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ITS FRIENDS AND FOES.



ALPHABET

THE LETTERS AND WORDS

OF THE ENGLISH LANGUAGE

ALCOHOL:

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THE following article, which I read with admiration at the time of its first appearance, I thought might be reprinted to advantage at the present time. The Maine Liquor Law, *cunningly devised to evade the first principles of personal freedom*, sets an example of hypocrisy which our *enemies* might say was not needed in New England. It entirely overlooks the GOLDEN PRINCIPLE OF TEMPERANCE, and in my opinion *belies* that promise of the Constitution which *provides a Republican government for each State* and, of course, *for every citizen of the United States*. It is vain to expect by laws to eliminate temptation. A well-executed license law is all that can be hoped for in this direction.

B.

ALCOHOL:

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1. *The Fallacies of Teetotalism ; or, the Duty of the Legislature in Dealing with Personal Freedom, and an Elucidation of the Dietetic and Medicinal Virtues of Alcoholic Liquors.* By ROBERT WARD, Editor of the "North of England Advertiser." London, 1872, pp. 415.

2. *Stimulants and Narcotics ; Medically, Philosophically, and Morally considered.* By GEORGE M. BEARD, M.D. New York, 1871, pp. 155.

3. *L'Alcöol, son Action Physiologique, son Utilité et ses Applications en Hygiène et en Thérapeutique.* Par le Docteur ANGEL MARVAUD, Professeur agrégé à l'Ecole de Médecine Militaire du Val-de-Grâce, etc. Paris, 1872, pp. 160.

4. *Du Rôle que jouent les Boissons Alcoöliques dans l'Augmentation du nombre des cas de Folie et de Suicide.* Par M. le Dr. L. LUNIER, Inspecteur-Général du Service des Aliénés et du Service Sanitaire des Prisons de France. Paris, 1872, pp. 48.

5. *The Abuse of Alcohol in the Treatment of Acute Diseases : a Review.* By T. P. HESLOP, M.D. London, 1872, pp. 39.

6. *Second Annual Report of the Board of Health of the Health Department, City of New York : April 11, 1871, to April 10, 1872.* New York.

7. *Second, Third, and Fourth Annual Reports of the State Board of Health of Massachusetts, January, 1871, 1872, and 1873.* Boston.

ALCOHOL: ITS FRIENDS AND FOES.

THE great social question, several phases of which are comprehended in the various works whose titles are prefixed to this article, is one which has the very highest interest for every member of the human family.

There is no question involving the interests of mankind which has not two sides to it; there is none in which these sides are more strongly contrasted than that of alcohol, under which generic term we include, for the nonce, every form of stimulant. In every respect the antithesis is sufficiently striking: here we have a vast source of national revenue, colossal fortunes realized, and very many families supported in happiness and comfort by the manufacture, the sale, and other transactions relating to the production and distribution of alcoholic drinks; and there we have the deepest degradation and misery produced by their excessive consumption. The political economist — always more or less of a utilitarian — aghast at the immensity of the material interests at stake, yet fully aware of the evils of our present system, approaches the drink question in the wariest manner; temporizes, and looks to others for a solution of the difficulty, fearful of committing political suicide by bringing on himself a social avalanche which might be induced by the slightest disturbance of existing arrangements. The social reformer, goaded almost to madness by the degradation and misery around him, ignores every other consideration, and runs amuck at what he regards as the prime cause of the evil, — alcohol, — and would not hesitate to sweep from the earth all concerned

with the production and distribution of alcoholic drinks, out of excessive love and pity for their intemperate consumers. By means of Temperance, Teetotal, and Good Templar Societies he flies at the throat of the consumer; and finding these means not so successful as he desires, he seeks, by what is termed a Maine Law, to control the distribution of alcoholic drinks, — while both of these measures of necessity influence the production of them. If either the Political Economist or the Social Reformer were, in the first place, a Christian, we should willingly leave the whole matter in his hands; but, now-a-days, we have no reformer whose Christianity is not subordinated to one or other of these categories, who is not therefore strongly biassed in one direction or the other, and consequently incapable of guiding us in the right way because he is a partisan of some special panacea which he is bound to support, even though he may have many misgivings as to the ability of the boasted specific to cope with the evils it is vaunted to cure. But we all ought to know that the policy of repression is useless while the human heart remains unchanged. We all remember Nathaniel Hawthorne's tale, entitled "Earth's Holocaust;" how the Washingtonians and Father Mathewites rolled into the blaze all the barrels and bottles of liquor in the world, and how the Devil sniggered in his sleeve (figuratively) at the futility of all the trouble taken, assured that the world would be the old world still, and that, until some means were discovered of purifying the human heart, forth from its foul cavern would reissue "all the shapes of wrong and misery — the same old shapes, or worse ones — which they had taken such a vast deal of trouble to consume to ashes."

Teetotallers, like other repressants, who feel more or less the peculiarity of their position, are strongly aggressive, and, as well as their allies the Vegetarians, talk an infinite deal of twaddle about the perfectibility of man if he would only refrain from alcohol and beef. Both of these classes, however, forget that it was Noah, a just man and perfect in his generation, who first "planted a vineyard and drank of the wine thereof," and was in consequence drunken upon one occasion, as we are informed; while it was as a punishment for his sins that Nebuchadnezzar was condemned to "eat grass as oxen," and under that regimen he very soon shuffled off every semblance of humanity. The same propensities for the flesh-pots and slow poisons have distinguished all Noah's posterity, and

we may well believe that a great deal less harm results from them than some are desirous of making us believe ; for, though

“ Gross riot treasures up a wealthy fund
Of plagues, yet more immedicable ills
Attend the lean extreme.”

And all this we may believe without quite going the length of the famous Lord Hermand, who, according to Lord Cockburn, considered “drinking a virtue. He had a sincere respect for drinking, — indeed a high moral approbation, — and a serious compassion for the poor wretches who *could* not indulge in it, as well as a due contempt for those who could but did not ;” and of whom it is related that when a counsel pleaded before him, in extenuation for his client, that he was drunk when he committed the offence, Lord Hermand, in a paroxysm of virtuous indignation, exclaimed, “Drunk, was he? If he could do such a thing when he was drunk, what might he not have done when he was sober !” — evidently implying that the most normal and most hopeful condition of human nature is one of intoxication. Without holding such extreme opinions, of which in the last century there were many examples, we may well be excused for not believing that alcohol is *per se* the root of all evil, or that Teetotal or Good Templar Societies and a Maine Law are all that is necessary to restrain that flood of iniquity and disease which deluges our beloved country. For we know that “every creature of God is good, and nothing to be refused, if it be received with thanksgiving ;” and we also know that gold, that other root of all evil, may be made a source of much good ; and that the sexual passions, which when unrestrained prove such a frightful source of demoralization, brutality, and disease, are, when well regulated, the origin of all that is loveliest, holiest, and happiest in our domestic relations ; and it would indeed be a strange thing if wine, which we are informed on the highest authority “maketh glad the heart of man,” and which we are expressly enjoined to give to “those that be of heavy heart,” should be the unmitigated evil which teetotalers depict it.

There is scarcely a work which deals with the subjects of death and disease that does not include a table of deaths stated to be due, directly or remotely, to intemperance. In one such now before us — “Report of the Board of Health, New York, 1871,” pp. 200, 201 — they even go so far as to comprehend in such a table “Bronchitis” and “Child-birth” !

