

Temperance - Alcohol Physical Effects

REPORT OF MEDICAL CONFERENCE ON THE SUPPRESSION OF INTEMPERANCE

(REVISED)

CONVENED BY THE

Church of England Temperance Society,

IN THE

SHELDONIAN THEATRE, OXFORD,

ON OCTOBER 30, 1876,

UNDER THE PRESIDENCY OF

DR. H. W. ACLAND, F.R.S.

President of the Medical Council, and Regius Professor of Medicine in the University of Oxford;

INCLUDING A PAPER BY

DR. B. W. RICHARDSON, M.A., F.R.S.

AND ADDRESSES BY

PROFESSOR ROLLESTON, M.D., F.R.S.

Linacre Professor of Anatomy and Physiology,

AND OTHERS.

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OBJECTS.

- I. The promotion of Habits of Temperance.
- II. The Reformation of the Intemperate.
- III. The removal of the Causes which lead to Intemperance.

BASIS.

Co-operation between Abstainers and Non-Abstainers, on the broad principle of Christian liberty, for the promotion of the above objects by Moral, Social, and Legislative action.

MEDICAL CONFERENCE,

SHELDONIAN THEATRE, OXFORD.

A Medical Conference in connection with the Church of England Temperance Society was held in the Sheldonian Theatre, by permission of the Vice-Chancellor, on Monday Oct. 30th, under the presidency of Dr. Acland, F.R.S., President of the Medical Council, and Regius Professor of Medicine in the University. The Conference was held for the purpose of 'Considering what means can be adopted to check the spread of intemperance,' and was very largely attended by medical men, clergymen, and laymen of the Church of England, ministers of other denominations, and the general public, including the Bishop of the Diocese, the Rector of Exeter, the Rector of Lincoln, the President of Trinity, the Principal of St. Mary Hall, the Warden of Keble, Professor Burrows, Professor Rolleston, Professor Heurtley, R. Sawyer, Esq., Canon Ellison, the Rev. Canon Ridgway, the Revs. H. A. Tyndale, A. M. W. Christopher, Hon. H. Bligh, W. W. Merry, S. Edwardes, G. Noel Freeling, E. Wilberforce, W. H. L. Cogswell, G. H. Gwilliam, W. B. Duggan, H. B. Blogg, M. H. Noel, C. P. Golightly, D. Thomas, West, J. S. Treacher, R. M. Benson, H. A. Harvey, J. R. Wilson, W. Acworth, David Martin, W. A. Spooner, J. Erskine Binney, J. C. Clutterbuck, J. Slatter, J. H. Ashhurst, the Archdeacon of Buckingham, A. W. Poole, G. E. Butt, W. H. Young, North Moreton, W. B. Brown, East Sheffield, &c.; Dr. Richardson, Dr. Lewis, Dr. Giles, Dr. Ward (Warneford Asylum), Mr. Sankey (Littlemore Asylum), Mr. Kimpton, Mr. Dixon, Mr. Ballard, Mr. Pickard Hall, Mr. R. Rae, Mr. W. Wilkinson, Mr. Helyer, Alderman Randall, J. Abbey, Diocesan Agent, &c.

The CHAIRMAN, in opening the proceedings, said—My Lord Bishop, Ladies and Gentlemen—The general object of the present meeting is to consider the best mode of checking intemperance. The special object is to consider the subject from its medical side. It will be for any speakers to advance fearlessly their opinion concerning the value of alcohol as either food or medicine, or as neither, and they will speak either on the one side or the other as seems well to them. The evil of the abuse of alcohol is unquestioned. The amount of evidence which had been collected to prove the extent of misery which is brought on the human race by the abuse of alcohol in various forms is now alto-

gether absolutely overwhelming: a misery so great, that to use the impressive words of an impartial and entirely scientific witness not long since gone to his well-earned rest, namely, Professor Parkes, of Netley, a man whom to know at all were to admire, whom to know well were to love, and whose loss has cast a dimness over some of the brightest hues of scientific life and society in this country—'If alcohol were unknown half the sin and a large part of the poverty and unhappiness in the world would disappear.' It was entirely unnecessary, therefore, to occupy their time in considering the extent of this social evil; indeed, it might be doubted whether the recital of it did not at the present moment tend to provoke opposition among those who had not studied the subject, and in this, as in most great questions, the ignorant are, numerically, the chief part of society. Dr. Latham, a man whose opportunities as a physician were of the largest, made a pregnant remark fully thirty years ago. He enumerated the terrible diseases which alcohol produces in the human frame, and he sums them up as a pathologist. He speaks of the 'extensive deposits of cartilage and bone within the arteries, the hæmorrhages from the mucous surfaces, cellular effusions, granulated kidneys, augmented bulk and capacity of the heart, and a poisoned and corrupted blood.' He would just remark that this being a Conference summoned by desire of the Association, he held himself entirely at liberty, on behalf of the speakers, as Chairman to speak freely on medical subjects. Now, Dr. Latham further says:—'The habits, the necessities, the misfortunes, the vices of men in society, contain materials for the inquiry, and for the statistical systematizing study of physicians, fuller, far fuller of promise for the good of mankind than pathology itself.' Had Dr. Latham been only what is called a philanthropist, and not a great pathological physician, these words might not have much force. But he was a great physician, and at the close of his life he says:—'Great as I had thought the material evil, I find the source of the evil and the moral result of it to be in my estimation far greater still.' In other words, he expands with terrible force the idea that where Cure is impossible, Prevention is the sole hope of mankind. He would not, however, detain them—indeed the Chairman should not detain a meeting from its main work—further than to make a remark on two objections which had been made to him personally concerning a gathering of this kind, and as they were plausible, he thought they ought to be exposed. The first was that the National Church should not organise itself to combat this evil. They say it is late in the field, and should not enter into other men's labours. It certainly was not the part or duty of a plain English layman to defend unasked the Church of his Nation. He had better appeal to the Parable of our Lord as to the Eleventh Hour, supposing that were applicable. For his own part he thought it inapplicable and unnecessary, but that at all events need not be now discussed. It is quite sufficient, it seemed to him, to take the far higher and truly Christian ground, and say, 'The National Church with new energy springs up to aid in the great work of the people, and, on the broadest basis it can find, it seeks to stamp out the flood of sin and misery which growing populations, and what is too fondly called an increasing advance of civilization, seems to entail on our fellow-men.' (Applause.) The other objection to the principle of this

Association, which included, as he understood it, all who were willing to take part in assisting to check the acknowledged evil of intemperance was that the total abstainer, and those who insisted on the right of a temperate use of what they esteemed to be the gifts of God and of Nature, should from self-respect on the one side and the other decline to co-operate. This argument again seemed to him to be opposed to the whole tenor of our Lord's teaching and example—(applause)—to the spirit of the Parable of the Good Samaritan—to the doctrine that he who is not against us is on our part—and to the elaborate argument of St. Paul as to things offered to idols. He thought both these objections, the only two he had heard against a gathering of this description, must be absolutely disposed of on these broad grounds. And at all events, in this meeting the sole aim was the statement of ascertained Facts, and the discovery of pure and scientific Truth. Clinical observation had done much, observation in this and other countries had done much, physiological experiment had ascertained many facts. The deductions that could be made from even contradictory statements were worthy of their best attention, and should receive, and would receive, that ventilation and sifting which an age of critical discussion and enquiry both promoted and demanded. To listen to such facts, and to bring such criticisms, they were now to-day called by the authorities of this Association. Dr. Richardson had undertaken to deliver an address to them. Of his scientific reputation he need not before this cultivated audience speak. He had made numerous experiments, as they knew, and researches into alcohol from a scientific point of view. His lectures on that subject had received at the hands of the scientific world of Europe and America the fullest consideration. He had done much to make the nation at large reflect on what was attainable and possible in sanitary science by the remarkable paper which he read at Brighton last year, and which has been more recently published, on the construction of a sanitary city. No document was ever more worthy of public attention on what is attainable in Preventive Medicine. To-day he would deliver anew his latest convictions concerning the evils and remedies of intemperance, and he had no doubt that all that fell from him would receive their most respectful attention. After his address, which would assuredly furnish many topics for consideration, he trusted they might be favoured with the opinion and experience of various of his medical friends and colleagues who surrounded him in the Theatre. He would only, in conclusion, say that in venturing to take the chair on an occasion of this kind he simply seemed to himself to be discharging a plain duty in his office of Regius Professor of Medicine. He had not thought it becoming in him to express, and he had not expressed, any positive opinions on the subject. He was there only to aid as a plain Englishman the thorough discussion of a terrible question, and that being his conviction with regard to the true character of intemperance, he hoped they would not be favoured—and on behalf of his profession he thought he might undertake to say that they would not be favoured—with unnecessary anecdotes bearing on the sensational side of the subject. He hoped we all felt that this terrible curse, the moral curse and the physical destruction which at all points, and to some extent in every part of society, followed the abuse of

intoxicating drink was a subject far too grave for discursive platform oratory. Silently and peacefully his profession had endeavoured to prevent the evils which it could not cure. It was too late to throw it in their teeth when a constitution was ruined and life shortened. It was too late to call on them to cure disease which they had implored them to prevent. It was unfair to look for advice from his profession as to the cure of disease which the State, Philanthropy, Christianity, the Church, and those who believed in the religious progress of the human race, ought to have stamped out, and never allowed to come under the dominion of the physician. (Applause.) Dr. Richardson was unavoidably detained, but would be there presently; and meanwhile, although in some respects departing from the immediate plan of this particular meeting, he would venture to ask Mr. Ernest Wilberforce, whose name and character, and attention to the subject, were so well-known to them all, to say a few words by way of introduction to Dr. Richardson's address. Mr. Wilberforce had been placed near a great population, that of Liverpool. He knew on the moral and religious side of the subject, as well as on the side of physical deterioration, the full magnitude of this mischief, and he thought he should probably consult the wishes of this large assemblage if he reserved to Dr. Richardson the advantage of opening the purely medical side of the question. Meanwhile, they would have their hearts attuned to that by the more general statement of one who was as able as any one that could be found to show the wisdom, as well as the necessity, of a gathering of this kind in this Sheldonian Theatre. (Loud applause.)

