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future it may be presumptuous to claim; but that the doctrine itself will gradually extend its influence until it overshadows the whole earth, is no more to be doubted by one who accepts it than he can doubt his own existence. Sanguine as this language may seem, it is not wholly unwarranted by the manifest signs of the time, which show the most marked and rapid changes in the modes of Christian thought towards the standard pointed out by Swedenborg more than a hundred years ago.

ARTICLE VI.

A SOBER VIEW OF ABSTINENCE.

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THIS Article contains an endeavor to find in some of the facts and circumstances of the case a reasonable footing for a practical abstinence from alcoholic drinks as a good rule, — the dictate of common prudence and Christian benevolence. The words "practical abstinence" or "abstinence" are used instead of "total abstinence," inasmuch as this latter phrase, though apparently more definite, is in reality less so, because it is necessary in practice to qualify it with other words, such as "beverage," which, again, are indeterminate, and open a wide field of discussion as to what constitutes a convivial, dietary, or medicinal use. It is enough if abstinence can be established as the best general rule, to which use forms the exception. Our inquiry falls under three heads: first, prudential abstinence; second, benevolent abstinence; third, objections.

I. PRUDENTIAL ABSTINENCE.

The reasons for abstinence as a measure of prudence are derived (1) from physiology, (2) from experience. Let us consider, then,

1. *Prudential Abstinence in the Light of Physiology.*

Dogmatism here is very common, and in view of the enormous evils of drunkenness very tempting, yet caution and candor are greatly needed. In the present state of physiological chemistry we are not to look for proofs which will amount to a demonstration, but rather for evidences of tendencies. When scientific men who have spent their lives in investigating the subject speak of their knowledge as imperfect, and their conclusions as tentative, it becomes others to be modest.

1. We take up first the question as to the effect of alcohol upon the nervous system because this is its most obvious and important effect, the effect which probably to a large degree controls all others, especially that upon the circulation and nutrition. Now what in general is this effect? Science and also experience when carefully interrogated at once answer, It is anaesthetic, or deadening. This is the perfectly well known and most prominent action of alcohol, that which makes it at once a charm and a curse, and also gives it whatever value it has. It cannot better be stated than in the language of Dr. E. A. Parkes of Netley hospital, whose death in 1876 removed one of the most profound and candid observers. Speaking of the effect of alcohol on the nervous system he says: "In most persons it acts at once as an anaesthetic, and lessens also the rapidity of impressions, the power of thought, and the perfection of the senses. In other cases it seems to cause increased rapidity of thought, and excites imagination, but even here the power of control over a train of thought is lessened."[1]

It is true in popular language this effect of alcohol is spoken of as stimulating, but in general no more misleading word could be used. Men do not drink to have their nerves excited, but really to have them partially paralyzed, and if in some cases pleasurable excitement seems to follow, it is because a greater or less paralysis of the nerves controlling the

[1] Manual of Practical Hygiene, by Edmund A. Parkes, M.D., F.R.S. (4th ed., London, 1873), p. 274.

circulation and mechanism of the senses and the feelings is taking place, and hence the blood moves faster, the sensibility is blunted, and the sensitiveness of the entire organism is agreeably diminished. The whole secret of the fascination which alcoholic beverages have always had is just here. As Professor William James says: "The reason for craving alcohol is that it is an anaesthetic even in moderate quantities. It obliterates a part of the field of consciousness, and abolishes collateral trains of thought."[1] Let almost any one who has been a total abstainer take even a single glass of claret, containing hardly a thimbleful of absolute alcohol, and watch critically his feelings, and he will be apt to discover a slight deadening of the sensibility. Dr. Samuel Wilks remarks: "If most persons analyze their sensations after the imbibition of any alcoholic drink they will soon discover that to describe the effect produced upon them by it as stimulating is a misnomer, and that consequently the employment of the word almost begs the whole question as to its operation and value..... Its stimulating effects may be regarded as *nil* compared with those which may be styled its sedative or paralyzing ones. In a word, alcohol for all intents and purposes may be regarded as a sedative or narcotic, rather than a stimulant."[2] And he points out as evidence the fact that an attack of toothache, for example, which a stimulant would increase, is relieved by a little brandy and water; that a drunken man may have his teeth knocked out in a brawl, and be unconscious of his loss; and that a violin soloist about to perform will find his notes blurred, his sensibility benumbed, and the edge taken off his bow by a single glass of wine. Similar are the statements of Sir William Gull, who speaks of alcohol as being beneficial in certain conditions, when the nervous system needs to be deadened. It is this which gives it value in certain diseases.[3]

But while no one doubts that any considerable quantity of

[1] Boston Daily Advertiser, May 19, 1881. See also Diet in Health and Disease, by Thomas K. Chambers, M.D., F.R.C.P. (London, 1876), p. 232.

[2] Popular Science Monthly (New Issue), Supplement, Feb. 1879, p. 32.

[3] Ibid., p. 13 seq.

alcohol is an anaesthetic, producing narcosis, and ultimately, if large enough, coma and death, the critical and all important question arises, Do small quantities produce in proportion the same effect? Here we come to a comparatively recent theory, which claims that there is a radical difference not only in *degree*, but also in *kind*, between the effects of a large and of a small dose of alcohol. This theory is so important if true, and, though adopted by few, if any, of the great authorities on the subject, is so repeatedly, confidently, and dogmatically urged by many semi-scientific writers as an unanswerable physiological argument in favor of moderate drinking, that it deserves very careful attention.