The connection between bronchitis and alcohol is inconceivable; while the most probable argument for the latter would seem to be, that, as the beginning was due to the stimulant effects of alcohol, the birth was therefore remotely due to alcohol also. We can suppose no other possible connection between intemperance and child-birth; and it is so remote and inconsequent as to bring to mind the congratulation offered by his ruling elder to a Scotch minister on his return from a trip taken for his health's sake, that they "hadna had a single bastard wean in the parish since he gaed awa'!" Carrying statistics to such extremes is injurious to the very cause it is desired to serve: there is enough of disease and death in the world due, both directly and indirectly, to intemperance, without drawing such a very long bow as that. By-and-by we shall enter more into particulars; at present we are only dealing generally with generalities,—and, as an important part of this, we should like to know where to find a table of the deaths *prevented* by the timely and appropriate use of alcohol. We have no reason to believe our own experience to be exceptional, and in our experience the latter class of cases has far exceeded the former. Partly, no doubt, this may be matter of opinion; but, with the modern accuracy attained in the use of the thermometer and the sphygmograph, there should be very little place left for the play of mere opinion.

We would be the last to deny the influence of the abuse of alcohol in shortening the days of many, although unquestionably we hold that it requires a good deal of abuse to produce this end; and we have no hesitation in saying that the very most has been made of a few unfortunate and prominent instances, those at least equally numerous examples which go to prove the converse being ignored and forgotten. Take, for instance, the gifted author of "Scotch Drink" and his two boon companions, whose names are enshrined in the well-known verses beginning,—

" O Willie brewed a peck o' maut,
 And Rob and Allan cam to pree;
 Three blither hearts that lee lang nicht
 Ye wadna found in Christendie.
 We arena' fou, we're no that fou,
 But just a drappie in our e'e;
 The cock may craw, the day may daw,
 But ay we'll taste the barley bree."

Alas! not long after this was written, the following lines appeared, which are not so widely known, though they possess

a touching melancholy of their own, which makes them not easily forgotten : —

“ The moon still fills her silver horn,
 But, ah ! her beams nae mair they see ;
 Nor crowing cock, nor dawning morn,
 Disturbs the worm's dark revelry.
 For they werena' fou, na' nae that fou,
 But clay-cauld death has closed ilk e'e ;
 And, waefu' ! now the gowden moon
 Beams on the graves of a' the three.

Nae mair in learning Willie toils,
 Nor Allan wakes the melting lay,
 Nor Rob, wi' fancie's witching smiles,
 Beguiles the hour of dawning day ;
 For though they werena' very fou,
 That wicked wee drap in the e'e
 Has done its' turn, — untimely now
 The green grass waves o'er a' the three !”

This is, indeed, a sad picture, and, were it invariably true, would almost suffice to make us all total abstainers : we say *almost* advisedly, for there are many among us who could not become mere water-drinkers without shortening their days as effectually as by the most copious libations. We have no doubt that many humane and beneficent men have injured their health and shortened their lives by a too rigid abstemiousness, voluntarily imposed upon themselves by an earnest desire to do good. We must remember, that, after an ancestral exposure of many centuries to the modifying influences of civilization, many of us are born into the world with constitutions so enfeebled as to be unable to maintain the struggle for existence without all the aids to be derived from stimulating aliments, whether food or drink, and many are, by a proper use of these means, enabled to pass comfortably through a long life, who would otherwise have inevitably failed at the very threshold ; while even those who with better constitutions lead quieter and more pastoral lives, and are not so much exposed to the wear and tear resulting from the anxious struggle of city life, require at least the occasional use of “ wine, which cheereth God and man,”¹ to break the ill effects of that weary monotony which of itself is so often productive of disease, — a fact which renders the melancholy chant

¹ Perhaps it is as well to give the reference to this quotation : Judges ix. 13.

of the Count of Toulouse expressive of no futile apprehension, —

“ Oh dear! what shall become of us?
 Oh dear! what shall we do?
 We shall die of the vapors, if some of us
 Can't find out something that's new,” —

and to prevent which mankind, in all ages and in all countries, have sought out and made use of stimulants and narcotics of various kinds and possessed of divers properties, all of them injurious in excess, yet even the worst of them having uses of its own. The varieties of these stimulants and narcotics are, indeed, extraordinary; we have tea, coffee, chocolate, coca, *maté*, tobacco, wines, spirits and beers in infinite variety, opium, hashish, the “ava” of the Fiji and Sandwich Islands, and the intoxicating fungus of Siberia, — the *amanita muscaria*, etc. These are the names of a few of the best known, but are very far from exhausting the class; every nation having its own peculiar, and sometimes more than one, intoxicant. To some it may seem strange to include tea, coffee, and tobacco with spirits, opium, and hashish; certainly none of the first three are capable of producing the excessive narcotism with which we are familiar as the result of the ingestion of one or other of the last three: but all are narcotic in excess, and the disease and misery produced by their inordinate use is probably not much less. “ ‘ Give me the choice,’ said a physician of my acquaintance, who himself had once been a victim to intemperance in the use of tobacco, — ‘ give me the choice of which I should prefer for a son, the intemperate use of tobacco or of rum, and I should immediately say, Let him be a drunkard; rum is less hurtful than tobacco!’ I quote this as a victim’s judgment,” says Dr. Bowditch; and to our ears no statement could be more significant of the evils arising from the intemperate use of tobacco. King James’s “Counterblast,” virulent though it be, contains no more bitter statement than this. It seems strange to speak so strongly against the weed so loved by Sir Walter Raleigh and by Sir Isaac Newton, — gentle Sir Isaac, who is even alleged, when smoking on one momentous occasion, to have seized the hand of his lady-love with obvious intent to propose; but the necessities of the case were too many for him, and he only used the fair finger as a tobacco-stopper. This may have been for the first time — it is certainly not the last — that love has been extinguished by tobacco!

Death has been the occasional result of trying to learn to smoke; life-long misery has been no infrequent consequence of its attainment. The chains worn by the victim are, however, gilt, and their weight is unknown until he emancipates himself from the vice it has cost him so much to acquire and keep up. We are no vain alarmists; we have read Lizars on "Tobacco" and many other similar one-sided statements in the "Lancet" and other medical journals about twenty years ago, and laughed at the frightful evils said to be brought upon mankind by tobacco. Mumbo-jumbo, or the most atrocious Obi ever invented, was a joke to tobacco; paralysis of the heart or the retina, cancer of the stomach or the tongue, were all, with many other evils, due to tobacco, and, what is even more wonderful, to be cured by "throwing away tobacco forever!" But we keep within moderate and truthful limits when we say that tobacco, though at first it slightly stimulates, yet in the main soothes by its depressing action; and that — apart from the evil influences always excited and occasionally markedly manifested on the genital organs, the heart, and the brain — it invariably has an injurious influence on the digestion; and we know of no votary of the weed who has restrained his propensities within such narrow limits as to escape this constant result, while we have seen very many serious effects consequent upon an immoderate use of tobacco, which we are persuaded we are right in regarding as in our day the most frequent cause of dyspepsia among males, and therefore the most common source of much misery to mankind. Yet there may be worse evils than tobacco; it is questionable whether tea, so often associated with it on village signboards, is not even a greater curse to mankind than tobacco. Shade of illustrious Cowper! who could imagine that in "the cup that cheers but not inebriates" there lurked a poison potent enough to produce even this dire effect? Yet Bowditch says (p. 129): —

A physician who has under his professional charge a large institution for the maintenance of aged persons informs us that the demand among the inmates for stimulus in the form of tea is a matter of constant observation; and he moreover gives it as his opinion that from 20 to 25 per cent of the whole number are *tea-sots*, drinking tea from four to six times daily, and as much oftener as they can procure it. They show the effect of this over-stimulation by increased mental irritability and muscular tremors; also in a greater or less degree by sleeplessness.

The following fact has also come to our knowledge: A domestic, in the family of a friend, appeared at times intoxicated. As it was certain she could not get any of the so-called intoxicating liquors great surprise was caused, until at length the problem was solved by the discovery that the individual drank large quantities of the strongest tea, of which she was constantly sipping.