The Rev. E. R. WILBERFORCE was requested to address a few remarks to the conference on the general question. When he went to Liverpool he knew very little of this question, and comparatively nothing of the vast evils caused by the consumption of strong drink. His eyes were opened by what he saw. From a perusal of the chief constable's report it appeared that there were very nearly 25,000 cases of arrests for drunkenness in 1875, about half the cases being those of women. Of course there was a great deal of drunkenness that did not come under the eye of the police at all, and a good deal that they did not take cognisance of, for their instructions were only to arrest those who were hopelessly drunk without the power of locomotion, or those who were creating a disturbance. Many of the cases thus reported were those of juveniles. The death-rate of Liverpool in 1874 was only exceeded by that of Madras, and its people spent in pawnshops and public-houses £72,000 a week, or nearly £4,000,000 a year. The average age of the population in Liverpool all round, was only twenty-two years, owing in a great measure to the fearful mortality amongst children. In one year seventy inquests were held upon the bodies of infants who had been overlaid by their drunken mothers. Nor was the drunkenness of Liverpool confined to its poorer classes. It was even to be found in many of the homes of the rich, and were he to tell what he knew to be the truth, he feared that so incredible would the narrative appear that it would not be believed. He rejoiced that the Church of England was now beginning to take part in the temperance crusade. Four years ago there were 700 abstainers among

her clergy, but there were now something like 3,200. (Cheers.) Many others who were not abstainers were doing earnest work, and temperance societies were spread all over the land. Four years ago the annual income of the society was £700, and now it was about £7000. He hoped that afternoon that the medical gentlemen who spoke would not overlook the question of the use of alcohol by those in health. Let them tell the conference how to preserve that health, and what the use of alcohol would do with regard to it. Personally he must say that he was in every sense better since he became an abstainer. He now believed with Sydney Smith that the abstainer was heavier in his body, certainly heavier in his purse, clearer in his head, and lighter in his heart than the moderate drinker. He held that they were at perfect liberty as Christians to use or to abandon strong drink, but he wanted an authoritative statement from the medical gentlemen present as to the benefit or otherwise of alcohol in a state of health. He could only say that there were many persons in his parish who had been engaged in laborious occupations all their lives, and who stated to a man as the results of many years' experience that they were better able to perform their duties as abstainers than as drinkers. In conclusion, the speaker testified to the great harmony which prevailed between the abstainers and non-abstainers whilst working on the basis laid down by the Church of England Temperance Society.

THE FOLLOWING ADDRESS WAS THEN READ BY

BENJAMIN W. RICHARDSON, M.D., F.R.S.

Suppose it were possible for every one in this large assemblage to say with all truthfulness while recasting the experiences of life, 'I know of one particular agent or thing which has directly killed one person whom I know. The human being thus slain had the slaying agent under his own absolute control. He need not have touched it unless he had willed so to do, and he would never have felt any want for it if he had not been trained to feel that want.'

Suppose this audience, as an English audience merely, were enlarged until it included all who might fairly form an audience capable by experience and years and capacity of mind to make a correct statement on what they had thus clearly and definitely seen! Suppose every one of them could say, 'I too know that the same agent has killed one person who lived in my circle of acquaintance,' so that taking us in combination in the span of our lives, which may fairly be included in thirty years, the fatal effects of the said agent have been witnessed by ten millions of observers!

Suppose we could listen to a foreign voice speaking to us from across the Atlantic, and could hear it on the authority of an official census return declare, 'For the last ten years this one agent has imposed upon the nation' (The United States) 'a direct expense of 600,000,000 dollars: an indirect expense of 600,000,000; has destroyed 300,000 lives: has sent 100,000 children to the poorhouses: has committed at least 150,000 people into prisons and workhouses: has made at least 1000

insane: has determined at least 2000 suicides: has caused the loss by fire or violence of 10,000,000 dollars' worth of property: has made 200,000 widows and 1,000,000 orphans!

Suppose, returning to our own country, we were to discover that amongst those unhappy persons who fill our asylums for the insane two out of three were brought there owing to the direct or indirect effects of this destroyer. That amongst the paralysed who sit or lie there day after day until inevitable death takes them away,—all of them already in the shroud of a living death, toneless, speechless, helpless; existing only by their mere negative part,—nine-tenths are brought to the condition in which we see them by the direct or indirect effects of this one destroyer!

Suppose we entered the cells of our prisons and amongst those we met wearing out their lives in solitude, shame, and misery, so that the noblest of all that is human, *work*, sank the victim into a sense of deeper degradation, and as we stood we heard the voice of the most scientific scholar that ever graced the judicial bench of England since the days of the illustrious Chancellor Bacon, saying, as the voice of our Justice Grove lately said, that the most potent influence for securing these incarcerations and for placing the miseries before us in the terrible positions we see them was this same agent!

Suppose we could at the present moment see before us passing in sad panoramic display some of the broken-heartedness of this still unhappy country. Tortured women undergoing torture, or listening, with palpitating hearts, and with their children scared and hidden away, for the dreaded footsteps of him whose faintest sound ought to be the joy of their expectant lives. Could we see all the weeping mothers and fathers hoping against hope for the reformation of their children, mourning a loss that the grave even will relieve,—loss to truth, honour, self-respect, affection, duty, honesty, every virtue in which parents find new life in their offspring. Suppose, seeing these things in their unutterable vastness, we could say they are the work of one and the same destroyer!

Suppose we could day by day keep under our observation for one year the thousand depôts in which this agent is stored up, and from which it is dispensed, in million potions a day, to smite and to slay young and middle aged and old, rich and poor, deluder and deluded, polluted and polluting. Could we watch the entrance of death into each of those centres of distributing death, and discover that out of them the marauder tore by the throat one hundred and thirty-eight to one hundred of his other victims elsewhere, and seeing this fact could recognize that death, more than just, acted on the sellers of the agent through the thing sold!

Suppose we took into our consideration that the capital which is invested in this destroyer represents in the British Islands alone the sum of £117,000,000 sterling; that the duties paid in one year amount at least to £30,000,000 of money; that each taxpayer who has an income of £500 a year pays £31 towards this imposition whether he avail himself or not of the means to injure himself by the product of the imposition!

Suppose we knew of two classes of people who were seeking, in forestalment of calamity to their families, to insure their lives, and that the distinction into classes lay simply on one matter; a certain class B

habitually subjected itself and a certain class C did never subject itself to this particular substance. Suppose it were found in respect to these applicants that class B showed a mortality of seven per cent. below the calculated average of life, and class C a mortality of twenty-six per cent. below that average: that from two bonuses, or returns from amount of premium paid, class B recovered thirty-four per cent., class C fifty-five per cent.: that dealers in the particular agent under review were hardly admissible at all into class B, and that their vocation adds a mortality of two out of three compared with those of class C.

Suppose in passing through our hospitals for the cure of the sick the physician in attendance were to name all the forms of disease there, and were to say, as he might honestly, these names are very different in kind and seem to denote very different maladies, gout, paralysis, albuminuria, apoplexy, delirium tremens, enfeebled heart, eczema, epilepsy, consumption in the phase of that disease at least, liver disease or cirrhosis, dropsy,—to say nothing of other maladies under dispute as to their origin: yet these names do truly indicate no more than various forms of disease originating in one agency, to which those afflicted have been directly or indirectly subjected!

Suppose it were possible, after this general survey, to be able to cast up the scenes of misery represented in such varying disguises, and to prove that they are all the work of one common enemy of mankind, should we not hesitate almost in fear, which familiarity itself would not utterly conquer, as we asked ourselves.—Is it really true? Is there such an enemy, such a power, such a bona fide devil in our midst?

The facts must stand for themselves in all their terrible reality. There is such a devil though in polite language he is not called so. He assumes various names. The learned, owing to his infinite subtilty, a subtilty as refined as the impalpable powder with which ancient ladies of the East dressed their hair, the learned call him *alcohol*. The unlearned call him *beer*. The savage calls him *fire-water*. The rollicking scholar calls him *wine*. The slangster calls him *B. & S.*, or *cocktail*, or *gin sling*. Gentle lips that ought to know less of him and more of botany call him too often *cherries*. We will call him to-day, because of his subtilty, and because after all the term defines him best for our purpose, *alcohol*.