The theory was maintained with much persistence by Dr. Francis E. Anstie of England, who died in 1874. The pith of it, as set forth in his work on Stimulants and Narcotics, and in various medical journals, is that alcohol is a true stimulant or true narcotic according to the amount used; that there is a fundamental difference in kind between the two results of such use; that the effect of a small or "stimulant" dose is indistinguishable from the effect of "the digestion of a true food," and that there is no more recoil or depression from the one than from the other; while the effect of a large or "narcotic" dose is "no less than the severance of the copula of life, ... in fact a more or less paralysis of the nervous system. ..... The use of even a single truly narcotic dose very probably produces a real physical damage to the nervous tissue, which absolutely requires a certain time for its repair."[1]

Now if this distinction in kind exists, and if this sharp line is to be drawn between the stimulant and narcotic, the food and poison effect of alcohol, according to the amount taken, the marks of these effects must be distinct. It becomes, therefore, of the first importance to determine what are the earliest and precise symptoms of each effect. Investigation on this point is not complete; but it is agreed that narcotism

[1] Stimulants and Narcotics. their Mutual Relations, by Francis E. Anstie, M.D., M.R.C.P. (Philadelphia, 1865), p. 218, and *passim*.

by alcohol first produces paralysis of the vaso-motor nerves.[1] Flushing of the face is mentioned by most observers as the first sign of this. "The most conspicuous of the primary actions of alcohol is a dynamic narcosis of the ultimate fibers of sensation and of vaso-motion — most conspicuous because exhibited in the cutaneous surface under our eyes."[2] Anstie says: "The first warning of alcoholic inebriation is flushing of the face;[3] . . . . . and it is interesting as being the first symptom probably (when it occurs at all) of narcosis."[4] In speaking of the stimulant or food action of alcohol, he says that to produce this effect it must be taken "in doses just too small to produce flushing of the face and sweating of the brow."[5] Professor John Fiske makes the same statement.[6] Anstie fixes the maximum amount of absolute alcohol which can be taken daily by the adult male without causing any narcotic effect at six hundred grains, or about an ounce and a half;[7] and yet in giving the details of an experiment made on himself of taking an ounce and a half of whiskey, equal to about three fourths of an ounce of alcohol, he admits that "in this instance I used a quantity of alcohol so small as I should not beforehand have supposed capable of producing the poisonous results." But "the poisonous effects were fully developed, though not very lasting. . . . . The face felt hot, and was visibly flushed; pulse eighty-two, full and bounding; slight perspiration on the brow."[8]

Now without dwelling on the fact at which Anstie hints above, and which is a matter of common observation, that

[1] "Nervous filaments, principally from the sympathetic system, accompany the arteries in all probability to their remotest ramifications. These 'vaso-motor' nerves play an important part in regulating the function of nutrition."—Flint's Physiology (New York, 1876), p. 67.

[2] Brit. and For. Medico-Chi. Review, Vol. lviii. p. 2.

[3] Stimulants and Narcotics, p. 171.

[4] Ibid., p. 204.

[5] Ibid., p. 113.

[6] Tobacco and Alcohol (New York, 1869), p. 92.

[7] London Practitioner, Vol. xiii. p. 28. On the Use of Wine in Health and Disease, p. 7.

[8] Stimulants and Narcotics, pp. 187, 345.

some people are narcotized by alcohol without any flushing of the face at all, it naturally occurs to any one to inquire whether it is not possible that this paralysis of the vaso-motor nerves may take place in some slight degree at least long before it is manifest in the flushing of the face; and whether a sharper scrutiny may not detect some more subtile and earlier evidence of such paralysis than this "conspicuous" symptom, and a paralysis which may be the result of even smaller doses than those which "beforehand would not have been supposed capable of producing the poisonous results." A hint which may help to answer this question is given in the observations made by Drs. Nicol and Mossop of Edinburgh. These gentlemen, conducting a series of experiments upon each other, examined the base of the eye by means of the ophthalmoscope while the system was under the influence of various drugs. They found that the nerves controlling the delicate blood-vessels of the retina were paralyzed, and the vessels themselves congested by a dose of two drachms of rectified spirits — less than a *quarter of an ounce* of absolute alcohol — or about a table-spoonful of brandy.[1] Here was a genuine paralysis, "a real physical damage to the nervous tissue," wrought by a dose of alcohol so small as to be regarded by Anstie as only very mildly "stimulant." The narcosis caused by this minute dose was of course less extended, but just as real as that which occurs when a man becomes dead-drunk.

As the nerves and blood-vessels of the eye have a peculiarly intimate connection with the brain this experiment would seem to show us, through this little window, as it were, to the cerebrum, how it is that even half a glass of light wine "goes to the head" of many people, that is, causes for a moment a slight dizziness and blurring of sight; and also how it is that, as Dr. E. Smith has shown, all the senses, particularly the sight, are blunted by very small doses of alcohol.[2] Is it impertinent to suggest that even

[1] Brit. and For. Medico-Chi. Review, Vol. l. p. 200 seq.

[2] Transact. Roy. Soc., 1859, p. 732. International Scientific Series, "Food," by Dr. E. Smith, p. 430.

smaller quantities than this quarter of an ounce may cause incipient narcosis, if only we had an instrument sharp enough to detect it? If so the distinction in kind between the effects of large and of small doses vanishes.

Some further light is given on this point by experiments made by Dr. Mulvaney, staff surgeon of the royal navy, upon the effect of alcohol upon the electrical currents of the body. He discovered that an ounce of brandy, equal to about half an ounce of alcohol, taken by a healthy man raised the galvanometer in a few minutes in one case twenty-five degrees, and in another case forty-five degrees. He concluded that the thermo-electric currents of the system were strongly excited by small doses of alcohol, and that this excitement may be profitably employed when there is "clear evidence of derangement of function springing from enfeeblement of the organic system of nerves"; but that "in health, when function, nutrition, and blood and nerve influence are harmonized by structural integrity," such artificially excited currents, by tending to abstract an undue amount of water from the brain-cells, "must interfere with their normal working."[1] This is clear testimony to the bad effects of even small amounts of alcohol in health, a matter to be noticed further on; but the precise point to be observed here is that the galvanometer affords a delicate test of the action of comparatively small quantities of alcohol upon the nerves, and of their narcotic, and therefore injurious, effect long before the ordinary signs of narcosis are apparent.

Relevant to the same point is some of the evidence as to the effect of alcohol upon the temperature of the body. This question has been profoundly discussed, chiefly in relation to the supposed food-action of alcohol, but it also has a bearing upon the inquiry as to the signs of narcotism.

That the temperature of the body is lowered by the administration of alcohol may now be regarded as a fact established by the investigations of nearly all observers.[2] The substance

[1] London Lancet, 1875, Vol. ii. p. 166.