This statement sufficiently conveys Bowditch's views that tea in excess is an injurious nerve stimulant, and may occasionally become an intoxicant; and in this we perfectly agree. Between the action of tea and alcohol there is a very intimate relation as to their nature, though we admit a considerable variety as to degree. But when we speak of the injurious effects of tea we do not specially refer to its intoxicating qualities; these are only rarely exhibited, and their production may possibly be induced by individual or climatic peculiarities. Dr. Tyler, late superintendent of the Maclean Asylum for the Insane, states that from long experience he is convinced that the tendency of the climate of California is to produce an exhilaration and excitement of the nervous system, — the reverse of that depression which is so well known as the result of our own, — while in higher latitudes the effect of cold in benumbing the faculties is so striking that Captain Parry says he cannot help thinking that many a man may have been punished for intoxication when he was only suffering from the benumbing effects of frost; and he adds that he had more than once seen his people in "a state so exactly resembling that of the most stupid intoxication, that he should certainly have charged them with that offence had he not been quite sure that no possible means were afforded them on Melville Island to procure anything stronger than snow-water," — and we all know how readily some become excited, and even in appearance intoxicated, from causes and under circumstances which have no tendency to upset the equanimity of stronger minds. Having, however, made these concessions in favor of tea, we require similar concessions to be made in favor of alcohol, as we shall afterwards point out.

Theine and caffeine, according to the most recent researches¹, are poisons which act to a considerable extent upon

¹ *Vide* Dr. Alexander Bennett's "Experimental Inquiry into the Physiological Actions of Theine, Caffeine, Cocaine, and Theobromine." *Edin. Med. Journal*, October, 1873, p. 323.

the circulatory system, stimulating, in the first place, and afterwards paralyzing, the vaso-motor nervous system; and this action — even in such minute doses as are generally taken — cannot be without an influence on the circulatory and other systems: hence the palpitation and irregular cardiac action, the muscular tremors, and even the paralyses which occasionally follow even the moderate use of these drinks, and to which, of course, those who abuse them of choice or necessity — as tea-tasters — are specially liable. Add to this vaso-motor paralysis — the result of the theine — the local effects of tannin and hot water, and we have very efficient causes of that dyspepsia which in our day among females has its most frequent source in the inordinate consumption of tea; while hundreds labor under nervous and dyspeptic symptoms, varying in extent and degree, due to a very moderate use of tea or coffee, which act upon them as poisons, even when employed in the most limited quantities. Such individuals are frequently quite unaware of the cause of their peculiar symptoms, and are quite struck with the complete and perfect relief obtained by ceasing the use of tea or coffee. We are now speaking only of the most moderate use of these beverages, and therefore of constitutional idiosyncrasy; but we know of many such individuals — nay, of many families — so constituted, upon whom tea and coffee, and all those so-called innocuous beverages delighted in by teetotallers, act as perfect poisons, and who fatten, thrive, and often do a fair amount of quite average mental work upon drinks which are said to make others either furious or fatuous. To them a Maine Law and Permissive Bill would prove simply torture, unless evaded by medical prescription; but medical opinion as yet is scarcely sufficiently alive to the existence of such idiosyncrasies. It need hardly be said that we fully endorse every word that Dr. Arlidge has said as to the injurious results of the abuse of tea,¹ especially among the females of the lower orders,—an abuse not confined to the Pottery districts, but to be found everywhere; and an evil which is daily increasing, and which is, as he has very properly and only too correctly said, a source of “deterioration of health among the working classes, and a lowered vitality in the rising generation,”—results which are not to be measured merely by the constant presence of chronic

¹ *Vide* also, in regard to this, Dr. Anstie's work on “Stimulants and Narcotics.” London, 1864, pp. 249, 250, etc.

dyspepsia among large numbers of the females of the lower classes, — though that is a never-failing result of the abuse of tea, — nor by the occasional epidemics of scorbutus or allied affections dependent upon the imperfect nutrition of those who diet themselves on bread and butter, and trust to tea for a stimulus; though these have been matters of no infrequent occurrence since 1845, and which, in spite of the very high wages now prevalent, have been perhaps more often observed during the last ten months than at any period since 1845. But though they may be to some extent gauged by the prevalence of diseases of a low type among the laboring classes, they are more accurately to be measured by the puny condition of the rising generation, and the general deterioration of the race of laborers, which causes some to declare that the best of that type have been spirited away by emigration agents. With freer air, more elbow room, and better wages, the race ought to improve and not deteriorate. Take a racing colt at a year old, after months of warm keeping and good feeding, — three or four feeds of corn in the day, — and contrast his bulk of bone and muscle, his spirit and power of endurance, with those of his fellow yearling allowed to gather his scanty living from the herbage of his native plains: those who have never observed the results contrasted could scarcely credit the vast difference between the two. And man is similar in constitution; the old proverb says, “A cow and a countess are alike,” and similar in possessing the power of being improved. “If a man work not,” says St. Paul, “neither shall he eat;” but the converse is equally true and well known. “I send round my clerk,” says a contractor, “when the men are getting their dinner; and those who can’t eat he marks with a bit of chalk, and we send them about their business.” Dire experience taught us this fact during the Crimean war, when our overworked and underfed soldiers died in thousands from disease, and not from the bullets of the enemy. When working at the railway from Balaclava to the camp, ten cubic yards of earth were all that each soldier could remove in a day, his daily rations amounting in all to 40 ounces of solid food, of which but 4.5 ounces were nitrogenous; while the navvies sent over to help them found no difficulty in shovelling out twenty cubic yards, but their rations amounted to 45.75 ounces, of which no less than 5.75 ounces were nitrogenous. How can we expect the race to improve, or even to hold its own upon a diet of

bread and tea? Something must be drunk; water, however palatable, does not supply the requisite stimulus, nor, we may add, nutriment; milk is to a great extent unattainable; and the usual resource is tea or coffee, which do supply the stimulus, but not the nourishment. Hence we have innumerable ailments and a gradual deterioration of race.

“ Firm on his native heath the Caledonian stood;
Prime was his mutton, and his claret good.
‘ Bid him drink port!’ the wily statesman cried:
He drank the poison, and his spirit died.”

But he was a wiler statesman far, and a much more injurious member of the commonwealth, who first set up the cry of what is termed “a free breakfast-table,” — that is, the entire remission of the duties on tea, coffee, and sugar, all the other usual accessories of the breakfast-table being for all practical purposes already free. In regard to this we shall say nothing of the manner in which the reduction of duty upon such articles of general consumption, involving great loss to the community and the necessary retention of an obnoxious income-tax, gives no relief to purchasers of these commodities, as the amount remitted in duty is intercepted and pocketed by the class of middlemen who intervene between the producer and the consumer, because, after a time, trade-competition is sure to remedy this. One farthing per pound on an ordinary ship-load of tea amounts to £10,000, so that a very small fraction of a farthing is an object of competition to large speculators. But what we shall say is this: Is he a wise man, or a beneficent legislator, who seeks to encourage the increased consumption of a stimulant beverage the use of which is already so extensive and so injurious as to be fraught with serious results to a large proportion of the individual members of the present generation, and with the certain deterioration of the race? We trow not, and hold that such legislation has already reached its limits; and this opinion is amply confirmed by the testimony borne by the medical witnesses examined before the recent Parliamentary Commission in regard to the hours of labor in factories. In their Report the Commissioners — Dr. Bridges and Mr. Holmes — observe, generally, that dyspepsia is one of the most prevalent diseases among factory operatives, and is attributable to the excessive use of tea. In his late work upon “Foods,” Dr. Edward Smith has attempted to deal with this part of the subject, and has fully

homologated the opinion that tea may be injurious if taken with deficient food, and thereby may exaggerate the evils of the poor; but his entire want of practical experience is very well shown by his declaration that "his experiments" have not shown that tea is a *poison* to the rich, much less to the poor. What we regard as equivalent to a poison in a diet or a diet-drink is one whose "essential action is to waste the system or consume food, by promoting vital action which it does not support;" and this Smith confesses tea and coffee do. But, apart from this, we unhesitatingly assert that both tea and coffee act as special narcotic poisons to many individuals, though frequently only recognized to have been so by the relief obtained on giving them up.