In this audience it is unnecessary for me to go over again the details of proofs of all the charges that have been made against this subtle agent. He has been arraigned for them all over and over again: he has been proved guilty of them all over and over again. Yet hath he always escaped scot-free and continued his marauding, kept together his retinue and defied his enemies. Paid his servants in their own coin and his own, making them obey, killing them as they obeyed, and stretching out his empire over their graves. Men imprinted his brand on the offspring they have raised, whether the offspring approved or loathed the badge of his service.

WHY THE ENEMY EXISTS.

The startling question hereupon faces us, why is this subtle enemy thus allowed to go free? He is not recently discovered as an enemy. Not at all. Solomon and the good race of preachers who take his lead detected

him and have continued with the wise man in denunciation of him. The Esculapians from the first have detected him, and with a few fluctuating periods of complacency and dalliance, have run him down. The law-makers have denounced him in all ages.

And yet he lives !

There are two reasons why this enemy survives and flourishes, which reasons are personal to men. I mean by this that they belong to man individually according to his likings and his beliefs. These are primary reasons because personal. There are other reasons which have sprung out of the personal and have slipped into the rule of what is called political necessity. These are indirect reasons, and they rest exclusively on the direct. They hold therefore, notwithstanding their immense practical importance, a second place. They would speedily be set aside so soon as the first came under the control of the majority of the nation, and they may even now be brought under correction with a view to the removal of the errors they sustain. I am aware that many of those who are most earnest in the cause of temperance look entirely to the removal of the primary reasons by which alcohol retains its place as the grand remedy, and certain it is that until those primary reasons are removed the greatest reform in legislative action can be but of slight and temporary service. It seems, however, to me, that sufficient has already been done in the way of influencing the education of the people towards the truth to enable the legislature, backed by the large and increasing constituency which holds to temperance, to begin to invent some practical measure which shall put suppression of the common enemy under certain forms of legal recognition, so that the moral reformer may at least have a clear course instead of being impeded, as he is at this time, by the protection which the law systematically extends to the evil he would root up. I will return to this topic again at a later stage of my discourse. Let me recur now to the primary reasons by which the use of alcohol, with all its attendant calamities, is sustained.

AN INBRED ENEMY.

There is an old proverb which says that what is bred in the bone will never come out of the flesh. The proverb is not quite correct anatomically. It should have said what is bred in the brain will never come out of the flesh. Even then it would have been imperfect physiologically, and should have read what is bred in the brain will never come out of the flesh in one generation. The proverb, with all its faults, is impressive and expressive. It tells correctly enough that those errors which are engrafted into men are not readily eradicated. In this question of alcohol and the errors of life and taste depending upon it, the saying is signally correct. In communities which take wine, as a general custom, there exists a system of breeding the custom, which is not dispelled in one nor completely in two generations. This is a peculiarity of the action of alcohol on the nervous organism, or on that essence of the nervous organism, subtler than the mere nerve matter, into which impressions are instilled, that the impressions remain and are transmitted like features and taste, and disease, from the parent to the child. Of the nature of this inscrut-

able design by which attributes and faculties, evil as good and good as evil, pass from the born to the unborn, I pretend to know nothing beyond the fact. But to me it always seems, as I know it must to you, one of the most solemn passages of human knowledge. To know that even in this world we none of us ever die. That our acts, our virtues, our failures pass on. That our physical conditions, appetites, passions pass on to other generations. That the forms we mould ourselves to, by acts original to ourselves, pass on to other generations. That habits and passions we subdue in ourselves are subdued, as far as we are concerned, in other generations that spring from us.

Therefore in relation to the influence of this destroying agent alcohol, one of the primary reasons for its continued use amongst us is that the desire or passion for it has been transmitted to us by our predecessors. If there were no such foundation of appetite and passion for it, any one of the arguments against it to which I have adverted were sufficient to destroy its potency. With such foundations all the arguments and as many more equally cogent were of no direct avail with the masses that are influenced.

Happily the virtues are transmitted not less readily than the errors of mankind; and so in considering this primary cause of the continued power of the destroyer, we are not driven as men without hope to doubt our efforts for the destruction of the power. Our efforts, in every instance where they succeed in the present, are multiplied so many times into the future that a generation or two will plant a new order and make what is to us the most difficult portion of our labour the easiest part of the future emancipation.

In every difficulty it is always best to look the gravest *fact* in the face, and I put this difficulty in view at once, that all may see and detect for themselves the mode of removing it. Detect that its removal is certain, and some day rapid, if the course of reformation be steadfastly pursued : detect also that patience only is necessary, and that time spent is not time lost, but is time employed in the most useful way for securing the harvest of good results, the success that will assuredly follow.

FALSE BELIEFS.

The second primary cause for the continued power of alcohol in the world is falseness of knowledge as to the effect of the agent upon the body and the bodily powers. From the hilarity produced by wine and which was originally conceived to be its only virtue, 'to make glad the heart,' there has crept into the habits of men the desire to be made hilarious at every meal. From this desire has come the practice of introducing wine or other spirituous drinks at certain meals regularly; and from this, again, by association of wine and its allies with food, has come the idea that the hilarity-provoking stimulant is also a food. To this view science herself, in opposition to common sense experience, gave some years ago her sanction. It was a sanction slowly rendered and never perfectly rendered. It was a sanction founded on analogy of physical action of alcohol outside the body, its property of preserving from putrefaction and its burning, rather than on any correct observation as to its true physiological action

on living animal organisms. But there is no denying that it was sanctioned, and that it has done for a time an incomparable wrong. It has given a reason for the habitual use of alcohol which is, I repeat, a primary reason. It suggests not only that alcohol is a food but that it is a necessary food. A food man cannot do without. A sustaining food which in this overworked day is more requisite than ever.

A few persons whose eyes are opened to the fallacy of this reasoning use it, notwithstanding, because in their hearts they are infatuated with the liking for alcohol and are glad to find any excuse that shall minister to their own inclinations. The majority of persons whose eyes are not opened to the truth believe in this reasoning absolutely and act upon it with implicit honesty. These often tell you with perfect candour they regret as much as can be regretted the evils they cannot fail to recognise, but, say they, of what use is it deploring evils that spring from a necessity. I have never yet met with a legislator who declined to legislate against alcohol who did not express as the reason for his action this theory of necessity. I never yet conversed with a member of my own learned profession, who was in favour of alcohol, who did not assign the self-same argument. I never yet spoke with a clergyman on that side the question who did not follow the politician and the doctor, and adduce not only their reasons but their authority.

It is the duty of us who have seen the light on the question of temperance, to deal plainly and faithfully with the reasoning on this point of necessity. That false doctrine eradicated the power of alcohol for all its evil is undermined. That left in doubt the power of alcohol to continue all its evils remains practically untouched. I believe, therefore, that from the position I now by your favour occupy, I cannot do better than tackle this reasoning again on scientific evidence; and, on the ground that:—

'Truth can never be confirm'd enough,
Though doubts should ever sleep'—

venture in a few sentences to repeat what I have spoken on many public occasions on this vital matter.

ORIGINAL RESEARCHES ON ACTION OF ALCOHOL.

In so speaking, I cannot I think do better or simpler, than narrate the individual method of inquiry by which in an independent way I was brought, without being able to avoid the result, to the conclusion I submit to you, viz.: that the popular prevailing idea that alcohol as a food is a necessity for man, has no basis whatever from a scientific point of view.

Let me say then, that at the commencement of the labours which brought me to the conclusion above stated, I had no bias in favour of it or preconceived opinion. Like many other men of science I had been too careless or too oblivious of those magnificent labours which the advocates of temperance for its own sake, had, for many previous years, through good report and evil report so nobly and truthfully carried out. But for what may be called one of the accidents of a scientific career I might, to

the end of my days indeed, have continued at least negative on this question. The circumstance that led me to the special study of alcohol is simply told. In the year 1863 I directed the attention of the British Association for the advancement of Science, during its meeting at Newcastle, to the action of a chemical substance called nitrite of amyl, the physiological properties of which I had for some months previously been subjecting to investigation. My researches attracted so much attention I was desired by the Physiological section of the Association, over which Professor Rolleston most ably presided, to continue them, and in the end, was enabled to place in the hands of the physician one of the most useful and remarkable medicinal agents that has ever been supplied by the chemists for the relief of human suffering. The success of this research led the Association to entrust me with further labours, and in the course of pursuing them other chemical substances nearly allied to that from which I started came under observation. Amongst these, was the well-known chemical product, which the Arabian chemist Albucasis first distilled over from wine, which, on account of its subtilty was called alcohol, which is now called ethylic alcohol, and which forms the stimulating part of all wines, spirits, beers, and other ordinary intoxicating drinks.

In my hands this common alcohol and other bodies of the same group, viz. methylic, propylic, butylic and amylic alcohols were tested purely from the physiological point of view. They were tested exclusively as chemical substances apart from any question as to their general use and employment, and free from bias, for or against, their influence on mankind for good or for evil. The method of research that was pursued was the same that had been followed in respect to nitrite of amyl, chloroform, ether, amylene, and other chemical bodies, and it was in the following order. First, the mode in which living bodies would take up or absorb the substance was considered. This settled, the quantity necessary to produce a decided physiological change was ascertained, and was estimated in relation to the weight of the living body in which the observation was made. After these facts were ascertained the special action of the agent was investigated on the blood, on the motion of the heart, on the respiration, on the minute circulation of the blood, on the digestive organs, on the secreting and excreting organs, on the nervous system and brain, on the animal temperature and on the muscular activity. By these processes of inquiry, each specially carried out, I was enabled to test fairly the action of the different chemical agents that came before me.