[2] Ringer's Therapeutics (New York, 1876), p. 275; London Lancet, 1866, Vol. ii. p. 208; Richardson's Cantor Lectures on Alcohol, Nat. Temp. Soc. (New

of the fact is well stated by Professor Carl Binz: "The thermometer, the only reliable guide, indicates no important rise or fall after small doses of alcohol. Given in quantities a little larger, but still sufficiently moderate not to cause drunkenness, it causes a distinct fall, lasting half an hour or more; while after a dose powerful enough to inebriate, a still more decided lowering of the temperature, from 3.5° to 5° Fahr., is observable, which lasts several hours."[1] Now the precise action of alcohol in diminishing animal heat is still in debate, but it is agreed that one way in which it acts is by relaxing the muscular tone of the capillaries through paralysis of the vaso-motor nerves, thus increasing the action of the heart, and bringing the warm blood more rapidly to the surface, where (though a sensation of warmth is experienced) it is cooled at the expense of the internal heat.[2] But we have the testimony of Professor Binz, above quoted, to the fact that though small doses do not produce any *important* rise or fall of the bodily temperature, yet "a distinct fall, lasting half an hour or more," is effected by a dose sufficiently moderate not to cause drunkenness. This extract from Binz, as well as others to the same effect which might be made from Ringer, Rickard, Wood, and others, certainly does not seem to indicate any difference in kind, but only in degree, between the effects of large and of small doses. It points to a regular gradation in narcosis from the action of the smallest to the action of the largest dose. Certainly it shows that the thermometer reveals minute paralysis of nerve-filaments produced by quantities of alcohol so small that they are called by some only stimulant doses, because they do not effect *obvious* signs of narcotism.

The fact is Anstie's theory and his experiments and arguments in support of it are unsatisfactory. The theory so im-

York, 1881), p. 111; London Practitioner, Vol. v. p. 101. For other authorities, see Treatise on Therapeutics, by H. C. Wood, Jr., M.D. (Philadelphia, 1876), p. 115 Ref.

[1] London Practitioner, Vol. xxvi. p. 286.

[2] Brit. and For. Medico-Chi. Review, Vol. lviii. p. 2; and Dr. Lauder Brunton, London Practitioner, Vol. xvi. p. 63.

plicitly relied on by the friends of moderate drinking is by no means proved. It is no doubt true that in increasing the dose of alcohol from minute quantities a point is finally reached (never a fixed one, as we shall see) when the *ordinary* signs of narcosis begin to appear, but it is not shown to be true that no narcosis whatever exists till that point is reached, still less that an effect entirely different in kind goes on up to that point. Analogy leads us to believe that, without evidence to the contrary, the same effect in kind is produced by a small as by a large dose. But such evidence is wanting. On the other hand experience and many of the more refined and recent experiments, though certainly not conclusive, tend in the other direction, and indicate that the anaesthetic effect of a small dose, though not exhibited in the usual way, and not appreciably harmful, simply because there is no pronounced effect of any sort, is yet a real effect, and increases, as the dose increases, to distinct narcotism.

We are aware that it will be said in reply that other substances, such for example as salt and iron, have one action when given in small, and an entirely different action when given in large, amounts; in the one case being necessary to life, in the other being deadly poisons. But the analogy does not hold when applied to the action of alcohol, for we have very clear evidence that the food-action of salt or iron consists in a series of chemical and vital processes, by which these substances are partly absorbed and partly decomposed to become normal constituents of the body; while the poisonous action of large quantities of these substances is simply irritant and inflammatory — an entirely different thing. But in the case of alcohol, though large and concentrated doses doubtless have a certain amount of irritant and corrosive effect in addition to their narcotic, yet the *distinctive* action of the drug, whether in large or small amounts, is practically one and the same in kind — anaesthetic, sedative, or narcotic. There may, indeed, often seem to be a stage of true food or stimulant action wrought by small doses of alcohol, but the evidence adduced would appear to show that this is not a

direct, but a secondary effect, produced by a quickened circulation through a very slight deadening of the vaso-motor nerves, — the narcotic action being real, though practically imperceptible.

Before proceeding further it is worth while to notice that this theory of Dr. Anstie applies as much to opium as to alcohol, and abstractly gives the same countenance to the moderate use of the one as of the other. Dr. Anstie, speaking of the abuse of opium by Orientals, declares that with them "its *use* is an important and genuine one: it acts as a powerful food-stimulant, enabling the taker to undergo severe and continuous physical exertion without the assistance of ordinary food, or on short rations,"[1] and he believes that to a certain extent the same remarks apply to natives of England, though the doses are generally smaller. While he thinks there is seldom "any noticeable intermediate state between the stimulant and narcotic dose of opium,"[2] yet he feels sure that its use in quantities of from one to three drachms of laudanum daily is very common among "persons who would never think of narcotizing themselves any more they than would of getting drunk; but who simply desire a relief from the pains of fatigue endured by an ill-fed, ill-housed body and a harassed mind."[3] That is, more exactly, like the moderate drinker of alcohol, they desire just enough paralysis of the nervous tract as shall suffice to dull sensibility, and blot out annoying impressions. But the man who therefore, wholly sustained by this theory, should advocate the moderate use of opium as a food-stimulant to be used generally would be regarded as an enemy of his kind. Dr. Beard, a fair witness on this point, says: "I would rather risk my life by jumping off Niagara Falls than by forming the habit of opium eating."[4] Since the two drugs belong essentially to the same class, is, then, abstinence from alcohol, as the rule, unreasonable?