Since the days of Lehmann and Bœcker tea and coffee, as well as coca, *maté*, and alcohol, have been regarded as *paratriptics*, — that is, as articles whose consumption prevents disassimilation or tissue-waste, and from this point of view might be regarded as useful to the ill-fed poor. But, according to Dr. Smith, even this support to their employment among the laboring classes is withdrawn, for he distinctly states that "tea increases waste, since it promotes the transformation of food without supplying nutriment, and increases the loss of heat without supplying fuel; it is therefore specially adapted to the wants of those who usually eat too much, and after a full meal, when the process of assimilation should be quickened, but is less adapted to the poor and ill-fed, and during fasting." Even from Smith's point of view, therefore, tea is worse than useless as a beverage for the laboring classes. But the whole subject of the actions of tea and coffee on the system is still too undetermined to allow us to reason with confidence on one set of experiments alone. During the last twenty years the most diverse opinions have been enunciated in regard to the actions of tea and coffee. Headland has called them sedatives; Lehmann and others, with more apparent reason, have called them powerful narcotic stimulants. Lehmann, Bœcker, and others have asserted, on the authority of practical experiment, that tea and coffee are paratriptic in their action, — that is, that they retard the process of disassimilation. Smith, as we have seen, opposes this view, which again has been quite recently reasserted by Marvaud. Meanwhile, the actual facts remain the same; whatever may be the cause, — whether the action is paratriptic, or, as Anstie has called it, a peculiar food-action, — all these so-called stimulants, including

many (such as opium, etc.) whose action in large doses is even more highly narcotic, produce in moderate doses the remarkable effect of sustaining prolonged exertion without the use of nutriment in the ordinary acceptation of the term. The most extraordinary of them all in this respect is coca, of which, it is said by Von Tschudi, that an Indian, sixty-two years of age, worked for him (at excavation) for five days and nights consecutively without any ordinary food at all, and with a very short allowance of sleep, and yet at the end of that time was fresh enough to undergo a long journey; and this marvellous result was attained simply by chewing a few leaves of coca from time to time. This remarkable fact is also confirmed in innumerable other cases by various other observers. The moderate use of tea, coffee, coca, tobacco, alcohol, opium, etc. is in every case attended by more or less of this peculiar action, which, however we view it, must to some extent be associated with an arrest of tissue change; and this obstruction to disassimilation may be the cause of "paralysis, torpor, atony, fatty degeneration, and necrobiosis of the cellular elements involved in the acts of nutrition" (Marvaud), and is always conjoined with a tendency to their production: hence the explanation of the occurrence of alcoholism, caféism, théism, and cocaism. Tea and coffee, therefore, are far from being the innocuous drinks they are so generally supposed to be; even in moderate doses they act as poisons to many, while in excess they produce various severe disorders of nutrition, and are, it seems, even likely occasionally to induce those degenerations which are more usually regarded as the result of alcohol alone.

As regards alcohol, the question of its use and abuse is so intimately bound up with the use and abuse of the drinks containing it, that we are apt to have disquisitions on the innocuousness of cider, perry, or wine; or, as in the great Gothenburg controversy, the absolute safety of beer and porter, — with the great injury done to the mental condition, the bodily health, and the morality of those who use what the French especially are so apt to term, in their comprehensive way, alcohol, meaning thereby distilled spirits of various kinds and qualities. We have neither space, time, nor inclination to investigate the properties of all the various compounds containing alcohol, nor to apportion the peculiar merits due to Gladstone's claret and Carnegie's porter in repressing drunkenness; nor is it at all necessary. Apart from flavor, there can-

not be any essential difference in these various drinks, which all owe their peculiar effects to the alcohol they contain; the matter at issue between them, therefore, is mainly one of degree and not one of kind, and may be safely disregarded except in so far as it is brought out in this relation.

In further pursuing this subject we beg most distinctly to state that we fully appreciate and most deeply deplore the moral and social evils which flow from the abuse of alcohol; but while acknowledging this, we see in it no reason for holding that all the ills which afflict mankind are due to alcohol, or that its moderate use is anything worse than a harmless luxury. To this part of the subject we shall, however, by-and-by return; at present we shall take up the general question of the hurtfulness of alcohol to the bodily health in its totality, and of its relation to a few of the forms of special ill-health which are commonly believed to depend upon the abuse of alcohol, or to be seriously and injuriously modified by it.

In a former number of this Journal (for April, 1847, p. 564) we find strong evidence as to the innocuousness of the mere act of intoxication, even when pushed very far indeed: "The other day," says our correspondent, "I found on inquiry, that, since Dr. Tait has been surgeon to our police here (five years), not less than 27,000 people have been brought to the police offices *drunk*, and deeply so. Of these 27,000 three only have died (except in metaphor), and these *three from exposure to cold, etc., along with the whiskey*. This is one death in 9,000. Now, could you give 27,000 black draughts to 27,000 patients and show such a small list of killed and wounded? I take it that more than three would abscond from this life under diarrhœa. And so with regard to any other active medicine. *Intoxication*, then, would appear to be one of the safest *therapeutic states* we can induce!"

Of course the same concession must be made to alcohol that we formerly made to tea; and we must remember that even helpless intoxication is not always due to the ingestion of large quantities of alcohol, cold taking a considerable share in producing those symptoms which—as we have already pointed out—it is of itself even capable of originating. The alcohol induces functional exhaustion of the cerebro-spinal system, and renders it liable to become morbidly congested by the reflex action of cold: this congestion may be only sufficient to produce confusion of thought, with which may be conjoined,

more or less, paralysis of some of the external muscles ; or it may go on to that fatal drowsiness from which the unfortunate sufferer wakes no more. It is a frequent observation in cold weather, that cold increases the intoxicating effect of spirituous liquors ; it would be more correct to say that previous indulgence in these liquors increases the stupefying effects of cold. In the very city from which the previous illustration is taken we have frequently had proof of the truth of the statement just made. There the neighboring farmers are in the habit of sending their servants daily to town with carts laden with farm-produce for sale, these returning in the afternoon with manure from the town-stables. At each of the main entrances to the town there is some one public house which is a focus of attraction (or howff) for the carters passing ; there they stop each day to take their *doch an dorras*, or stirrup-cup, to keep them by the way ; a quantity rarely, if ever, exceeded, — one which has no obvious effect upon them in moderate weather, but which produces very evident symptoms of intoxication when the weather is peculiarly cold. This has been a matter of frequent observation by many eye-witnesses ; may be accepted as a fact ; and is *pro tanto* a reason for the innocuousness of intoxication in that northern city, as of course the harmlessness of that state depends in a great measure on the smallness of the dose inducing it. On a reference to Dr. Tait's original letter, which is published at page 207 of Sir James Simpson's Memoir, it will be seen that the actual numbers were 5,671 annually, or 28,357 in all. Dr. Tait personally saw only about 400 cases per annum, most of them incidentally ; he was expressly called to see about fifty cases a year, and of these about twenty required active treatment ; so that the actual deaths amounted to only 3 per cent of the seriously poisoned cases, — certainly a remarkably small mortality.