In the case of alcohol, tried by these tests, I found then a definite order of facts, the principal of which I may narrate. It was discovered that alcohol being a substance very soluble in water would enter the body by every absorbing surface: by the skin, by the stomach, by the blood, and by the inhalation of its vapour in the lungs. But so greedy is it for water that it must first be diluted before it can be freely absorbed. If it be not so diluted it will seize the water from the tissues to which it is applied and will harden and coagulate them. In this way it may even be made to coagulate the blood itself, and in some instances of rapid poisoning by it, the death has occurred from the coagulation of the blood within the vessels or in the heart.

The quantity required for absorption in order to produce distinct effects is from twenty to thirty grains of the fluid to the pound weight of the animal body, in those who have not become habituated to the influence of it. In quantities that can be tolerated it influences the blood, making that fluid unduly thin or coagulating it according to the quantity of it that is carried into the circulating system. It acts on the blood corpuscles, causing them to undergo modifications of shape and size, and reducing their power of absorbing oxygen from the air. It changes the natural action of the heart, causing the heart to beat with undue rapidity and increasing the action, in extreme instances, to such a degree that the organ in an adult man is driven to the performance of an excess of work, equal to the labour of lifting twenty-four foot tons weight in twenty-four hours. In some instances the number of extra strokes of the heart produced by alcohol has reached 25,000 in the twenty-four hours. The effect on the respiration follows that on the heart and is correspondently deranged. On the minute bloodvessels, those vessels which form the terminals of the arteries and in which the vital acts of nutrition and production of animal heat and force are carried on, alcohol produces a paralysing effect in the same manner as does nitrite of amyl. Hence the flush of the face and hands which we observe in those who have partaken freely of wine. This flush extends to all parts, to the brain, to the lungs, to the digestive organs. Carried to its full extent it becomes a congestion, and in those who are long habituated to excess of alcohol, the permanency of the congestion is seen in the discoloured blotched skin, and, too often, in the disorganization which is planted in the vital organs, the lungs, the liver, the kidney, the brain. On the digestive system alcohol acts differently according to the degree in which it is used. In small quantities it excites the mucous membrane of the stomach to moderate over secretion, and from this circumstance some think that it assists digestion; in still larger quantities it impairs the secretion and weakens digestion, producing flatulency and distension of the stomach. Organic change of the structure of the liver is very easily induced. The same is true in respect to the action of the agent on the kidney. On the nervous system alcohol exerts a double action. There are two nervous systems in man and in the higher animals, viz., the vegetative or mere animal nervous system, and the cerebral and spinal nervous system which receives the pictures of the external universe and is the seat of the functions of reason and the suprer mental faculties. On both these systems, vegetative and sensory, alcohol produces diverse actions all of which are perverse to the natural. At first it paralyses those nervous fibres of the organic and vegetative system which control the minute vessels of the circulation. By this means a larger supply of blood is driven by the heart into the nervous centres, and nervous action from them is first excited and then blunted; the brain is in a glow, and that stage of mental exhilaration which is considered the cheering and exciting stage of wine-drinking is experienced. After a time, if the action progresses, the opposite condition obtains; the function of the higher mental centres is depressed, the mere animal centres remain uncontrolled masters of the intellectual man, and the man sinks into the lower animal in everything but shape

of the material body. In the lower animals a state of actual madness accompanies this stage, and in man sometimes the same condition is also witnessed. Not only are the brain and nervous centres thus paralysed, the other vital organs of the body which have their fine minute vascular structures governed by the nervous current, the lungs, the brain, the kidney, the lining or mucous surface of the digestive system, the various serous surfaces of the body, these also through their weakened vessels are overcharged with blood just as the skin is when you see the body of the drinker flushed with wine, or to use another simile, just as you see the surface of the body glowing red after the vessels have been long stricken by cold, and are relaxing under the application of heat.

In this manner, by the course of experiment, I learned step by step that the true action of alcohol, in a physiological point of view, is to create paralysis of nervous power. It acts in this manner precisely as I had seen nitrite of amyl and some other chemical bodies act.

Previously to the performance of these researches some distinguished physiologists had shown that mechanical division of the nervous cords which govern the vascular supply of parts led to flushing of those parts with blood. I traced a little later that the local paralysing action of extreme cold was practically the same process, and was therefore followed by the same effects; and now in these inquiries into the influence of alcohol I traced out an exact analogy, nay, I may say in all but the method, an identity of principle. If we could temporarily divide with the knife all the nervous supplies of the vascular structures of the body we should temporarily produce the same conditions as are produced by such diffusive escaping agencies as nitrite of amyl or alcohol. We should set the heart at liberty to work against reduced resistance; we should make the vessels of the skin and other parts intensely injected with blood; and if we repeated the process many times we should induce structural changes of parts, organic diseases, structural diseases such as are produced in those who suffer from excess of alcohol over long periods of time. In brief, my experimental inquiries led me to discern, without original intention of such discernment, that the power for which alcohol is esteemed;—its power as an agent to liberate the heart, to excite the nervous centres and influence the passions; to afterwards congest the nervous centres and dull the passions; to make men violent and mad, then imbecile and palsied:—is, all through, one power in various stages of development and degree: a power not exercised for elevation but for reduction of all the functions of life.

Pursuing the plan I had set forth for the general method of investigating the action of chemical substances on animal bodies, I was led to study the influence of alcohol on the animal temperature. The prevailing view on this subject had been, that alcohol increased and maintained the animal temperature. This view, it is true, had been challenged. Dr. Aitkin had challenged it many years ago in the first volume of the Literary and Philosophical Society of Manchester. Beddoes had challenged it: the late Dr. Cheyne of Dublin had challenged it, Dr. Carpenter, Dr. Lees and some others, whose precience had been far more acute than mine, had challenged it. In perfect candour the inference had been drawn by many observers that alcohol reduces the

animal temperature; that those who are exposed to extremes of cold are best fortified against cold when they abstain from alcohol and depend on warm unstimulating drinks; and that the popular idea on the subject was wrong. At the same time it is certain that the impressions of these eminent scientists were not so confirmed by direct and absolute experimental research as to satisfy the world in general of their correctness. For my own part I was ignorant, and that is why I sought for certain knowledge. To the research I devoted three years, viz. from 1863 to 1866, modifying experiments in every conceivable way, taking advantage of seasons and varying temperatures of season, extending observation from one class of animal to another, and making comparative researches with other bodies of the alcohol series than the ethylic or common alcohol.

The results, I confess, were as surprising to me as to any one else. They were surprising from their definitiveness and their uniformity. They were most surprising from the complete contradiction they gave to the popular idea of alcohol as a supporter and sustainer of the animal temperature. It will be borne in mind that I have described the flush of alcohol, the first effect of it in its first stage when into the paralysed vessels the larger volume of blood is poured. In that stage, that is to say, in the earlier part of it, I found an increase of temperature. This increase, however, was soon discovered to be nothing more than radiation from an enlarged surface of blood; a process, in fact, of rapid cooling, followed quickly by direct evidence of cooling. After this I found that through every subsequent stage of the alcoholic process, the stage of excitement, of temporary partial paralysis of muscle, of narcotism and deep intoxication, the temperature was reduced in the most marked degree. I placed alcohol and cold side by side in experiment and found that they ran together equally in fatal effect, and I determined that in death the great reduction of animal temperature was one of the most pressing causes of death. I showed that this effect of alcohol in reducing the animal temperature extended through all the members of the alcohol group of chemical substances, and that with increase of the specific weight of the spirit the reducing effect was intensified.

Thus by particular and varied experiment it was placed beyond the range of controversy that alcohol, instead of being a producer of heat in those who consume it, and therefore a food in that sense, is a depressor, and therefore not a food in that sense. The earlier scientists were confirmed in their peculiar views to the letter, and I honour their originality and truth as heartily as I appreciate the privilege of having been the first to apply the modern and more accurate system of thermometric inquiry to test and as it turned out to confirm and establish their observations and practices.

From the study of the action of alcohol on the temperature of animal bodies I proceeded next to test it in respect to its effect as a sustainer of the muscular power. Here I had the experience of the trainers of athletes to guide me,—an experience which was strongly against the use of alcohol as a supporter of muscular power and endurance. I preferred, however, to test again minutely the direct effect of alcohol on muscular contraction, the result being the determina-

tion that, with the exception of a very brief period during the earlier stage of alcoholic flushing, the muscular force, like the temperature, fails under its influence. In a word, I found that the helplessness of muscle under which the inebriated man sinks beneath the table, and under which the paralysed inebriate sinks into the grave, is a cumulative process beginning so soon as the physiological effect of alcohol is pronounced, and continuing until the muscular enervation is completed.

SUMMARY OF RESEARCH.