But even if we concede the truth of the theory under con-

[1] Stimulants and Narcotics, p. 139. [2] Ibid., p. 141. [3] Ibid., p. 141.
[4] Stimulants and Narcotics, by Geo. M. Beard, M.D. (New York, 1871), p. 149.

sideration, it is of no practical value except as inculcating abstinence; for the vital question immediately arises, What is a stimulant and what a narcotic dose of alcohol? Here we are launched upon a sea of uncertainty of the most dangerous sort. If we take the view of Dr. Anstie, what he calls "the poison line"—the line, that is, where stimulation ends, and narcosis begins—is never the same for any two individuals. And even in the same person it is continually shifting from an infinite number of causes. Climate, occupation, age, hereditary tendencies, previous habits, the character of the beverage used, the time, accompaniments, and frequency of of its use, the degree of health, and various minor conditions, which change from day to day, make it impossible to give any absolute rule for a perfectly safe dose, except none at all. Almost all scientific observers whose opinion is entitled to weight now so clearly recognize the dangers consequent upon this fact that, while they may indicate the amount of alcohol which may, as a matter of theory, be taken without apparent harm, it is so small, and even this small amount is prescribed with such earnest cautions and strict limitations as enormously to widen the boundaries of practical abstinence. So that the latest improved and scientific moderate drinker and the teetotaler are not half so far apart as they suppose. In fact it is only theory, and for the most part only a hair-breadth of that, which separates them. Thus Dr. Anstie, as we have seen, fixes the maximum quantity of absolute alcohol which can be taken by the adult male "without any *perceptible* injurious effect" at one and a half ounce daily, but he admits that "this amount is distinctly within the average consumption of persons of [so-called] moderate habits," and would generally be regarded as "utopian in its standard of temperance."[1] He acknowledges that many persons cannot safely take as much as this, or even any at all, and he states his "firm conviction that for youths, say under twenty-five, the proper rule is *either no alcohol, or very little indeed*."[2] Dr. Parkes, as the

[1] On the Use of Wine in Health and Disease, p. 7.
[2] Ibid., p. 40. Practitioner, Vol. vi. p. 96.

result of the experience of the Ashantee campaign, and of prolonged experiments upon healthy soldiers, fixed the amount which could be taken daily without visible narcotic effects, and with any advantage, at one ounce, and from that to one and a half; but he distinctly states that women cannot take as much, and that children ought not to take any.[1] For the purpose of stimulating a flagging appetite he thought half an ounce sufficient.[2] Dr. Garrod, the great authority on gout, whose opinions are of special value, fixes the maximum amount of absolute alcohol which can be taken with safety in the twenty-four hours at less than one ounce, "and many would find this more than is really suitable to their constitutions, and would be better if only two thirds or even less were taken."[3]

So much for generalization. But it is conceded on all hands that there are many persons who from constitutional peculiarities or hereditary tendencies can take absolutely no alcohol at all without narcotism, — "persons," as Dr. Brunton says, "on whom the smallest quantity of alcohol seems to act like the taste of blood on a tiger, producing in them a wild desire for more, and destroying all self-control. For them alcohol is a poison, and total abstinence their only safeguard."[4] It needs to be observed that these "unfortunates" belong by no means to the lowest class, but are found in all classes; that their number is uncertain, but would appear to be large, and, through overwork and the progress of nervous diseases, to be constantly increasing. They constitute a solid fact which tells heavily against the theory we are discussing, and renders its application a fatal snare.

Another fact which seriously damages the theory, and which may properly be considered in connection with the effect of alcohol upon the nervous system, is that alcohol in

[1] Proceed. Roy. Soc., 1870, 1872, 1874. On the Issue of a Spirit Ration during the Ashantee Campaign of 1874, by E. A. Parkes, M.D., F.R.S. (London, 1875), pp. ix, 33. Manual of Practical Hygiene, p. 277.

[2] Lancet, 1874, Vol. i. pp. 758, 759.

[3] Popular Science Monthly (New Issue), Supplement, Feb. 1879, p. 54.

[4] Ibid., Dec. 1878, Supplement, p. 143.

any amount is entirely needless, if not positively injurious, in health. Upon this point there is substantial unanimity among scientific men. Professor Binz, for example, says: "With respect to the requirements of the healthy organism, I consider the use of alcohol in health as entirely superfluous. A physician may therefore recommend total abstinence to healthy persons in every instance."[1] Ringer declares that "experience plainly shows that, for the healthy, alcohol is not a necessary, no, nor even a useful, article of diet."[2] Dr. Brunton testifies to the same effect,[3] and so does Dr. Parkes.[4] Not to speak of numerous other cases in which experience and science unite in forbidding the use of any alcohol, and which will be noticed further on, we have in this testimony adverse to its use in health a very strong practical argument against the theory of Anstie.

But it will be said that "there is no such clear line between health and disease as is assumed in common speech,"[5] and that there is a very large number of people who are not altogether well nor wholly sick; but are, or think they are, just between the two, and who find their daily dram a comfort, and to whom it is a benefit, never an injury. To the positively sick and diseased alcohol, in the hands of a skilful physician may, it is well-nigh universally conceded, be a useful remedy, though Sir William Gull doubtless gives utterance to the opinion of the best medical men now when he says that "it is over-prescribed."[6] To the positively healthy it is useless or hurtful. But it is in behalf of the nondescript dwellers on the border-land between health and disease that the benevolent appeal for moderate drinking is made. Respecting these persons and their habitual use of alcohol several things need to be said. In the first place, they are not for the most part diseased persons, but those who are physically exhausted through overwork, over-excitement, and excess of care. They take alcohol *mainly* for the sake of its anaesthetic effect,

[1] London Practitioner, Vol. xvi. p. 336. [2] Therapeutics, p. 277.
[3] London Practitioner, Vol. xvi. p. 122. [4] Manual of Hygiene, p. 284.
[5] On the Use of Wine in Health and Disease, by F. E. Anstie, M.D., p. 3.
[6] Popular Science Monthly (New Issue), Supplement, Feb. 1879, p. 13.

that is, because it dulls the sensibility, and for a time enables them to forget their sense of fatigue; and also through a mistaken notion that it supplies force for their work, which in point of fact it does not supply. They have no idea of becoming drunkards. Very likely they do not become openly such, but, as Dr. Anstie says, starting "with the intention of using only such a moderate quantity as in fact would not be narcotic at all [?], but would merely relieve weariness, they suffer themselves to be persuaded that by increasing the dose the relief will be increased,"[1] until their daily potation becomes a necessity, if not a destruction.