But not only is poisonous intoxication with alcohol apparently a matter of small moment, but even its continuous use in considerable doses does not appear to be attended by any great constitutional deterioration. Hector Boece, in his "Chronicles" as translated by Bellenden, says that in Orkney, "howbeit the pepill be givin to excessive drinkin, and be plente of beir makis the starkest ail of Albioun, yet nane of thaym are sene wod, daft, or drunkin, als thay come hail and feir in thair bodyis to extreme age, but ony use of medecynary with strang and faire bodyis." Mr. Ward has put upon rec-

ord a considerable number of instances of those who indulged freely in alcohol, and nevertheless lived to a good old age; we shall only refer to a few of them. First, there was Lewis Cornaro, who led an intemperate life in his youth, and thus, aided by an infirm constitution, brought on a complication of disorders which threatened to terminate in speedy death. Being a man of sound understanding and determined will, by the advice of his physicians, at the age of thirty-five, he determined to lead "a sober and regular life" as he termed it, and he thus attained the great age of one hundred years. Cornaro wrote several treatises on this "sober life," and to these or to Mr. Ward's book, cited at the commencement of this article, we beg to refer for the particulars concerning his life-long experiment. What we wish to point out now is that for more than sixty years his enfeebled frame was maintained in health and comfort by a diet which consisted of twelve ounces of solid food and fourteen ounces of wine in the day, therefore of *more poison than food!* But the most singular part of his history is, that about the beginning of July every year he ceased to be able to drink any kind of wine whatever, every species of wine at this season becoming not only disgusting to his palate, but also disagreeing with his stomach; nothing, he found, could replace the wine, so that by the end of August he was so weak as to be at the point of death. He always took care, however, to have some new wine ready by the beginning of September; and one of the most remarkable facts concerning Cornaro is, that, after three or four days' use of this new wine, he was restored to his former degree of health and strength: to him, therefore, wine was both "meat and drink, and physic too."

According to Sir John Sinclair's statistical inquiries as to longevity, of 96 pensioners then living in Greenwich Hospital, between the ages of 80 and 102 years, more than one half drank freely, and only five drank very little or very moderately, while the oldest, aged 102, acknowledged to having drunk "pretty freely" and chewed tobacco "freely." In a return of pensioners, upwards of 80 years of age, in the Royal Hospital for Invalid Soldiers at Kilmainham, Ireland, Sir John describes the whole number as being 31, of whom 10 are described as drinking "freely" and the remainder "moderately." From these statements, and from other similar information to be gathered from Sir John Sinclair's work on "Longevity," from Mr. Ward's book already referred to, etc., it will be seen

that even a tolerably free use of alcohol is not inconsistent with considerable or even with great longevity; and our own experience is quite consistent with that view. Some years ago, in a small country village with which we happened then to be well acquainted, there were three old men; two of them might each have been taken for Tithonus, their bent and withered frames and shrunk shanks encased in breeches and long stockings so put one in mind of a grasshopper, while the third was of a more portly nature. Of the first two one was, if not a teetotaller, at least so rarely known to taste alcohol in any form that he was credited with teetotalism; the other was a stanch worshipper of Bacchus, coming home every market-day under the safe guidance of his old white pony, on which he was barely able to sit, and every evening, summer and winter, light or dark, he might be seen, with his old-fashioned lantern in his hand, crossing the old bridge and wending his way upwards to the public house (dram shop — apology for hotel) which stood on the top of the opposite bank of the river from his own house,— and that he never left till taken home far on in the night very comfortably drunk; the third was a moderate man who took his glass or two of wine every day after dinner like his neighbors, but was never known to exceed. These men were all above 80, and it used to be matter of speculation which would live longest: the moderate man died at 83, cut off by the results of an accidental chill; the old drunkard lived to 86, and died more from gradual failing than anything else; and the same might be said of the teetotaller, who lived to about the same age. Our own early experience was therefore rather in favor of alcohol as an aid to longevity. “Whiskey,” as the venerable Dr. Guthrie used to say, “was only fit to preserve a man after he was dead,—it killed him if taken when alive;” but it seemed that, in certain circumstances, it might even help to keep him in life, and we doubt not Dr. Guthrie himself would not have lived so long as he did but for a moderate allowance of good wine. Our later experience has all been to the same effect. In a large town we are as well acquainted with now as we were with the village formerly, the oldest man in the medical profession is one who, though above 80 years of age, still walks the streets (he has long since retired from practice) with a step nearly as firm and a frame nearly as portly as ever,—yet he, it is alleged, has for 60 years never failed in renewing nightly his allegiance to Bacchus; while of his teetotal breth-

ren all have died under 60 except one, who however bids fair in time to rival his opponent in longevity, and one or two others who gave up teetotalism in time. But though it is in the main, and only in certain classes and certain individualities, that the continuance of teetotalism does harm, yet in some few the very commencement of such a practice is occasionally injurious. Thus we are acquainted with a certain official, of some position and of the utmost moderation, who thought to become teetotal; but after a very short trial was forced to give it up, because he could not otherwise get rid of the labors of the day, which, so long as he drank water only, kept coming through his brain to his great discomfort, — this ceasing entirely as soon as he recurred to the moderate use of wine. Some might be willing to imagine that this was but a minor form of delirium tremens, which is so often alleged to be brought on by the sudden disuse of stimulants, and to be capable of being warded off by their continued moderate use; but this doctrine we unhesitatingly denounce as untrue and inconsistent with the experience of all hospital, prison, and penitentiary physicians, who all know very well that the sudden disuse of alcohol is never the cause of delirium tremens, — a disease which where threatened can only be prevented by giving up alcohol at once, and the cure of which is always at the best procrastinated in those very few unfortunate cases in which it is necessary to employ alcohol moderately as a stimulant. Fortunately the modern treatment of delirium tremens is so rapid and so certain that cases in which this exceptional use of alcohol is desirable are extremely rare, and with a long experience of the delirium-tremens wards in the infirmary of a large town we can scarcely recollect a single death from that disease; while the only one which we can remember occurring in private practice during an experience of many years was in the case of a confirmed drunkard of many years' standing, who, for the last year or two of his life, only recovered from one attack of delirium tremens immediately to recommence the practices inducive of another: yet even he, in the pre-chloral days of expectancy and food, did not die from alcohol, but from pneumonia, the effect of a stroll in the street in his night-shirt, the result of careless watching. By the way, it is somewhat singular, and it shows in a very striking manner the looseness of most of our ideas as to alcohol, that Dr. Anstie — first pointing out that the stimulant action of small doses of opium and alcohol was often curative in delir-

ium tremens, while the narcotism induced by large doses was not infrequently fatal, and that then the more rational plan of careful watching and feeding (introduced by Ware, of Boston, in 1831) were attended by the best results — states that “food is *the stimulus par excellence* for the brain which frequent narcotism has reduced to the state in which delirium occurs. . . . In all these cases the action of food may be supplemented or partially replaced by stimulant doses of alcohol, ammonia, etc., but true *narcotics are injurious.*” After such a dogmatic statement from so high an authority, the reader will perhaps be astonished to learn that the modern treatment of delirium tremens, which is so rapid, certain, and safe as almost to amount to an encouragement to vice, consists in administering large doses of one of the most powerful narcotics we possess, — one which has no food action whatever, — the hydrate of chloral. In itself alcoholic delirium is by no means a fatal disease; it only proves fatal from the alcoholic epilepsy occasionally accompanying it, from the occurrence of accidental pneumonia, etc., from the exhaustion consequent on previous malnutrition increased and cumulated by bad treatment, or from the result of organic degenerations consequent upon the prolonged abuse of alcohol; but under proper treatment deaths from all these causes are comparatively infrequent. We have attended a hoary old sinner of 88, who recovered perfectly, and was quite unabashed at his position; and, in spite of the former difficulty of treating this disease, we can point to several who have had repeated attacks during the last 20 years, and who yet enjoy to all appearance very excellent health: some of these are now of considerably advanced age, and have indulged not merely freely, but excessively, for more than twenty-five years.