What I may call the preliminary and physiological part of my research was now concluded. I had learned purely by experimental observation that, in its action on the living body, this chemical substance, alcohol, deranges the constitution of the blood; unduly excites the heart and respiration; paralyses the minute bloodvessels; increases and decreases, according to the degree of its application, the functions of the digestive organs, of the liver, and of the kidneys; disturbs the regularity of nervous action; lowers the animal temperature, and lessens the muscular power. Such, independently of any prejudice of party or influence of sentiment, are the unanswerable teachings of the sternest of all evidences, the evidences of experiment; of natural fact revealed to man by experimental testing of natural phenomena. If alcohol had never been heard of, as nitrite of amyl and many other chemical substances I have tested had never been heard of by the masses of mankind, this is the evidence respecting alcohol which I should have collected, and these are the facts I should have recorded from the evidence.

This record of simple experimental investigation and result respecting the action of alcohol on the body were incomplete without two other observations which come in as a natural supplement. It will be asked, was there no evidence of any useful service rendered by the agent in the midst of so much obvious bad service? I answer to that question, that there was no such evidence whatever, and is none. It has been urged, as a last kind of resource and excuse, that alcohol aids digestion, and so far is useful. I support, in reply, the statement of the late Dr. Cheyne, that nothing more effectually hinders digestion than alcohol. That 'many hours, aye, a whole night, after debauch in wine, it is common enough to reject a part or the whole of a dinner undigested.' That those who abstain from alcohol have the best digestions; and that more instances of indigestion, of flatulency, of acidity, of depression of mind and body, are produced by alcohol than by any other single cause. This excuse removed, there remains none other for alcohol that is now even assignable except that temporary excitement of mind which even on the assumption of temporary jollity and happiness is one of the surest ultimate introductions to pain and sorrow. But if there be no excuse favoured by scientific asking on behalf of alcohol, there is sufficient of appalling reason against it superadded, when the pathological results of its use are surveyed upon the physiological. The mere question of the destructive effect of alcohol on the membranes of the body alone would be sufficient study for an address on the mischiefs of it. I cannot define it better indeed than to say that it is an agent as potent for evil as it is

helpless for good. It begins by destroying, it ends by destruction, and it implants organic changes which progress independently of its presence even in those who are not born.

EXPULSION OF THE ENEMY.

I would venture for a few moments to pass from narrative of fact to invite your attention to the question of the means that are before us for expelling an enemy that is so subtle and destructive, from our homes, from our nation, from the world. The time has come when that expulsion is the duty of every man who is bold enough to feel that he is his brother's keeper, not less than the keeper of his own interests and desires. The period of silence on this subject has passed: the period of ridicule has passed: the period of fear has passed: the period of united common work amongst all classes of society against the common foe has come! As I touch this question, I ask myself what has influenced me to take part in this cause? The answer is. The facts I have observed in regard to the action of alcohol on the animal body: the facts of its utter uselessness: the facts of its deadly evil. I argue thereupon that if I, who had no bias against this agent, who was taught indeed in schools of science and from lips I revered that the thing was a necessity of life, if I, thus trained, can be moved by new light to see the actual truth and to be led by it, so can others, so can all except those who are so enslaved that the fetters have become an inseparable part of their existence. I argue further on this, that the primary duty of all who would join in the war of expulsion of the common enemy is to teach, proclaim, demonstrate the same facts as I have to-day, with such other persuasions as may be adapted to the mind, and I may say to the heart, of him who is being taught. Specially would I urge that the young should be thus impressed: that in every Board School of England there should be a class beyond the three R's, a class where the claims of temperance should be impressed on the scholar with all the force of scientific instruction. If from this conference this one suggestion could find its way into practical working we shall not have met to-day in this great seat of learning in vain. The next advance towards the great reformation we have in view is to place side by side with the propagation of truth, the example of truth. I have done something in this crusade by my work as a teacher; but that would be badly supported indeed if it were not seconded by the practice of that which I have taught. To say to a man who is wavering, who believes the teaching to be right and who yet fears to trust it, I, the teacher, can do without the agent you trust on, can work better without it, can live better without it, can live much happier without it, can feel that what I have thought to be a necessity would now be an incumbrance,—to say this is to be strong up to the very heart, is to feel your argument strung up to the height of tension and every word an arrow that goes home. To be able to say less only than this is to speak in doubt, is to experience what the Lord Protector so truly defined, 'that what is of doubt is not of faith and is sin in him that doth it.'

THE MODERATION FALLACY.

This thought leads me to add a word on what is called the teaching of moderation in the use of Alcohol. I believe the Church of England Temperance Association is divided by two lines, one of which marks off total abstainers the other moderate indulgers. I have once been bitten by the plea of moderate indulgence. Mr. Worldly-wiseman with his usual industry tapped me on the shoulder as he does every man and had a long and plausible palaver on this very subject. If I had not been a Physician he might have converted me. But side by side with his wisdom there came fortunately the knowledge which I could not, dare not ignore, that no mere moderate man is safe either in the counsel he gives or in the practice he makes for himself. Furthermore I learned as a physiological or perhaps psychological fact that the attraction of Alcohol for itself is cumulative. That so long as it is present in a human body even in small quantities the longing for it, the sense of requirement for it is present, and that as the amount of it insidiously increases so does the desire. On the other hand the entire freedom from the agent checks entirely the desire. He therefore who is actually emancipated is free: but he who has a single link of the tyrant on his sleeve is still the slave on whom more links are attached with an ease that gives no indication until the limbs are bound.

LEGISLATION AND THE PERMISSIVE BILL.

A man of science trusts naturally to the development of truth and progress out of natural growth of scientific labour, and feels but secondary sympathies with the mere legislator who so often in the present grossly empirical phase of his labour legislates in darkness and in backward movement towards ages darker than his own. My mind therefore has been more directed to the educational part of the alcohol question than to the legislative. Yet I could not close this address without recurring a moment to what I have already said, viz. that the time has come when the Parliament of this country must in earnest legislate for the suppression, at least in part, of the national folly and disgrace, the raising of national funds from national degradation. It cannot surely be long now that a free government will extract its resources from the graves of its people. It is impossible to ignore these truths, and so legislation is forced on the attention, and we who are in the forward ranks as teachers must guide the uninformed to that legislation which we consider wisest for the moment, most practicable, most possible. For my part, at the present time, while keeping up perfect freedom to accept any other means that may be suggested or may occur to one's self, I see nothing better in the way of suggested legislation than the Permissive Bill. Were I in the House of Commons I should in absence of a better and more comprehensive measure give it my most earnest support. It would, as the law of the land, do more to remove temptation than anything else I can conceive possible, and what this means let all who are influenced by temptation declare. Those who are not influenced need not vote; they will do no harm.

CONCLUSION.

In summary; the grand effort for us all to make is to stand firm, in precept and example, by what is right and to proclaim the right without dismay or fear. Once while the thunder of a great conqueror was playing on a doomed city, there stood in that city in calm repose a poor scholar speaking to a few earnest students, words, which, far mightier than the cannon of the conqueror, penetrated his nation, lifted it up, and helped to make it what it now is, the conqueror of the conqueror. Let every son of temperance plant these words in his mind and heart and he too shall conquer the conqueror.

'To this am I called to bear witness to the truth. My life, my fortunes are of little moment: the results of my life are of infinite moment. I am a priest of truth. I am in her pay. I have bound myself to do all things, to venture all things, to suffer all things for her. If I should be persecuted for her sake, if I should even meet death in her service, what great thing shall I have done? What but that which I clearly ought to do?' (Loud applause.)

Professor ROLLESTON: I was very much complimented by the reference Dr. Richardson made to me. I must not, however, set on foot the game of bandying compliments and paying Dr. Richardson in kind, but I may say that though I have heard him at Newcastle and many other places, and have always listened to him with great attention and pleasure, I have never listened to him with greater pleasure than I have upon the present occasion. Neither do I think that Dr. Richardson has ever spoken to better purpose, nor has he ever laid out the results of his labours before an audience more worthy of them. But, Mr. Chairman, as you have said very properly, this is a conference, and I have not forgotten what fell from Mr. Wilberforce, who wanted to know what the doctors on both sides had to say. I can readily believe that my brother doctors would, by their ordinary sense of politeness and courtesy, be reluctant to contradict a stranger: consequently, I will give them the opportunity of contradicting me, who am no stranger to them at all. I am upon the same side as Dr. Richardson—(cheers)—and whatever they wish to say of a harsh kind they may direct to me, and I will bear it as best I can. What I have to say is just this: that if you want to attack a great evil you must see and take note of the strength of the opposing forces. (Hear, hear.) Now what is the true position of those who advocate alcohol? This clearly and beyond all doubt is true that from the very commencement of history down to the present time you have had people indulging in alcohol. At meetings held, with other audiences of a different kind, I have often had the pleasure of speaking upon the temperance question, and have found them greatly sympathetic with me. They were not highly cultivated and educated, but those people have felt where the shoe pinches, for poor people suffer more from drink than their richer neighbours. That argument was expressed in the words of the great Hungarian, 'The instinct of the million is wiser than the wisdom of the wisest.' Such is the strength of the position—the position of alcohol. One of the great progresses that have been made in thought in my time is that that