Here we need to bear in mind the evidence already adduced which shows that genuine narcosis may take place without becoming at all manifest by the usual signs, and from a far smaller dose than that commonly supposed to be narcotic. In some individuals this is the case far more than in others. There is no telling what a narcotic dose is, only we know that for many persons *any* dose is, and that it *may* be for the majority. Then we need to remember that *any* narcosis is simply destruction for the time being, to a greater or less extent, of the functional activity of the nervous system, "a severance of the copula of life," as Dr. Anstie vigorously puts it, and probably arises, as Dr. Parkes suggests, "from a direct though transitory union of the alcohol with the nervous substance."[2] Temperance literature with all its high coloring can hardly match in vividness the scientific description of this effect which is given by Dr. Anstie when he says: "The use of even a single truly narcotic dose very probably produces a real physical damage to the nervous tissue, which absolutely requires a certain time for its repair. If the process of recovery be interrupted by an early repetition of the poisonous dose it will be afterward more difficult, and the reiteration of this vicious sequence will at last render a more or less considerable portion of the nervous system useless as a conducting medium of the peculiar impressions

[1] Stimulants and Narcotics, p. 217.

[2] Manual of Practical Hygiene, p. 276, note, and p. 274.

which it is its function to transmit; and hence arises an insensibility, which makes larger doses of the narcotic necessary, as already explained. Moreover, this insensibility is accompanied, almost necessarily, by an habitual feeling of languor and depression which is very disagreeable, and with which the delusions of narcotism contrast very favorably. The dose is repeated, and, for reasons mentioned, in increased quantity; and the physical damage to the nervous system progresses in a way which it is not difficult to understand; for although the patient may have brought his nervous system to a state in which the symptoms of narcotic poisoning no longer include pleasant effects upon consciousness, the devitalizing influence continues to be exerted." [1]

Supposing, now, the "truly narcotic dose," causing this "real physical damage," be, as both science and experience abundantly prove it is for many, and may be for the majority, the sip or two of brandy, the two or three glasses of claret or sherry, or the five or six glasses of beer, or even much less, which the "utopian" moderate drinker takes during the day, then have we not very clearly set before us the danger to which these jaded people, who are neither sick nor well, are exposed from the charitable advice of the advocates of moderate drinking? Do we not also get a glimpse here at the normal genesis of the authentic drunkard?

But in addition to this, we must recollect that, as Dr. Anstie and others point out, and as is well known, the habit of even a "stimulant" indulgence in alcohol tends to enable the system to bear a larger dose without narcotism, or rather without its ordinary signs. For example, all the observers of the effect of alcohol in diminishing the animal heat referred to above draw attention to the fact that upon those who habitually use even a very moderate quantity the effect of a larger amount is not to lower the temperature so much as it does with abstainers. The reason is, that the extreme sensitiveness of the nervous tract is very slightly yet permanently impaired by the composition of the narcotic

[1] Stimulants and Narcotics, p. 218.

with its substance. In this way the system gradually acquires what is called "a toleration of alcohol." The man never gets seriously drunk, for he is always more or less minutely so. His narcotism does not show itself. Very likely he is not at all aware of it himself. Nevertheless, it is there all the same.

It is here that we find an explanation of those abnormal and monstrous cases of men who are said to drink daily sixty or seventy glasses of beer, containing four or five per cent of alcohol, without appearing to be sensibly narcotized. In these instances the system becomes accustomed regularly to relieve itself of this vast amount of liquid by the kidneys; and with it a large proportion of the alcohol is thrown off, else it would become almost immediately destructive. In respect to this power of elimination individuals differ enormously. But when it it said that these men are never intoxicated, and perhaps never could be, by this liquor, it must be remembered that language is used in its popular significance, and that there is evidence which shows that in these cases, in addition to more obvious evil consequences, a prolonged course of slight narcotism is going on, which gradually deprives part of the nervous system of its co-ordinating power.

Dr. Anstie describes this insidious process as a gradual degradation in the structure of those nervous centres upon which alcohol has the most powerful influence. The amount of food received tends to diminish, yet vigor is often maintained. These changes in the nervous matter — apart from other diseases to which they give rise — may shorten life, or they may not. They may after a time bring about a sudden rupture of brain fibres, resulting in instant death, or they may cause a "gradual shrinking of the brain or spinal cord, or both, in bulk, and the degeneration of a certain amount of their vesical matter."[1] In this way he accounts for those extremely rare cases in which life is prolonged to great age, with little or no food, through the use of excessive quantities

[1] Stimulants and Narcotics, p. 216

of alcohol — which, however, do not cause drunkenness, simply because a large portion of the nervous tissue is permanently narcotized, and has "ceased to fill the role of nervous tissue," [1] yet the man exists.

It is true that Anstie attributes this progressive and generally swiftly-run course of narcotism to the constant repetition of what he calls "a truly poisonous dose" of alcohol. But what is a truly poisonous dose? We cannot too often insist that even theoretically this is an entirely uncertain and undecided quantity; that individuals differ so very greatly that generalization is hazardous, if not impossible; and that practically it is most likely, as Anstie himself admits, the very dose which the moderate drinker is daily taking, "without thinking of getting drunk." [2]

We are now prepared for the judgment of two or three scientific men, whose opinions deserve attention, as to the prudence of this course of moderate indulgence which is urged for the benefit of those overworn and harassed people who are on the border-land between health and disease. And here, as elsewhere in this Article, the testimony of those who might seem prejudiced in favor of total abstinence is purposely left out.

The editor of one of the ablest British medical journals says: "We frequently meet with most respectable people, both male and female, who have never been drunk in their lives, yet have lapsed into a condition of alcoholism by taking extremely small doses of stimulant between meals, to enable them, as they say, to bear up against their work. These people have more difficulty than drunkards have in surrendering their appetites," [3] the reason being that through their slight, but long-continued indulgence the nervous matter has been more profoundly and permanently degraded than in the man who drinks excessively, and in a short time becomes a gross drunkard.

[1] Stimulants and Narcotics, p. 216.

[2] See Use of Wine in Health and Disease, p. 7 seq.

[3] British and Foreign Medico-Chi. Review, Vol. lviii. p. 6.