We perfectly agree with Dr. Heslop in his estimate of the injury that may be done by the excessive employment of alcohol in the treatment of disease, and sympathize to a very considerable extent with the veteran Higginbottom's views as to the non-alcoholic treatment of disease, which he has so strongly enforced in the pages of the “British Medical Journal” for 1862, and elsewhere. Unfortunately, if Dr. R. B. Todd erred greatly in the one direction, Mr. Higginbottom errs just as much in the other; for he would banish alcohol altogether from medicine. We can only say that by so doing many lives would be lost which now are saved, though we quite agree that lives saved by alcohol are not so numerous as

Todd and his followers suppose. To enter fully into this question would involve a critical discussion on the actions of alcohol, and an equally critical disquisition on the pathology of the various diseases in question, for which there is at present neither time nor place, nor, we may add, necessity. One of the diseases, the origin of which has often been ascribed to the abuse of alcohol, is Pulmonary Phthisis. In the "Fourth Annual Report of the Massachusetts Board of Health," January, 1873, Dr. Bowditch has published an analysis of a correspondence on some of the causes or antecedents of consumption. This correspondence comprises the answers to twenty separate queries, and contains a great amount of information on the causation of phthisis. At present we shall only refer to questions 4, 5, 6, 7, and 8. Question fourth: Is consumption caused or promoted by the drunkenness of the parents? Out of 210 correspondents only 109 (51.43 per cent) answer in the affirmative, while 101 (48.09 per cent) take either the negative, or are doubtful, or decline to answer. Question fifth: Is consumption caused or promoted by the drunkenness of an individual? Of the 210 correspondents who answer this question 109 (51.9 per cent) say, Yes; 47 (22.38 per cent) say, No; 13 (6.19 per cent) are doubtful; and—pardon the bull—33 (15.71 per cent) decline to answer. The question is a difficult one; but it cannot be said that medical opinion, as tested by this correspondence, sustains the idea that consumption is either caused or promoted by intemperance. Question sixth: Is consumption prevented by the drunkenness of an individual? In other words, is a drunkard less liable than others to consumption? 46 (21.9 per cent) decline to answer; 17 (8.09 per cent) doubt; 113 (53.8 per cent) answer in the negative; while 27 (12.86 per cent) answer, Yes; and 7 (3 per cent) say that consumption is retarded. Dr. Bowditch, in reference to these replies, says that, —

In the present state of public opinion in regard to the use of intoxicating drink, it requires some moral courage to say anything in favor of alcohol. To declare that it sometimes seems to save the drunkard from the consumption to which he is hereditarily predisposed requires not only moral courage, but a sincere conviction of the truth of the assertion. . . . Meanwhile there have been some very peculiar examples in certain families, which seem to indicate that intemperance, bad as it is at any time, does nevertheless, in certain cases, apparently have

some good effect in warding off consumption; for in these instances the only persons that have escaped out of entire families were the one or two who indulged inordinately in the use of spirituous liquors. Perhaps one of the most curious documents supporting the idea that intoxication with ardent spirits tends at times to prevent consumption may be found in the letter of Theodore Parker to the Chairman of the Board, written in 1858, in which he gives details of his own family history. Mr. Parker had no doubt about the matter, and in that letter expresses the belief that "intemperate habits (where a man drinks a pure though coarse and fiery liquor, like New England rum) tend to check the consumptive tendency, though the drunkard who escapes may transmit the fatal seed to his children."

In the individual affirmative answers to this question there is not merely a statement of opinion, but many interesting facts are recorded in support of the views taken, forming a most striking contrast to the prevalence of opinion and the absence of facts in the answers to the next query. Question seventh: Is consumption prevented by total abstinence on the part of an individual? In other words, will total abstinence save a man from consumption? Nearly one half, 89 (43.38 per cent), answer in the negative; 22 (10 per cent) are doubtful; 56 (26.67 per cent) do not reply; and 38 (18.09 per cent) answer affirmatively that consumption is prevented by total abstinence. This question was asked mainly in the hope of ascertaining whether in the family of some drunkard, where many had been given to intemperance and had died of consumption, one who had practised total abstinence might have escaped the disease. Dr. Bowditch adds: "No such case, I believe, is on record. I regret the conclusion, but think it possible that no such case has occurred." Question eighth: Is consumption ever caused or promoted by the total abstinence of an individual from intoxicating liquors? 106 (50.47 per cent) answer negatively; 26 (12.38 per cent) affirmatively. This, of course, is to be expected; the cases in which total abstinence had any marked effect in causing or promoting consumption must be rare, as they must indicate either an inability to bear alcohol, or a martyr-like spirit of abstinence for principle's sake, — both of which, to the extent indicated, must be very rare, for even the most rigid abstainer does not usually refuse stimulants when directed by the physician. Dr. Bowditch adds that —

The small number of affirmative answers (12.38 per cent) suggests either a careless mode of answering — which I am not willing to admit, inasmuch as each person could, if he had chosen, have declined to answer that question, as, in fact, 58 (27.62 per cent) actually did, — or it suggests that there are a certain number of cases in which physicians believe that total abstinence really promoted what the *temperate* use of alcohol might have retarded or prevented.

I am quite sure that there are individuals now in this community who are ill from various other complaints in consequence of their strict adherence to rules of total abstinence, and who are immediately benefited by a physician's prescription of the temperate use of some alcoholic medicine. One can believe, therefore, that rigid abstinence might so lower vitality in some persons that consumption might more easily occur (in them) than in others who use alcohol carefully.

These are strong statements, but they are well supported by individual responses, which deserve to be carefully considered. The feeling in the profession on this side of the Atlantic has never been attempted to be defined, and for want of this it probably varies with each individual. Some few years ago we remember a distinguished physician (not Dr. Todd) who treated all his cases of phthisis with small regulated doses of alcohol, — we are not aware with what result. For our present purpose it is enough to show that there is no reason to suppose that alcohol of itself ever induces phthisis, and we think the evidence already given is sufficiently probative of this. That the tonic action of alcohol may occasionally be even actively useful in the cure of phthisis is rendered probable by the evidence narrated, confirmed as it is by the following anecdote related by Dr. Stokes in the "Medical Times" for 1855: —

Some years ago (says Dr. Stokes) I saw a gentleman who came to town laboring under all the symptoms of well-marked phthisis. The disease had been of some months' standing, and the patient *was a perfect picture of consumption*. He had a rapid pulse, hectic, sweating, purulent expectoration, and all the usual *physical signs* of tubercular deposit and *of a cavity* under the right clavicle. I may also state that the history of the disease was in accordance, in all particulars, with this opinion. I saw this patient in consultation with a gentleman of the highest station in the profession, and we both agreed that there was nothing to be done. This opinion was communicated to the patient's friends, and he was advised to return to the coun-

try. In about eighteen months afterwards a tall and healthy-looking man, weighing at least twelve stone, entered my study, with a very comical expression of countenance: "You don't know me, Doctor," he said. I apologized, pleading an inaptitude that belonged to me for recollecting faces. "I am," he said, "the person whom you and Dr. — sent home to die last year. I am quite well, and I thought I would come and show myself to you." I examined him with great interest, and found every sign of disease had disappeared, except that there was a slight flattening under the clavicle. "Tell me," said I, "what you have been doing?" "Oh!" he replied, "I found out from the mistress what your opinion was, and I thought, as I was to die, I might as well enjoy myself while I lasted; and so I just went back to my old ways." "What was your system of living?" said I. "Nothing particular," he said; "I just took whatever was going." "Did you take wine?" "Not a drop," he replied; "but I had my glass of punch as usual." "Did you ever take more than one tumbler?" "Indeed, I often did." "How many? three or four?" "Ay, and more than that; I seldom went to bed under seven!" "What was your exercise?" "Shooting," he said, "every day that I could go out." "And what kind of shooting?" "Oh, I would not give a farthing for any shooting but the one!" "What is that?" "Duck shooting." "But you must often have wetted your feet?" "I was not very particular about the feet," said he, "for I had to stand up to my hips in the Shannon for four or five hours of a winter's day following the birds."