great acting principle is not to be over-respected, and that there is no reason why we should not if desirable set aside old-established practices. If the world is to progress we must set that principle aside when it stands in direct opposition to the reasonings of science or to the conscience of mankind when mankind really looks more closely into the matter. But is this experience so universal as it is assumed to be by the persons I have just made myself the spokesman of? I do not think so. Let us take a simple case. Quite lately on the Great Western Railway very hard work was done, that of laying new rails, and it was accomplished by working men who had no access to alcohol at all, but who worked upon a Scotch preparation called 'skilley.' I will give you one or two more arguments. Can you get through really good and hard work of anything that does require more force than battling against cold?—heat being just one of the forms of force. You can all find it out. Take 'Kane's,' or 'Hayes's Arctic Voyages,' and read of sailors who went through their work without a drop of alcohol at all*. The voyages were trying to all the muscles and nerves, and they took nothing but tea and coffee to do it upon. Let me mention another case in point. You may find it in the life† of that good man Commodore Goodenough. He found that he was obliged to become a teetotaler that he might preach teetotalism and abstinence with greater effect. I do not mean to say that a person is obliged to do that. I do not drink these various liquors, and yet do not call myself a total abstainer, any more than I call myself a total abstainer from opium, quinine, and strychnine. They do not suit me, and hence I do not take them. It is not with me a matter of principle, but a matter of interest, and I do not take them. Commodore Goodenough took another view of the matter, and very greatly to his credit is it that he did do that. I will mention now another case, that of a person who flourished some thirty or forty years ago—a canon of St. Paul's—Sydney Smith. He was a man of considerable 'go' and force, and had a pen that wrote things that were exceedingly good, and powerful for good at the time that he wrote them. Now I believe I am correct in saying that Sydney Smith was a total abstainer. He found, I suppose, that he did better without alcohol, and so he left it off. Now I think that such facts as these, and there are plenty more such which I could furnish, do really show that you can do work, and do hard work, of hand and brain, without taking alcohol at all. I have seen the poorer Turks doing exceedingly hard work, and they are teetotalers. Drunkenness is the commonest vice amongst the upper-class Turks that you can imagine; but it is surprising the heavy work the poor half-starved Turks, too poor to be drunkards, can do. Their amount of muscular power and endurance, fighting for the worst causes, and under some of the worst leaders that ever poor soldiers had to do with, is a wonder to all acquainted with the facts. It is a mere fact of science that virtue is the cheapest thing in the world, and vice the

* Kane, *Arctic Explorations*, vol. i. p. 87, note 20, vol. ii. p. 16, 17, p. 94. Hayes's *Arctic Boat Journey*, p. 272. *Illustrated London News*, Jan. 3, 1863.

† See 'Journal of Commodore Goodenough,' p. 79.

dearest, that people cannot indulge in vice without paying for it, either in this world or in the next, and perhaps paying for it heavily in both. I have nothing else to say upon this matter except that I most sincerely sympathise with this movement, and welcome help from all sides, from the Church of England or any other church, or from any other body. I only wish I had power and time to help the Church of England Temperance Society, but I confess that all my operations are confined to one single line of operations, and that is the Permissive Bill line, and I hope you will all join that. Just let me add that if you want to get hold of the matter, you must look at it as a natural history problem. Nothing is more true than that 'one half of the world doesn't know how the other half lives.' If any person wants to know what drunkenness is, let him get upon some charitable association's committee, and have a share in distributing the funds, and he will find that it is often not the first, the second, the third, the fourth, the fifth, the sixth, or the seventh case, but it is, perhaps, the tenth consecutively that is attributable to drink, and to nothing else. Statistics are of little importance until you come face to face with the facts, and then make the effort of putting yourself in the place of the poor people concerned. That is the great thing—put yourself in their place, and then you will really see the necessity for help, for action, and for holding no parley with delay.

Dr. LEWIS, of Oxford: I have been called upon to address you probably because it has been my fate to have 10,000 persons under my care during nearly a quarter of a century, and perhaps because I am one of the oldest practitioners here. I think, having heard what has been said here by the able speakers who preceded me, and also having some very considerable experience in reference to this destroyer, this soluble sinner, this devil, as it has been called, I certainly can bear witness to its dire effects. But it is not upon that question I would wish to address you. I think we can take all that for granted. We know the evil of drink. I do not think it is necessary here to decide between the moderate drinker and the abstainer. I do think there is room enough for both sides, and that there should be a greater approach between these two parties to stem the torrent of evil. The floodgates are up and the torrent is upon us, and I think this is a time, as Dr. Richardson has told us, when we ought all to put our shoulders to the wheel, sink little differences, and do the very best we can to meet this evil. But the question is: How is this evil to be met? We all know we can't do away with thirst, but if we don't partake of alcohol there are other drinks, but they are unfortunately not so handy. Hardly any one partakes of whisky now-a-days who does not allege that his doctor ordered him to do so. Now to such persons I say that the doctor is wrong in most cases. As regards legislation, we may all in our respective positions favourably influence that. I am glad to see that Birmingham has taken a forward step in making use of the laws we have. Birmingham has picked out five of her best policemen, and pays them handsomely for watching the different public-houses and tracing all the crime connected with them. These policemen have no other work than to watch public-houses, and to report and to tabulate all the incidents that they may see. I think Oxford and other towns may follow that

example with very great advantage. There is another thing which we might do, and towards which I would cheerfully subscribe £20. I think we must get some drinks which are palatable, but at the same time not intoxicating. Such a drink we have not got. The Americans in this respect are more inventive than we are. They have a variety of drinks other than those which are called 'Samson with the hair on,' and 'Samson with the hair off.' (Laughter.) Would it not be possible by the time the next annual meeting recurs to have essays prepared and a prize awarded for the best on the subject of a palatable non-alcoholic and easily-to-be-had drink. If a few gentlemen would help pecuniarily, and subscribe towards a sum to be offered as a prize for the best essay, we might be in a position to do something more practical than we can do to-day. I do not dislike a glass of port, but Oxford would not be the worse if it never saw a glass of port wine again. We must begin by setting the lower orders a better example, for we have too many wines upon our boards. I have often too many myself—(a laugh)—but I intend to have fewer. I am not a total abstainer as you will have gathered. I have been to France and seen the vast vineyards of that country, and certainly if all were to be abstainers, I do not see what is to become of them. It is not very likely, considering the produce of the vintage, that you will be able to do away with it, nor do I know that I would wish to do so. I think there is a great deal of good in the juice of the grape, and perhaps it is what the human economy requires. Unfortunately so few of us are able to control ourselves when we have gone a certain portion of the road. I leave it for others to say whether you can't tempt us into other lines. A remark made by Colonel Loyd Lindsay struck me very much. He said that there was more drunkenness in one regiment of the British army than he saw in the two armies that are combatting in the neighbourhood of Alexinatz.

The Rev. H. A. TYNDALE stated that a son of his, a clergyman who was not in a good state of health, and suffered from a feeling of fainting when he laid down to sleep, had been recommended to take a glass of brandy and water at night before retiring to rest. Mr. Tyndale wished to ask the medical gentlemen present what would be their opinion on such a case.

Mr. SANKEY, Medical Superintendent of the Oxford Lunatic Asylum, said: My experience has been considerable, but it has not been quite of the character described by Dr. Richardson. Alcohol, in one form or another, does injure the brain, without a doubt, and I only see its effect in the last stage. I am now speaking simply of the poor, for I have nothing to do with any other class, save almost by accident. My patients all come from the poorest homes, and a good many from the workhouse. Now there can be no doubt that the effect of alcohol upon the brain is cumulative. In fact, it is so upon the whole body. It produces general palsy; and when it has gone so far as that his case is a bad one. In special forms of disease its effects are very peculiar indeed. The effect, as regards the brain, is exactly what Dr. Richardson says—that it absorbs water whenever it can get the chance. Disease of the brain

in the form in which I see it—paralysis—is what is commonly called softening of the brain. It is in reality the very reverse, for alcohol having that greed for water produces a brain at last which is heavier, and tougher than when in its normal condition by alteration of structure of the vessels which ought to carry nourishment. Hence it becomes unadapted for the purpose for which it was made. How we can get to the root of this evil is certainly a very difficult question. I think Dr. Lewis's suggestion a very good one; and if we could get persons to write essays of the kind he mentioned, I think we should meet again here next year with some far more practical result before us. The movement has my best wishes.

Dr. WARD: Dr. Richardson mentioned in regard to lunacy that two out of three of the cases were caused by alcohol. Now, let me say, in the first place, that the cases we have to deal with are those in which alcohol has been abused, and therefore, as I suppose that nobody will deny that alcohol is a poison, those will scarcely come under the question. Then, again, in many cases where alcohol is the cause of lunacy, it is not a primary cause; but you will find along with the drinking propensity some hereditary taint in the system, which promotes a weakness of the nervous system, and renders people peculiarly liable to fall into excess, and in those cases drinking has been the excess into which they have fallen. Thus in many of the cases that are traced to alcohol you cannot justly put that down as the cause.

The Rev. W. ACWORTH, Vicar of South Stoke, said: My reverend brother has mentioned the case of his son, who could not sleep, and was recommended to take brandy and water. He asks what one ought to do in such circumstances. As no one else has answered the question, perhaps I may be allowed, as a teetotaler of many years standing, to say what happened to myself.