Dr. Brunton, the distinguished editor of the Practitioner, referring to those who use alcoholic liquors with the hope of aiding them in mental work, remarks: "Such persons may sometimes go on taking alcohol in moderation for a long time without doing themselves much harm, but they run great risk. For the very increase in power which the alcohol gives them is apt to induce them to use it more, and when their nervous system begins to fail under the combined effect of the excessive demands upon it which alcohol enables them to make, and the destructive action of excessive drinking itself, their self-control disappears, and they may sink into a drunkard's grave."[1]

Again, Dr. Parkes says, speaking of some of the remote effects of alcohol, "To use Dickinson's expressive phrase, alcohol is the very 'genius of degeneration.' And these alcoholic degenerations are certainly not confined to the notoriously intemperate. I have seen them in women accustomed to take wine in quantities *not excessive*, and who would have been shocked at the imputation that they were taking too much, although the result proved that for them it was excess."[2]

But the crowning and most decisive testimony on this subject is given by Sir William Gull, in his evidence before a select committee of the House of Lords, in which he says: "The constant use of alcohol, *even in moderate measure*, may injure the nerve tissues and be deleterious to health; and one of the commonest things in society is, that people are injured by drink, without being drunkards. It goes on so quietly that it is difficult to observe, even though it leads to degeneration of the tissues, and spoils the health and the intellect. Short of drunkenness [that is, in those effects of it which stop short of drunkenness], I should say, from my experience, that alcohol is the most destructive agent we are aware of in this country."[3]

[1] Popular Science Monthly, Dec. 1878, Supplement, p. 143.
[2] Manual of Hygiene, p. 276.
[3] Popular Science Monthly, Feb. 1879 (New Issue), Supplement, p. 14.

In view of these facts and this scientific testimony, the advocates of practical abstinence need not feel ashamed. It is this constant repetition of the small and apparently non-narcotic dose which, with its almost inevitable tendency to increase, the moderate drinker recommends to the over-worked and nerve-exhausted classes as good. Science, on the other hand, by her ablest, latest, and calmest interpreters, declares it is dangerous and bad. Is it too much, then, to say that good sense and prudence dictate abstinence as the rule to which use must be the exception?

We have occupied what may seem an undue space in discussing the effect of alcohol upon the nervous system. The reason is, that this is the primary and altogether chief effect from which nearly all others take their rise. As Dr. Anstie says, "When we consider the changes in the nervous centres as a part of the morbid tendencies induced throughout the body by alcohol, we find the former stand in a peculiarly prominent position. ..... The nervous system stands the full brunt of the poison, and suffers by far the most serious changes — a circumstance which we must attribute to some peculiar attraction between the nervous element and alcohol."[1] If we except the mischief done to the mucous membrane of the digestive apparatus, almost all the alcoholic derangements of the system, including those of the mental functions, are the result of the breaking down of the co-ordinating power of the nervous organism, probably through a combination of the alcohol with its substance.[2] Let us now glance at some of these effects, brought on by habitual, but comparatively small quantities.

2. The action of alcohol on the blood, as shown by Harley and Smiedeberg is to lessen the power of the red corpuscles to give off oxygen, thereby diminishing the oxidation of the tissues, and reducing the heat and functional activity of the body. "The chemical changes of the blood are partly arrested."[3] "In certain diseases, especially in

[1] London Lancet, 1872, Vol. ii. p. 663.

[2] See Anstie's Stimulants and Narcotics, p. 160 seq.

[3] Parkes' Manual of Hygiene, p. 274.

fevers, this may be helpful, but when the processes of the body are normal, it is likely to be injurious; though if the quantity of alcohol taken "be small and not frequently repeated, little or no harm will come of it. If it be frequently taken, however, by persons in average health and fair digestion, its effect will become obvious in the imperfect combustion of fat and its consequent accumulation in the tissues."[1] Because of this the potatory habits of people who are not suspected of taking alcohol can be detected by a certain velvety quality in the skin. It is partly in this way that the redundance of fat and fatty degenerations are brought about which are often seen in persons who take only very small amounts of alcohol in the form of fermented liquors, especially beer. In such cases there is no drunkenness; but these changes go on slowly and insidiously to the ultimate disorder of all vital processes.

3. The effect of even small amounts of alcohol upon the action of the heart, while doubtless beneficial in cases where that organ is enfeebled, has been fully proved to be injurious in the average subject by the elaborate researches of Dr. Parkes and Count Wollowicz, who found that a single ounce of alcohol increased the number of daily heart-beats 4,300 above the number when water alone was used; and that, taking the usual estimate of the heart's daily work, it did, during an alcoholic period of six days of varying doses, daily work in excess of this, amounting to 15.8 tons lifted one foot.[2] With claret the results were almost identical with those from brandy. Upon the results of their experiments these distinguished observers remark: "In spite of our previous experience in the use of alcohol and brandy we were hardly prepared for the ease with which the appetite may be destroyed, the heart unduly excited, and the capillary circulation improperly increased."[3]

4. As to the action of alcohol upon the stomach great risk is incurred in its use, and its value in stimulating appetite

[1] London Practitioner, Vol. xvi. p. 122.

[2] Proceed. Roy. Soc., p. 390; Parkes, Manual of Hygiene, p. 273; Richardson's Cantor Lectures, p. 85.

[3] Proceed. Roy. Soc., p. 394.

and promoting digestion is over-estimated. In many cases requiring substantially medical treatment it no doubt helps; but even in these cases, unless taken with great care and in very small quantities, it more frequently weakens and eventually destroys both appetite and digestion by supplanting, through the tendency to increase the dose, the natural stimulus of food. Dr. Parkes says: "In very small quantities it appears to aid digestion; in larger amounts it checks it, reddens the mucous membrane, and produces a chronic catarrhal condition;"[1] and Dr. Brunton remarks that "healthy stomachs with ordinary food do not require it, although in small quantities it may do little harm. A larger quantity, however, is certain to do harm. Moreover, if regularly used, even in small quantities, the stomach may become habituated to it, and refuse to respond to the stimulus of food alone unless supported by that of alcohol."[2] This is a scientific description of the fact constantly observed; viz. that there are men, not intemperate, whose digestion is spoiled by indulgence for a long time in very moderate quantities of alcohol. In general, in its action upon the digestive organs, as elsewhere, it proves itself to be an abnormal agent, to be used only in abnormal conditions. In this particular instance its useful effect seems to be mainly in rousing the nerves of taste; and the same end can generally, and with much less risk, be attained by change of food and the use of fruits and other flavors.[3]

5. As to the hotly-debated question respecting alcohol as a food, or food-stimulant, much has been anticipated in what has been said with regard to its action upon the nervous system and the blood. The inquiry whether alcohol is eliminated unchanged, or decomposed within the body, and if so in what way, derives its chief importance from its bearing upon this question. Much stress has been laid by those who claim that alcohol is not a food upon the supposed fact that it is not transformed in the system, but is at once thrown off