(Magnus Huss, and other writers following him, seemed to prove that almost all the diseases to which humanity is exposed were either caused or increased by the abuse of alcohol,) and rabid teetotallers have improved upon this by substituting use for abuse. The teetotallers are right; careful statistics will unquestionably show that all our diseases are associated with the use of alcoholic liquors, and therefore (?) brought on by them, for we have no doubt that the occasional indulgence in strong liquors is the rule with all the inhabitants of Great Britain except teetotallers, who form but an insignificant fraction. The argument is invariably from *post* to *propter*, a most unsafe mode of reasoning; by means of it we may prove that the use of any common article of food — as potatoes, bread, or salt as the Chinese think — is the cause of all our ills. In order to prove that alcoholic drinks have a direct tendency to induce any special diseases, a much more careful investigation is required than any that has been attempted hitherto. The subject is confessedly one of extreme difficulty; but there is, at all

events, a disposition evinced in the present day to investigate it in a philosophic manner. It is a question in the decision of which statistics may unquestionably be most usefully employed, but in which statistics must be carefully corrected and kept within due and legitimate bounds. For instance, Mr. Neison has published several well-known statistical tables, all calculated to show that teetotal lives have a much better chance of longevity than the lives of those who partake of alcohol, even after the most moderate fashion; but the same fallacy lurks in this statement as in that of a brother statistician, who some few years ago sought to prove statistically that marriage possessed similar life-giving powers. In our opinion it takes a man of even more assured health and stamina to be a teetotaler than to be a benedict, while the teetotaler has the advantage in being able to have recourse, on medical prescription, to alcoholic stimulants when required; while it is very doubtful whether the present representative of Sir Cresswell Cresswell could be brought into action on medical prescription only, and still more doubtful whether, when so applied, his action would have the same life-giving effect as a draught or a series of draughts of *aquæ vitæ*. In Dr. Dickinson's paper on the morbid effects of alcohol as shown in persons who trade in liquor, published in the "Lancet" for Nov. 2, 1872, — comprising the dissection of 149 alcoholic traders, collected from the hospital records of thirty years, and compared with a like number of non-alcoholic traders, — he has stated that tubercle was greatly increased in the alcoholic class, bearing in them a proportion of sixty-one to forty-four of the non-alcoholic class. But the careful inquiry by Dr. Bowditch, already referred to, pretty conclusively proves that a serious fallacy lurks even in this mode of collecting statistical information on the point in question; the data are too few to warrant the conclusions drawn from them, but the more important fallacy doubtless is that they include the operation of other causes besides alcohol. These statistics also showed that among these 149 alcoholic traders empyema and the suppurative process generally was greatly more frequent than in the non-alcoholic class; but this also is opposed to modern opinions, there being the strongest reasons for believing that alcohol prevents, instead of encouraging, such processes.¹ By means of the statistics referred to Dr.

¹ We need hardly say we allude to the hindrance presented by alcohol to the *auswanderung* of the white corpuscles.

Dickinson has confirmed the statement he formerly made — in his work on “Albuminuria” — as to the influence of alcohol in the production of kidney-disease; namely, that, —

Whatever influence alcohol may have as a cause of renal disorders, there are other agencies by which it is over-ridden. The places where deaths from drunkenness or delirium tremens are most frequent are not those where renal disease most abounds, and, indeed, in some instances, enjoy a remarkable immunity from such disorders.

Having just shown that there is an undoubted fallacy in these statistics in regard to other diseases, we cannot, of course, accept them as certainly truthful in regard to this; though we think that something might be said in favor of insufficient food and exposure to cold, which are so likely to induce tubercle, having also a similar effect in inducing kidney disease, so that in a series of statistics in which tubercle prevails kidney disease ought also to be frequent, — and thus we might argue that alcoholic trading was an actual preventive of such affections. But, indeed, we hold that the statistics at present available are quite unsuited to give the information desired. For instance, in gathering information as to kidney disease, Dr. Dickinson has availed himself of the Registrar-General's Reports for Scotland, and in doing this he has argued that the rural districts are not so drunken as the town districts; but this, if true at all — which is doubtful — is only true of the truly agricultural districts, in which the laboring population are always poor: whenever, however, quarries, coal-mines, or other sources of better pay are introduced, the drunkenness largely increases. In looking over the Scotch Reports for 1866, 1867, and 1868, we found that the total mortality of the town districts during these three years was 102,388, and in the rural districts 99,589; while the deaths from nephria alone were respectively 456 and 310, — showing a large preponderance of this disease in the town districts. Nay, more, taking “ascites” as probably a more certain indication of cirrhosis than the more comprehensive rubric of “liver disease,” these statistics show a proportion of 90 in the town districts to 111 in the rural districts; while, if we include “liver diseases,” the total numbers are 1134 in the town to 1155 in the country, — showing a preponderance of deaths in the rural districts under both headings. And yet, according to the same statistics, the deaths from delirium tre-

mens and intemperance were 282 in the town districts to 145 in the rural districts. The statistics for three years, therefore, are the direct counterpart of those collected by Dr. Dickinson, and it would almost seem as if, for these three years at least, the most of the town drunkards had died directly from the poison, and thus lessened the mortality under the indirect headings. They are directly opposed to the correctness of the principle upon which Dr. Dickinson has collected his statistics ; or, if we concede that, then they are opposed to his conclusions. The lesson we would draw from such a discrepancy in statistics is simply that already referred to ; namely, that we have at present no statistics suitable for giving us the desired information as to the influence of alcohol on the production of disease.

The classes from which our statistics are mainly drawn are very often termed intemperate, or drunkards, on very insufficient evidence ; because, though on their own confession they get drunk at regular or irregular intervals, yet very many of them consume not a tithe of the alcohol which finds its way into the stomachs of more reputable parties, at shorter intervals and in more regulated quantities. Many diseases are thus liable to be set down as originated or as aggravated by alcohol, because they are of frequent occurrence among these proletarian drunkards, while they are comparatively unknown among those more respectable parties who nevertheless consume more than double the amount of alcohol, but who, by reason of its regulated ingestion are never drunk, who would repudiate with scorn the idea of being drunkards, and who by reason of their very respectability are not exposed to a number of most effective morbid agencies — such as defective nutrition, irregular and excessive exposure to atmospheric influences, etc. — which act with greater force upon the lowest grades of society, in whom these so-called alcoholic diseases are most prevalent, and from whom our statistics are usually drawn. Besides, intemperance is so widespread a vice that unless it had a very evident and well-marked prophylactic action it must be found, as it really is found, in close connection with all diseases, — diseases which vary with the age, position, etc. of the persons affected. In making these statements we by no means wish it to be inferred that we deny that, even after making every possible allowance, a much larger proportion of certain diseases shall be found to occur among those distinctly proved to have abused alcohol than

among temperate men or teetotallers. We only say that as yet nothing of the kind has been conclusively shown; and we also say that even if this had been proved, there is a still further inquiry to be made before we can credit alcohol with any active share in the production of these diseases.

The abuse of alcohol, as is very well known, is invariably accompanied by the almost complete disuse of any other article of food; and we venture to say that there is probably no other article of diet restriction to which for two or three weeks even would not be followed by serious disease, if not death. Yet a dipsomaniac emerges not very much the worse from his three weeks' debauch, during which he has taken nothing but alcohol in some shape or other; and Dr. Anstie tells us a remarkable case of a man, aged 83, who for more than twenty years had led an active life upon a bottle of gin a day, — the only other sustenance he took having been one finger-length of toasted bread daily, and a few pipes of tobacco. It may truly be said that this old gentleman's clay took a good deal of moistening to make it stick together; and we think we may safely add that nothing but alcoholic moistening would have kept it together so long. The strong argument against even the moderate use of alcohol, and in favor of its being in itself in all probability the actual cause of various diseases, is the assumption supported by Perrin, Lallemand, Duroy, etc., — that it is a poison utterly alien to the system, which may be imbibed but cannot be assimilated, and which in its passage through the system paralyzes nutrition, and so produces various degenerations, initiates sundry acute diseases, or gives sudden rise to nervous attacks of different kinds. But Dr. Hutson Ford, of New Orleans, has disposed of this argument by detecting alcohol in fresh blood and in fresh lung tissue of those who had not been using alcohol. He believes that it is derived from glucose, and that its destiny is to be burned, forming, as he believes, an important source of animal heat; and M. Béchamp has confirmed the existence of alcohol as a normal constituent of the body, by finding it in the urine of rigid abstainers: the urine was prevented from fermenting by the addition of creosote, and M. Béchamp has obtained from it, by simple distillation, enough of alcohol to set it on fire. It is most unlikely that what is a natural constituent of the body should act as a poison in every dose; it is equally unlikely that what is very generally used can be an agent of any very great harm; it is much more likely, from what we