I had the charge of a parish of nearly 30,000 souls, and, as an example to my flock, I signed the pledge. Two hundred of them that very week did the same; and many of them became sober, serious, and religious men. Not long after this, my health broke down from over work; and I called in a physician—the late Dr. Conquest of London—whose name will be known to our medical friends here, for he told me that, for some years, his practice brought him in not less than 4000*l.* a year. He said my pulse was 'below par'; and ordered me to take two or three glasses of port wine a-day. Now, here was I, a pledged teetotaler,—a sort of champion of the cause! what would be the result if it were known that I had ceased to be an abstainer? I represented this to the doctor, who replied, 'Oh! If you are inclined to take physic, I can give you physic that will answer the purpose equally well.' So he wrote a prescription which I got made up for a shilling; and at the end of a fortnight he said I was all right. If I had begun to take the port wine, I should probably have been taking it to this hour.

One word more as an old magistrate. In going down to my grave there is nothing that presses so heavily on my heart as the heedless way in which I used to give licences, without even inquiring whether they were wanted or not; and I shall never rest content until the people

have this power placed in their own hands. Having come from Bath to attend this most important meeting, I feel very grateful to our much respected Chairman for having given me an opportunity of making these remarks.

The Rev. W. W. MERRY asked if there was what he termed a growing 'consensus' of opinion on the part of medical men to uniformly dissuade their patients from the use of alcohol? When so many conscientious practitioners recommended it, it seemed difficult to know what to do. Dr. Rolleston classed alcohol with medicines of a very poisonous kind, but were doctors gradually coming round to the point that the temperate use of alcohol should be dispensed with? Until there was some such consensus of opinion he feared that there would still be two sides to the question.

The CHAIRMAN did not think it possible for a single person to give a full answer to the question just put, and even if it were possible it would after all only be the conscientious professional opinion of an individual.

Dr. GILES said that they were brought back almost naturally to the question put by Mr. Wilberforce as to the possibility of doing away with alcohol, and not using it at all medically.

Mr. WILBERFORCE reminded the speaker that his question was as to the use or otherwise of alcohol in common cases of health.

Dr. GILES: I think I may answer that question, not only for myself, but also for the major part of my profession—that we can do without alcohol. (Cheers.) But are we justified in ordering alcohol in certain cases of disease? Now I will put it to any medical man whether in advanced stages of typhus fever he cannot give port wine with the greatest benefit, and when hardly anything else will suffice. Ammonia, for instance, may do certain things, but there is not the support in it that there is in good port wine. Cases of typhus fever had been entirely removed by no other means than port wine.

The CHAIRMAN reminded the meeting of Mr. Wilberforce's distinct question, and said he must keep those present fairly and plainly to the point, or otherwise members of the conference would be certain to draw an erroneous conclusion.

Mr. DIXON said that for the past twenty-five years he had abstained from all alcoholic drinks, and found that he could treat maladies commonly supposed to need such drinks more successfully without than with them. With regard to those who are in health but fear they might suffer from giving up their wine and beer, he could most confidently assure them they had everything to gain and nothing to lose by total abstinence; it only requires the will to do it, to live as if no such drinks existed, and determine if they could not live without them to be willing to die, and if they could not die without them to be prepared to live forever; the present distress of our church and country demand nothing less of her sons and daughters.

Mr. OLIVER: Can I recommend habitual drunkards altogether and at once to abstain?

Dr. RICHARDSON, who, like the remainder of the speakers, was with difficulty reported, owing to the prevailing darkness, said he would reply to some of the questions which had been raised. First, he would correct the impression of his medical brother as to what he said in his paper regarding the origin of insanity. He did not say that alcohol was the direct cause of two out of every three cases of insanity, but that it was the direct and indirect cause, including those arising from hereditary taint. He was then alluding more especially to that sort of insanity which followed upon general paralysis. He did not think his friend would dispute that in that particular class of cases two out of three arose in the way described, and he might almost give a larger proportion. As to a consensus of opinion, he could not declare any view on the subject; but this much he could say, that the medical profession was giving to alcohol a fair and impartial investigation. Twenty years ago medical students were taught that there was some distinct virtue as food in this agent. It took time, research, and experiment to dislodge this view, and now all men were listening for further truth on the subject. If it were ultimately decided that alcohol was useful only medicinally, then naturally its proper place was on the druggist's shelf along with other medicines, and those who prescribed it should send their patients there for it. As to taking stimulants suddenly away from the drunkard, no harm could possibly result. Nothing but the greatest good would follow. The experience of prisoners in gaols was indisputable on this point. They were amongst the most debauched and drunken of mankind, and womankind too, but though he had made it the subject of special inquiry, he had as yet failed to find a single case where the withdrawal of alcohol had acted harmfully. The contrary was the fact. (Cheers.)

The CHAIRMAN heartily congratulated those present on the success of the meeting, and that they should have lived to see such a one in that theatre. (Hear, hear.) He would say, that such a meeting, for such a cause, whatever might have been the reason, would, when he first became professor, thirty years ago, have been simply an impossibility, and he would undertake to add that when they now desired to discuss that great subject there it was equally impossible that the use of the theatre should have been declined, or that it should be thought otherwise than an admirable and desirable use by those to whom they applied for it. He should next like to tender his sincere thanks to those of his professional brethren who had favoured them with their presence there that day. For himself, he had simply discharged, whatever his personal opinions might be, his duty as Professor of Medicine, and it would have been a dereliction of duty had he declined. Thirty-years ago that was not a subject which would have brought together so large a number of the medical profession to assist in their deliberations. Any person of his age knew that at that time they were taught by experienced teachers that alcohol was thought necessary for not only persons in sickness, but for a large proportion of persons in health. For his own part, he never had

believed that argument. Since he first became an undergraduate, he had drunk wine only in very small quantities. He had come of late years to certain conclusions on the subject, which would be unpleasant, he dare say, to persons of extreme opinions, one side and the other. But Science marched with careful steps. He had come to the conclusion, from such observations as he had been able to make during many years, that a large proportion of healthy persons except under special circumstances were not so well if they took any form of alcohol as they were if they took none. He did not say whether that was a correct conclusion or not, but that was his own opinion on the subject. He thought ordinarily that healthy persons were not so well if they used any form of alcohol as if they used none, and that conviction was so impressed on his mind that at ordinary dinner parties, especially of young men, it was simply painful to him that custom, mere custom—these poor youths being really ignorant on the question—made it necessary for them to drink a quantity of beer or wine, which, he thought, as far as it affected them at all, was injurious to them. One word with regard to the relation of the subject to disease. It was perfectly well known to every ordinarily instructed member of his profession that the opinion of the profession had undergone a very great change on the subject in two ways within thirty or forty years. Twenty-five years ago people were taught that they could scarcely give enough in many forms of disease. It was equally certain that students of the present day felt that that opinion was exaggerated and mischievous. It had come to be a matter of extreme anxiety to the best instructed members of the profession as to what was the precise dose which ought to be given in many conditions. But as for the old opinion that people in health, and living in ordinary conditions, could not live or work without wine, it was an opinion no careful or thoughtful physician thought of maintaining, and if he did, he should be very happy to battle the subject out with him. That might be an opinion which would be unsatisfactory to some. He should of course have the right of his convictions, and should express them to the best of his ability whenever the proper time arrived. Dr. Parkes, who had devoted much time to the subject, and had given up alcohol for years, spoke in his book with the most careful moderation on the question of whether alcohol in moderate quantities did or did not do harm. He was most careful not to commit himself to saying that alcohol in moderate doses did do harm. He would not say so, although for fourteen years he never tasted it, and therefore had ample experience and a right to speak. Above all it was of extreme importance just now that there should be no exaggeration on this matter. Opinion was moving entirely one way, and every time he heard exaggerated statements on the subject he was sorry, not for the sake of what he must call opponents, but for the cause of temperance. They wanted no exaggeration in the matter. The curse to mankind, as well to those living as to those unborn and about to be born, was ample enough. God knows the misery of it was inconceivable. They wanted, therefore, no exaggeration in the matter, for, depend upon it, whatever might have been the case at the time when intemperance was a common thing in the upper classes of society, when even members of the medical profession moving in what were called the upper classes of society did what they would have done if

they had been gentlemen of any other profession, had more wine than they should have had—all that was a thing of the past. He agreed with what had been said by Dr. Richardson and Professor Rolleston about the Permissive Bill, that as far as was yet known it was the best thing they could have, only to a certain extent. He was not at all certain that it was the best thing. He could easily imagine that opinion might progress in this matter, as it had with regard to the Permissive Bill, and that it might be found that a Prohibitory Bill of some kind could be devised. He was by no means sure, perhaps it would not be in his lifetime, because after thirty years of active work he could not expect many more; but it was by no means impossible that younger men there would see a prohibitory bill of some kind. Documents he had received from Canada had satisfied him there was much to be said for Prohibition, as there is much to be said for Permission. In this he might congratulate the meeting that the subject would never rest till that course had been found which was best adapted to promote, in moderation and wisdom, the end they had in view. (Applause.) He concluded by congratulating them on the harmonious character of their meeting.

Canon ELLISON said they ought to thank the Vice-Chancellor for the use of the Theatre; the chairman for taking the chair and putting the business of the meeting before them in the satisfactory way he had, and conducting it so well; and Dr. Richardson for coming there, and giving up his time to instruct them. Their obligation was of no common kind. When he (Canon Ellison) wrote to Dr. Richardson to ask him to come to Oxford, the reply was that his time was so taken up that he had had to refuse requisitions from various places, but he thought that Oxford was such a very important centre that he felt bound to make an exception in its favour, and undertook to prepare a paper for them. (Applause.) He hoped he would feel that the result would justify the exception he had made in coming to this great centre of light and influence, and he did not doubt for a single moment that all the scientific instruction which he had condensed into his paper would radiate from that meeting throughout the whole of the kingdom and bear fruits, which it was utterly impossible for them at the present moment to exaggerate. (Applause.)