[1] Manual of Hygiene, p. 273. [2] London Practitioner, Vol. xvi. p. 63.
[3] See Prof. William James in Boston Daily Advertiser, May 19, 1881.

by various channels. This declaration was made with confidence in 1860 by certain French chemists. Their conclusions were, however, speedily criticised, and have been overthrown by later investigations. It would seem to have been proved by exhaustive experiments that, except in large doses, alcohol is not generally thrown off from the body unchanged, and even then only in proportionately small amounts. Within certain limits its "destructive decomposition within the body" would now seem to be a pretty definitely settled and accepted fact.[1]

Precisely how this decomposition takes place and what are its products is still in debate. Many observers, including Anstie, Binz, Baudot, Dupré, Brunton, and others, believe that it is oxidized within the body, as it is without, into carbonic acid and water, though this is by no means conclusively proved. Richardson thinks that it is changed "into a new soluble chemical substance, probably aldehyde."[2]

But the question whether alcohol is a food — chiefly a question of definitions — is not positively determined by settling whether it is decomposed in the body or not, and if it is into what products; for water, which is absolutely essential to life, and must, therefore, in a broad sense be regarded as a food, is not transformed at all. On the other hand, if alcohol is transformed in the body it would *seem* to show that it is a food. Yet, as Dr. Parkes suggests, "even if its complete destruction within certain limits were quite clear, this fact alone would not guide us to the dietetic value of alcohol. We have first to trace the effect of that destruction, and learn whether it is for good or evil."[3] This statement contains the pith of the matter. It is agreed that alcohol does not directly build up the system. "Alcohol is active

[1] Anstie, Stimulants and Narcotics, p. 358 seq.; Schulinus, Archiv der Heilkunde, 1866, quoted by Anstie, London Lancet, 1866, Vol. i. p. 12; Dupré, London Practitioner, Vol. viii. pp. 148, 224 seq.; Anstie, Ibid., Vol. xiii. p. 15; Binz, Ibid., Vol. xvi. p. 360; Dr. Lauder Brunton, Ibid., p. 124; Richardson, Cantor Lectures on Alcohol (New York National Temperance Society), p. 110.

[2] Ibid., p. 117.

[3] Letter to Anstie, Practitioner, Vol. viii. p. 82.

rather in the direction of repressing than of forwarding the growth of new structures." [1] It is not a food, then, in this sense. But in the sense of supplying energy, though it may itself be oxidized, and therefore seem to supply force and heat, yet it also diminishes oxidation, thus overcoming what might be, and what in febrile disease are, its food effects. We have to look at what else it does besides being itself burned.

As Ringer states: "Even if the greater part of the alcohol is consumed, and thus ministers to the forces peculiar to the body, yet alcohol, by depressing functional activity, favoring degenerations, etc., may do more harm than any good it can effect by the force it sets free during its destruction; even if taken in quantities too small to do harm, yet it can scarcely be classed as an economical food for the healthy. Granted that dietetic doses check oxidation in the healthy, and thus economize the blood and tissues, still, unless it can be shown that in health there is constantly an excess of consumption over and above that required by the body, a diminution of oxidation could only result in lessening the amount of force set free and put at the disposal of the organs, entailing, of course, a diminution of the functional activity of the body." [2]

Dr. Hammond, indeed, found that when he took too little food and lost weight, alcohol prevented the loss, and even supplied gain; [3] and Anstie has collected some cases in which he claims that life was supported for years by large doses of alcohol with substantially no food; [4] but, as Parkes says, these cases "demand more exact data"; [5] and Hammond himself remarks that "when the supply of food is normal, and there are *no special circumstances existing* which render the use of alcohol advisable, it is not to be commended." [6] In short, its use for any purpose of nutrition must be the exception, and not the rule.

About the most that can be said of the dietetic value of alcohol is that under certain exceptional conditions it may be

[1] Anstie, Practitioner, Vol. xi. p. 364.
[2] Therapeutics, p. 276.
[3] Treatise on Hygiene, by Wm. A. Hammond, M.D. (Philadelphia, 1863), p. 536 seq.
[4] Stimulants and Narcotics, p. 386.
[5] Manual of Hygiene, p. 281.
[6] Treatise on Hygiene, p. 537.

a "saving food," retarding tissue change, deadening nervous irritation, and that it may for a brief period enable a man to draw upon his reserve energy. But whatever theoretical controversy there may be, all observations conclusively show that as a nourishment for mental or physical exertion its use, even in very small doses, is utterly deceitful and bad. Parkes found from the experience of the Ashantee campaign and other experiments that it was worthless as a source of energy to the muscles, and that they were supported far better by coffee or meat-extract.[1] And the experience of engineers in such an enterprise as shifting the gauge on the whole length of a great railroad-line, a work requiring the most rapid and prodigious exertion, shows that "weak skilly"—thin oatmeal porridge—gives a strength and vigor that no grog can supply.[2] As to the use of alcohol as a giver of strength in mental work, physiological opinion is unanimous against even the smallest quantity.

Theorize and define as we may, to use alcohol as a dietary agent, unless in exceptional cases, is in the view of science just about as sensible as the advice of an old factory girl to a new comer: "Don't waste your money on pie: get a glass of gin; it 's cheaper." Science would say: Don't waste your money on either: get a dish of soup, of oatmeal gruel, a cup of coffee, or of meat-extract. It is better, cheaper, and vastly safer.[3]

6. At this point an interesting inquiry arises. It will be said that we have been dealing hitherto with the effects of simple alcohol, an article which in its absolute form is only obtained with difficulty, the common use of which in the form of distilled liquors is discountenanced by all who in any way advocate temperance, but whose action when it is taken in the form of fermented liquors is entirely different from its action when taken alone. This last statement is not at all so clear as to pass without proof; but before turning to this, there is one fallacy in the arguments concerning the matter

[1] On the Issue of a Spirit Ration during the Ashantee Campaign of 1874, p. 56, *et passim*.

[2] Brit. and For. Medico-Chi. Review, Vol. lviii. p. 7 seq.

