved and lost than never to have loved at all; that is to say, it is better to be happy for an hour or two than not to be happy at all. The unfortunate thing is—and the whole case against alcohol rests upon this—that with use the effect diminishes, and to obtain the same effect, the dose has to be continually increased. Still, although, if alcohol is taken frequently, the dose must be increased to produce the same effect, this is not true if it is taken seldom; and even if it is taken regularly and always with the same moderation, although the full euphoric effect is not produced, some effect is produced, and the regular imbiber of moderate doses of alcohol is by so much better off than the abstainer that, though he does not attain to the hilarious exhilaration of his first dose, he yet reaches a placid contentment, a good-natured geniality, which, if I may trust my own observation, is not often attained by the total abstainer.

I believe that the majority of drinkers take alcohol for this euphoric effect; but certainly this is not the motive with all of them. There is another physiological effect of alcohol which is upon occasions of the utmost value, and which, as far as I know, has never been referred to by any writer on the subject except myself. Yet it is so manifest that the only way in which we can account for the universal silence on the subject is that those who have written about alcohol have gone into the matter with the firm determination to find it all bad, and this prejudice has blinded their eyes to patent and clamorous fact. This unrecognised effect of alcohol is the effect for which many seek its aid, and is this: Alcohol has the power to unlock the store of energy that exists in the brain and to render available, for immediate expenditure, energy that without its use would remain in store, unavailable for our immediate needs. I may illustrate what I mean by one or two parallels. It is well known in agriculture and horticulture that the heaviest crops are not to be secured by giving manure *ad libitum*. If farmyard manure is given in increasing quantities, a stage is at last reached at which the yield is not increased, and may even

be diminished. If, when we have reached the maximum crop that manure will produce, we give to our land, instead of manure, a dressing of lime, we get always an increase, sometimes an enormous increase, in the yield. Why is this? Lime is not a food for most plants, any more than alcohol is a food for most men, but yet by the administration of lime we may add enormously to the energy of the growth of plants, and by the administration of alcohol we can add very largely to the output of energy by men. The adversaries of alcohol tell us, with an iteration and re-iteration that deserve Falstaff's epithet, that alcohol is not a food. They do not tell us that roast beef is neither clothing nor house room, yet the one statement is as good an argument against the use of roast beef as the other is against the use of alcohol. Lime is not itself a plant food except in special cases, but it unlocks and renders available to plants the store of food that exists in the soil, but is inaccessible to the plants, and that without the aid of lime would be locked up against them. Similarly, though alcohol is not itself a food, it does without the slightest doubt enable many people to assimilate and digest food that without its aid would be unavailable to them. I do not pretend that this is the most important function of alcohol. I am coming to that, but it is undisputably a function, and a useful function, and I shall not be convinced by any number of experiments in which alcohol has been administered to robust and unwearied guinea pigs, without increasing their weight, that a glass of wine will not assist the digestion of a harassed man of business at the end of a tiring day.

However, this is rather by the way. The digestive value of alcohol is only one instance of its power of opening the store of energy and letting some go free. Let us take another illustration. You have, some of you, as I have reason to know, prepared yourselves for the ordeal that you are now undergoing, by taking a glass of champagne with your dinner; and others of you may have solaced yourselves with the more pungent but less effectual ginger beer. Those who have studied the manners and customs of these beverages know that, when first poured

out, they effervesce freely, but after a time they go flat, and are much less palatable. But the fact that bubbles of gas no longer rise spontaneously does not mean that no gas is contained in their depths. All that would come out spontaneously is come and gone, but we can get more out if we add an appropriate liberator. Drop some powdered sugar into each glass, and see what happens. Immediately a swarm of bubbles rises, and breaks at the surface. Just in the same way, the energy that accumulates in our brains during the night spouts out and froths over when the cork of sleep is drawn; but towards the end of the day the bubbles are few and rise languidly. The liquor that was so brisk and sparkling is become flat and stale, and to extricate a new spurt of energy we must drop some sugar into the golden bowl. What we use for the purpose is, indeed, not plain sugar, but altered sugar—in fact, fermented sugar. We add a little alcohol, and in a few minutes the liquor begins to fizz again. The energy that was locked up is set free; the task that was unsurmountable becomes easy.