The propositions having been carried with acclamation, the meeting, which had been for some time almost in total darkness, except for the light given from two candles brought in to the reporters, terminated.

The above Report of the Medical Conference is mainly from the 'Oxford Times' Nov. 4, 1876, with the exception of Dr. Richardson's paper which is from his own MS. All the speeches have been revised by the speakers.

APPENDIX.

THE Oxford Diocesan Branch of the Church of England Temperance Society held its annual meeting on Monday Oct. 30th. The meeting was preceded by a medical conference, in which Dr. Richardson, of London, delivered a long and most important address, demonstrating by scientific evidence the injurious effects, &c., of alcoholic beverages, and advocating the Permissive Bill as a measure that would do more to remove intemperance than anything else. As we have before had occasion to remark, these views form no part of the programme of the Church of England Temperance Society, and it is just possible that their promulgation in a conference held in connection with the Society is calculated to stir up acrimonious feelings. But if the Church of England Temperance Society takes up the Permissive Bill, the Church will have to consider the national interest in the matter. The Church of England Temperance Society will find the clergy everywhere as willing as they are able to support it; but on this condition, that in supporting the Society they are not pledging themselves to vote for the Permissive Bill, or for the Maine Liquor Law in England. Whether some amendment of the law which provides a punishment for persons who, being drunk are disorderly, would prove beneficial, is another question; but it must be remembered that drunkenness is a sin, an offence against morality, as gluttony is, and that disorderly conduct is a crime, an offence against society. If this distinction was better understood the duties arising from it would not clash as they too frequently now do.

We have expressed ourselves freely on this subject not only because we desire to aid the Church of England Temperance Society, but because we are satisfied that in no other direction can the Church work more beneficially than in promoting habits of temperance. It is a work which falls specially within the province of the clergy. From their vocation they can speak with more authority than laymen. Their religious character gives them power over their parishioners which, if not all that it once was, is far greater in the rural districts than it is commonly supposed to be. The respect and reverence for religion which the labouring classes entertain may be sentimental, and in many instances, having regard to their conduct, hard to explain; but still it is ground which admits of cultivation. Preaching alone, however, will not cultivate it. Why have Nonconformists been in advance of Churchmen in the Temperance mission? Simply for this reason, that they use other means, and use them also for their own denominational purposes. There should be a branch of the Church of England Temperance Society in every parish. The lay organisations, though they have done good service in reclaiming drunkards, are not in a position to deal with the

vice as, standing upon her parochial system, the Church of England is. But the clergy must go outside their churches; and, above all else, they must exercise the influence which they possess with discretion, so as to strengthen it. Let the Church of England Temperance Society bear steadily in mind that conciliation makes more converts than compulsion, let it continue to temper its zeal with moderation, let it be widely understood that its object is to promote temperance, to contribute to the happiness and well-being of the labouring classes, and we venture to say that its efforts will eventually be crowned with success. But we fear that it might as well attempt to establish vegetarianism as to put an end to the liquor traffic. The temperance question cannot, we fear, be settled by legislation only, but the end which the legislature may be unable or unwilling to compass, may be attained through the beneficent and comprehensive agency of the Church.

In this sense, the report of the Council of the Oxford Diocesan Branch of the Society is most satisfactory. We learn from it that in some of the parochial branches 'British Workmen' public-houses and Working Men's Clubs and Institutes have been opened, and that they are all doing really useful work in providing working men and others with cheap and wholesome refreshments, and with a place where they can spend a pleasant hour when their day's work is done. Also that in connection with some of the branches, Bible classes, singing classes, drum and fife bands, night schools, and penny banks have been established, and that coffee barrows have been started. Last year we urged upon the Society the absolute necessity of making provisions of this kind for the great class that use public-houses as their clubs, and in using them abuse them. The aim of the Society should be to impart to men the education which will enable them to resist temptation and to study moderation in all things. The Temperance question is a social as well as a medical question. But, in the interest of the Church of England Temperance Society, what we are concerned about is that it should steer clear of crotchets, and commend itself to the support of the nation on sound, broad, and indisputable principles. There are moral appliances in the truths and in the living power of Christianity which can be brought to bear successfully for the prevention of drunkenness and its terrible consequences. The State can do nothing beyond the will of the people, and unless the people are sober, it is very difficult to make them so by Act of Parliament. By seeking the only remedy for intemperance in legislation, we shall rob it of all its natural repulsiveness, and give it the favour and strength which it does not now possess. Every true patriot is bound to bestir himself to deliver the nation from the yoke, politically and socially, of the vendors and consumers of strong drink; but many streams of influence are needful to form a strong current of public opinion.—*Oxford Times*, Nov. 4th, 1876.

OPINIONS OF EMINENT MEN.

'Alcohol removes the uneasy feeling, and the inability of exertion which the want of sleep occasions; but the relief is only temporary. Stimulants do not create nervous power; they merely enable you, as it were, to use up that which is left, and then they leave you more in need of rest than before. It is worthy of notice that opium is much less deleterious to the individual than gin or brandy.'—*Sir B. Brodie*.

'It would not be too much to say that there are, at this moment, half a million homes in the United Kingdom where home happiness is never felt, owing to the cause of tippling alone, where the wives are broken-hearted and the children brought up in misery.'—*Mr. Charles Buxton, M.P.*

'There is scarcely a crime before me that is not, directly or indirectly, caused by strong drink.'—*Judge Coleridge*.

'If you wish to keep the mind clear and body healthy, abstain from fermented drinks.'—*Sydney Smith*.

'My opinion is, that neither spirit, wine, nor malt liquor is necessary for health; the healthiest army I ever served with had not a single drop of any of them, exposed to all the hardships of Kaffir warfare at the Cape of Good Hope, in wet and inclement weather, without tents or shelter of any kind.'—*Inspector-General of Hospitals, Sir John Hall, K.C.B.*

'I never suffer ardent spirits in my house, thinking them evil spirits. If the poor could see the white livers, and shattered nervous systems, which I have seen as the consequence of drinking, they would be aware that *spirits* and *poison* mean the same thing.'—*Sir Astley Cooper*.

'The death from alcoholic poisoning in Great Britain is prodigious; it may be set down at something like one-tenth of the whole death-rate of the country.'—*Dr. Lankester, F.R.S., Coroner for Central Middlesex*.

'My experience is that, in treating cases of fever without alcohol, we lose only 5 per cent: but 25 per cent with alcohol. In cases of delirium tremens, when the patients were isolated and cut off from all resources for spirits and liquors, I have never lost a case.'—*H. Munroe, M.D., F.L.S.*

Professor Gairdner, of Glasgow, proved conclusively that the rise in the death-rate of typhus patients bore a definite proportion to the increase of the doses of alcohol administered, and *vice versa*.

Dr. Murchison, in his *Treatise on the Continued Fevers of Great Britain*, states 'while it has been shewn by statistical data that the systematic treatment of fevers with large quantities of alcohol is not remarkable for its success, there is abundant evidence that typhus may be treated successfully with little or no alcohol.'

'I have no hesitation in saying that nine-tenths of the cases of convulsion which occur in children are caused by the effects of alcohol on the brain, taken from their mothers; and this is the great cause of the excessive mortality among infant children.'—*Dr. Bennett, of Winterton*.

'Beer is not taken as a beverage for its nutritious ingredients, but, wholly, for its alcohol.'—*Professor Playfair*.

'Beer, wine, spirits, &c., furnish no elements capable of entering into the composition of the blood, muscular fibre, or any part which is the seat of the vital principle. 730 gallons of the best Bavarian beer contain exactly as much nourishment as a five-pound loaf or three pounds of beef.'—*Baron Liebig*.

STANDARD WORKS

ON THE

TEMPERANCE QUESTION.

Convocation Report on Intemperance (Province of York), 3s.

Convocation Report on Intemperance (Province of Canterbury), 1s.

CANTOR LECTURES.

A Course of Lectures on Alcohol, delivered before the Society of Arts, by B. W. RICHARDSON, M.A., M.D. 1s.

To be had at the Offices of the Church of England Temperance Society.

Temperance Bible Commentary, by Dr. F. R. LEES and the Rev. DAWSON BURNS, M.A. 6s.

London: S. W. Partridge and Co., 9 Paternoster Row.

The Temperance Reformation and its claims upon the Christian Church, by the Rev. James SMITH, M.A. 6s.

London: Hodder and Stoughton, Paternoster Row.

The Physiology of Temperance and Total Abstinence. An examination of the effects of the Excessive, Moderate, and Occasional use of Alcoholic Liquors on the Human System. By William B. CARPENTER, M.D., F.R.S., F.G.S. 1s.

London: George Bell and Sons, George Street, Covent Garden.

Our Coffee Room. By Elizabeth R. COTTON. 3s. 6d.

London: James Nisbet and Co., 21 Berners Street.

Clerical Experiences of Total Abstinence. Edited by the Rev. THOS. ROOK, M.A. 1s.

London: W. Tweedie and Co., 337, Strand.