know of life as the product of stimulation, and of the action of the vital stimuli, — air, food, etc., — that perfect health should be maintained within certain definite limits of variation in the use of alcohol. And this indeed has been shown to be the case by the experiments of Anstie, and of Wollowicz and Parkes, who have independently arrived at the conclusion that to maintain perfect health in an average man the limit of excess must not be greater than a couple of ounces of pure alcohol in the day; but, as this allows of 4 ounces of brandy, 10 ounces of sherry, or 40 ounces of beer in the day, it permits of a reasonable indulgence without any dread of after ill effects, while the results of excess are just as much to be dreaded in other things as well as in alcohol, — in food as in drink. It is idle to say that alcohol is not necessary for man under any circumstances, — that it is a mere luxury, whole nations, such as the Hindu and Mussulman, being able to do without it; while under all circumstances of exposure to great heat, or great cold, of excessive bodily labor, of great mental work, or of defective supplies of food, etc., man has been able to do quite well, and has sometimes fancied he has been able to do much better, without alcohol than with it. A precisely similar argument might be employed against the use of animal food, or indeed against any other article of diet, all of which are replaceable by others; though habit and other circumstances combine to make certain articles of food more agreeable and more convenient in certain conditions than others. Besides, a man's health does not depend entirely on the mere measure of his food and drink, — it depends in a considerable measure on its quality also. Cheerfulness and flow of spirits have indubitably a great deal to do with proper nutrition and the maintenance of health; it is well known that beaten troops rapidly deteriorate in health, while victorious ones improve and become more fit for their duties; and during the late American Civil War one regiment was known to have become scorbutic, although well supplied with plenty of both animal and vegetable food, simply from the deteriorating effects of idle listlessness. But are not cheerfulness and flow of spirits greatly favored by social intercourse and a moderate use of exhilarating liquors? Teetotalers may perhaps plead their own examples; but do they not owe their present power of whiling away their time at social meetings without the aid of exhilarating liquors to the novelty of their position, the excitement of agitation, and that

sense of superiority over the rest of mankind which their creed gives them? And indeed the history of alcoholic abstinence to a great extent answers this. Those who remember the stern simplicity of the old Temperance movement, which found bare facts and dry statistics quite sufficient to bowl it triumphantly along, — who recollect the apostolic fervor and enthusiasm of Father Mathew's semi-religious crusade, and have seen these replaced by the rabid propagandism of Teetotalism, and the ornate and inane vulgarity of Good Templarism, — will, we think, agree that but for the reasons given, and but for repeated periodic excitements and spasmodic revivals in novel and varied forms, abstinence from alcohol would long since have lost its injurious pretensions to political vitality, and have become what it ought to be, a simple portion of the Christian life, in which sobriety is inculcated as one of the virtues to be followed, while of the opposite vice we are solemnly warned that no drunkard shall inherit the kingdom of heaven. And indeed it is a frightful picture of the egotism of mankind that they should desire to supplement the mild yet effectual rule of Christianity by a Maine Law, a Permissive Bill, or an oath to Teetotalism!

We have pointed out, — and this might well have been shown in greater detail and in more forcible language, — that none of the *ex parte* statements, either for or against the use of alcohol, are based on any very accurate scientific or statistical basis, and that therefore it is safer to rest for the present upon the simple facts; and these are that the moderate use of alcoholic beverages is almost coextensive with the distribution of the human race, that it is not inconsistent with health and longevity, and that it has not been proved to be an active agent in the production of any special form of disease. And we think the facts might even warrant us in saying further, that the large use of alcohol by the nations most advanced in civilization proves that it is not inconsistent with mental, physical, and social progress, while to many among these hardest workers of the nations the food-stimulant action of alcohol is a positive necessity.¹

¹ The above words, written long before the delivery of Lord Houghton's speech at the Social Science Congress, might almost have been borrowed from it: "A national love for strong drinks," he says, "is a characteristic of the nobler and more energetic populations of the world; it accompanies public and private enterprise, constancy of purpose, liberality of thought, and aptitude for war; it exhibits itself prominently in strong and nervous constitutions, and assumes in very many instances the character of a curative in itself."

Were there no sunshine there could be no shade; were there no good there could be no evil; if alcohol were incapable of good, it would also be powerless for evil. We deplore the evil, the sin, the misery, and the disease to which the abuse of alcohol gives rise; but even Dr. Lunier, who has written forcibly against alcohol as a great source of madness and of suicide, points out that it is not so much wine, cider, etc., as ardent spirits that originate these evils; that is, it is not alcohol moderately used that is injurious, but alcohol abused, taken as a narcotic, and not as a mere stimulant; and that abuse no sane man would defend.

We have brought forward a considerable amount of evidence to show that alcohol is by no means the only stimulant that brings disease and misery on mankind. Suppose a strict rule were made that no nervine stimulant was to be employed by any one professing abstinence principles, what would become of the party representing them then? Would it not be split into cliques, each excluding the other for its intemperate use of its own peculiar stimulant, — tea, coffee, or tobacco? Yet to many these latter, though frequently preferred, are infinitely more injurious than alcohol. Is it not possible for philanthropists to unite on some common ground to promote temperance, and thereby restrain intemperance? We fear there is none but the old-fashioned carrying out of the true principle of Christianity: "Let your moderation be known of all men."

"Naturam expellas furca tamen usque recurrit!" In Mr. Ward's book will be found a succinct history of the past attempts at repressive legislation, and the many evils to which they have given rise; we refer to it for information upon these points, which would take up too much space to recapitulate here. The attempts to repress intemperance by legislatively promoting the substitution of beer and the lighter wines for the stronger alcoholic fluids has frequently been made, and now the experiment is going on at Gothenburg with great success say its promoters, with the very reverse say its opponents. In the Third Annual Report of the Massachusetts Board of Health Dr. Bowditch recommended very strongly this means of repressing intemperance; in the Fourth Annual Report Mr. Aldrich equally strongly declares that this is one of the very best means of inducing intemperate habits in the previously sober, — and yet such legislation would seem to be about the wisest thing that could be done. The cheapening and ren-

dering popular the lighter and less strongly alcoholic drinks is certainly one means of bringing about temperance; to make it effectual it must be accompanied by the legislative repression, not of the making or selling of drink, which would be in every way too dangerous an interference with the liberty of the subject, but of drunkenness. Marvaud says that to punish drunkenness is not to repress intemperance, because the seasoned cask would then escape, while the rigor of the law would fall upon its accidental infringer; but to punish such accidental infringements would go some way, at least, in preventing the manufacture of seasoned casks. The law ought, therefore, very properly to take cognizance of and punish all open drunkenness, — all parties found drunk upon the streets, quite irrespective of their being either turbulent or incapable. And it ought, furthermore, to provide means for the temporary seclusion of all those, whether dipsomaniacs or merely ordinary drunkards, who, by the petition of their nearest relatives or neighbors, can be shown to be squandering their means and impoverishing their families, or even ruining their health, by habits of intemperance. Any other means of aiding in the repression of intemperance — among which Marvaud specially mentions a due care for the lower classes, in providing them with food and amusement, and taking a general interest in their welfare — may be summed up as aforesaid in the practical exercise of Christian principles, which it is the duty of all of us to carry out; and, indeed, in any other sense it is a little out of place in these days, when the working classes have much more money with which to buy food, as well as everything else, than any other, and has its antithesis in the avowal which one woman was lately overheard to make to another, “Oor Jock gies me thretty shillins a-week to keep the house on, and dae what he like he canna drink the ither thretty.” Poor man!