The evidence that alcohol has this liberating effect on the energy in the brain is manifold. In the first place, when is alcohol taken? What are the times and seasons for taking it? It is taken towards the end of the day. None but a hardened toper takes any form of alcoholic drink in the morning. It is true that our ancestors,

> Ere coffee or tea or such slip-slops were known,

took beer for their breakfast, but the beer that they took at this meal was always by choice small beer, that is to say, beer with the minimum of alcoholic content. Even that hardened toper, Christopher Sly, when he wakes in the morning after a debauch overnight, calls for a pot of the smallest ale. Why is alcohol drunk by sober people late in the day only, and never in the morning? Because in the morning the store of available energy is ample and is not only spontaneously liberated, but wells up and bubbles out of us. It is not till it ceases to flow spontaneously that a liberator is needed.

For the same reason children, in whom the flow of energy is well-nigh inexhaustible, neither need, nor desire, nor like alcohol. It is distasteful to them, and it is harmful to them; and the reason is easy to see. They need no liberator for their stored energy.

Again, some confirmed drunkards owe their habit to the fact that they have habitually overdrawn their account of energy, and have gone on working to the exhaustion point. When they first reached this stage, and the eager mind still craved, or dire necessity demanded, further exertion, there was at hand a ready means of compassing the impossible. They had drawn upon their available store of energy until no more would come, but there was more in store, though they could not get it out, and by taking alcohol they could make the stale liquor fizz again. They could release their reserves, and with their aid complete the task that without them was unsurmountable. The next time the difficulty was felt, it was surmounted by the same means, and gradually a habit was established. But soon a new feature showed itself. When a spirited horse first begins to tire, a mere touch of the whip starts it into a gallop, but as the poor creature becomes more and more exhausted, it must be first lashed, and at length unmercifully flogged, and even then we can get out of it no more than a jog trot. So when the jaded mind or body first demands a stimulus, a glass of wine suffices to start it into full activity again; but with each repetition more must be taken to produce the same effect, until at last the unhappy victim cannot put on his clothes in the morning till he has had his dram: cannot perform his daily task with a smaller stimulus than is supplied by a bottle of whiskey.

You will observe that I am not wilfully blind to the ill effects of alcohol, as my friends the teetotallers are to its merits. I do not say it is advantageous, as they say it is pernicious, at all times, in all circumstances, to all people. Any such sweeping statement about anything, I care not what, raises an instant suspicion of prejudice and exaggeration, even if it does not carry on the face of it its own refutation. I assert that in

some cases, to some persons, alcohol is pernicious; and I point out how and why it is pernicious, but I should not pride myself on my judgment if on this account I was blind to its advantages to other persons in other circumstances. I do not say that because food is good for everyone in moderation, and when they are hungry, therefore everyone who is allowed to have food will eat till he bursts; nor do I say that because some people eat till they burst, therefore no one should be allowed to touch food. There seems to me to be a want of logic somewhere in this reasoning, but my friends the teetotallers do not recognise these subtle distinctions. With them, the man who will not agree that alcohol is the most virulent poison in the pharmacopœia, who will not admit that "one, or two at most, drops make a cat a ghost, useless except to roast" is a shameless and irreclaimable drunkard, and worse than that, and worse than that, and worse than that.

Is it not clear that if alcohol has the power of enabling us to draw upon our reserve of energy, then we have in it an agent that may be of the greatest possible service in grave emergencies? and although it is open to abuse—as what useful agent is not?—yet on occasion it is most valuable and precious, and is not to be reviled and discarded because a very few use it excessively and injuriously. If alcohol does act in the way I describe, and enables us to draw upon our reserves, then it is clear that it will leave us more exhausted—it will leave the nervous system more depleted of energy, more emptied of its proper contents—than if we had not taken it, and therefore we shall need more rest and more sleep to rebuild our reserves. It is not without significance that in this matter alcohol provides its own remedy, for whatever its vices and dangers, no one can deny that a sufficient dose of alcohol is as effectual a soporific as even an inaugural address.

If alcohol has this power that I claim for it, of liberating latent energy, it will exercise the power, not only when the available energy is used up and exhausted, but at all times; so that even when energy is flowing freely out of store, the taking of alcohol will add to the freedom of the flow, and this

augmentation of the supply of free energy will show itself in increased activity of body, or of mind, or of both. That alcohol does increase the activity of both body and mind there is abundant evidence to show. The increase is but temporary, and is apt to be followed by exhaustion, but increased activity there always is. What form the activity will take, must depend upon the state of the different parts of the brain, as to repletion or exhaustion, when the alcohol is taken. If the highest level of the brain contains plenty of energy, this energy will be set free by the alcohol, and the result will be increased activity of mind. If these higher levels are empty, more energy cannot be had from them, and what increase of activity results will be activity of body, and will be crude and unintelligent; and between these two extremes there will be every grade. Is there any evidence that these are in fact the results of taking alcohol?—I think there is: I can adduce abundance.

When a party of strangers sits down to dinner, how stiff, how formal, how constrained, is not their conversation through the soup and the fish! But note the transformation when the champagne has been round. Then the string of their tongues is loosèd. The room hums with animation, the shy find themselves at their ease, the dull become witty, the clever become brilliant; even the ill-dressed forget their embarrassment. But let the alcohol be taken by those whose higher brain levels are ill-developed, or have been exhausted and placed out of action by previous doses of alcohol, and what is the result? Still there is over-action, but the over-action is now over-action of body, and is crude, unintelligent, and ill-directed. No teetotaller will deny that a man in his cups is apt to be boisterous and uproarious. He sings and shouts; he jumps over the chairs and tables; he may even smash the furniture—all manifestations of an increased output of energy from a low level.

I have pointed out to you how natural and how universal a custom it is to postpone our ingestion of alcohol to the late hours of the day, and I have indicated the reason. It is because in the morning, after the recuperation of sleep, the outflow of energy is at its maximum, and needs no reinforcement. It is

when the occupations of the day have depleted our stores of energy that we find the liberating effect of alcohol so potent and so advantageous. In the morning there is no need of it, and its absence is no drawback. Then it is not missed. Those of you who have attended an annual meeting of the British Medical Association have, no doubt, received an invitation to a non-alcoholic feast, which is held for the encouragement, the countenance, and the advocacy of the cult of total abstinence from alcohol. It is very significant that this non-alcoholic banquet always takes the form of a breakfast. It is held first thing in the morning. The abstainers, you see, are wise in their own generation. In the morning the stimulus of alcohol is not needed. Its absence is not felt. The speeches, so far as my recollection serves me, are not much more dull, nor is the audience much more bored, than they are at the annual dinner of the Association; but what the funereal gloom of a teetotal public dinner would be, the Medical Temperance Society has wisely not endeavoured to test.

In further corroboration of my thesis that the effect of moderate doses of alcohol is to stimulate the mental faculties of those who possess mental faculties, and especially to stimulate those faculties which some think the highest, such as imagination, fancy, picturesque imagination—the artistic faculties as we may call them—I point to the fact that there has never been one distinguished originator in any branch of art who did not take alcohol, at least in moderation, and many have taken it, alas! in excess. It would be invidious to mention names; and I think it would be unnecessary. The boot is on the other leg. Name, if you can, one great practitioner—I think I may go farther, and say one practitioner small or great—in any branch of creative art—poet, painter, novelist, dramatist, musician, or what not—who has not enjoyed his glass of wine, or whiskey if he could get it! Moreover I will call attention to the fact, indisputable if lamentable, that it is the great nations, the victorious nations, the progressive nations, the nations that are in the van of civilisation, that are the drinking nations. I don't say that they are great

because they drink, but I do say that this disposes of the argument that a drinking nation is necessarily a decadent nation. When we drank in the way I have described at the beginning of this address, we were victorious in Blenheim, at Ramillies, at Oudenarde, at Malplaquet, at Copenhagen, at the Nile, at Trafalgar, at Busaco, at Salamanca, at Vittoria, and at Waterloo. Now that we are sober we are beaten at Majuba, at Colenso, at Magersfontein, at Spion Kop, at Sanna's Post, and at more places than I care to recall.

A world of total abstainers might be a decorous world, a world perhaps a little too conscious of its own merits; but there is no reason to suppose that it would be an uncontentious or unprejudiced world, or a world from which exaggeration of statement, intemperance in speech, or intolerance of opinion would be banished; and there is some evidence to make us anxious lest it should be a drab, inartistic, undecorated world; a world without poetry, without music, without painting, without romance; utterly destitute of humour, taking sadly what pleasures it allowed itself, and rather priding itself on its indifference to the charms of wine, woman and song.

I should like, if possible, though I fear the effect is hopeless, to guard myself against misinterpretation. I make no doubt that it will appear in the papers to-morrow that I have advised you all to go home and get blind drunk—and that you followed the advice. I make no doubt that I shall leave this room with the reputation of an habitual drunkard, and that I shall be known in future as the Dop Doctor; for there is a considerable section of my countrymen who cannot distinguish between moderation and excess, either in drinking, or in statement, or in anything else. I must put up with that, however, and fortify myself as best I can with the consciousness, which I hope you will share with me, that all I have said is to urge that we should appreciate and value at their actual worth, no more and no less, the kindly fruits of the earth, so as in due time we may enjoy them.