[3] See Sir Wm. Gull in Pop. Sci. Monthly (New Issue), Feb. 1879, Sup. p. 13.

which is constantly urged by the advocates of moderate drinking, and which deserves to be pointed out.

The analogy of other poisonous substances is confidently brought forward to show that though pure alcohol taken alone is a poison, yet in certain combinations it may be a food, and therefore its action as alcohol is essentially different from the alcoholic action of wine and beer. Thus Dr. Beard says: "Phosphorus is one of the most virulent of poisons, but is found in fish and meat; and partly for this reason is it that fish and meat are good diet for brain-workers,"[1] implying that we are constantly taking phosphorus into the system as an article of food. And Professor Fiske says: "Chlorine is eminently a poison, yet we are all the time taking it into our systems, combined with sodium, in the shape of common salt."[2] But Dr. Beard and Professor Fiske know perfectly well that in point of fact we never take these virulent poisons into the system at all, but only certain *chemical combinations* of them with other elements, making *entirely different substances*, viz. phosphates, phosphites, hypophosphtes, and chlorides. But the analogy breaks down utterly when applied to alcohol in fermented liquors, for whatever effect it has in them is due simply to itself as *alcohol*, and not to any chemical combination whatever into which it enters with their elements, for there is no such combination present.[3] It has been proved abundantly through repeated tests by the most careful and authoritative observers that there is not "found a single physical or chemical property possessed by wine which is not in perfect harmony with the assumption that it contains the alcohol as a simple admixture, and not in *any sort of chemical combination*."[4]

[1] Stimulants and Narcotics, by Geo. M. Beard, M.D. (NewYork, 1871), p. 35.

[2] Tobacco and Alcohol, by John Fiske (New York, 1869), p. 84.

[3] Certainly there is none except perhaps in infinitesimal quantity. It is supposed that the bouquet of wine — when not artificial — is due to oenanthic ether, a compound formed by the action of acetic or other acid upon alcohol, but this is so minute as not to enter into the account.

[4] A Treatise on the Origin, Nature, and Varieties of Wine, by J. L. W. Thudichum, M.D., and August Dupré, Ph.D. London: Macmillian and Co. 1872. p. 159.

So much for the oft-repeated fallacy that the alcohol in wine and beer is not alcohol at all, but some sort of a nutritive chemical combination of it with other elements.

There are of course in fermented liquors a large number of other substances besides the alcohol; but whether these substances are in themselves helpful or deleterious is an open question, upon which authorities differ, and which is dependent chiefly upon the precise character of the liquor used, and the condition and idiosyncrasies of the drinker. That these substances are sometimes tonic and alimentary is clear; that they are very often seriously harmful and the active cause of a class of diseases like dyspepsia and gout is equally clear. Wholly apart from their alcoholic effects, and from the large question of adulteration, it really demands much experience, or the judgment of a physician or expert, to determine what, if any, wine or malt liquor is helpful in a given case.[1] But the almost sole reason for drinking these liquors is after all the alcohol they contain, without which they would be flat enough; and so far as the alcohol is concerned the reason for taking it in them rather than alone is for the most part the same as that for taking it mixed with water and with food, viz. simply that it may be liberally diluted, and therefore that its acro-narcotic or corrosive effect upon the stomach and alimentary canal may be avoided, and that it may be absorbed more slowly, causing, as Dr. Parkes says, a more "moderate paralysis of the vaso-motor nerves of the stomach."[2] But the assumption that apart from this dilution the alcohol in wine and the alcohol in spirits have an essentially different action is overthrown by the elaborate researches of Dr. Parkes and Count Wollowicz upon the effect of red Bordeaux wine upon a soldier, which are summed up by saying, "In general terms we may say that the results obtained were the same as those observed in experiments with plain spirits and brandy."[3]

[1] See Anstie, On the Use of Wine in Health and Disease.
[2] Lancet, 1874, Vol. i. p. 759.
[3] Practitioner, Vol. vi. p. 102; Proceed. Roy. Soc., 1870, 1872.

Besides this we need to recall the fact to which we have already quoted the testimony of Anstie, that the changes wrought in the nervous system by alcohol are far more important and serious than all the other disorders brought on by this agent; and then put with this the fact which Anstie also emphasizes, that there is this important difference between alcoholic action upon the nervous system and other organs of the body, especially upon the digestive apparatus, that "whereas in the latter case very much depends upon the kind of alcoholic liquor taken, and *particularly upon its degree of concentration*, the effects of alcohol upon the nervous system seem to depend *almost entirely* upon the *quantity* of alcohol taken in each day or week, and very little upon the *kind* used." [1]

The distinction between the alcoholic action of pure spirit and of wine thus dwindles to a mere nothing, and is dependent almost solely upon the fact that one is simply more concentrated than the other.

A strong protest is made against drinking distilled liquors by those who advocate the use of fermented beverages as a cure for intemperance. As reformers they stay themselves mainly upon this protest and advocacy. Yet they are really inconsistent. The distinction between the two kinds of alcoholic beverage is less important than they suppose; for if only distilled liquors be properly diluted and taken with food there is excellent authority for saying that in many cases this is the best way to take alcohol if it is to be taken at all. Thus Dr. Parkes says: "When the effect of alcohol upon digestion alone is sought, I think by far the best plan is to follow the plan advocated by Wilks, and give rectified spirit, properly disguised, as medicine. We shall then be certain of purity; that the proper quantities are given, and at the times we desire." [2] The same course is recommended by Binz in view of the difficulty of obtaining pure wines,[3]

[1] Lancet, 1872, Vol. ii. p. 661. [2] Lancet, 1874, Vol. i. p. 759.
[3] Practitioner, Vol. xvi. p. 365.

and by Richardson and others as a "wiser because a more accurate and measurable method."[1]

Indeed, in connection with the fact that the precise point where narcotism begins is indeterminable, and that the minimum quantity of alcohol which produces it is also indeterminable, it is obvious that one of the chief perils of the habitual drinker of fermented liquors is that he never knows, or is careless about, the exact amount of alcohol he is daily taking, and thus the actual danger of that slow and insidious narcosis already pointed out is increased by the use of what he considers pre-eminently safe beverages.[2]

7. We may glance at a few of the restrictions scientifically put upon the use of alcohol, which constitute a strong argument in favor of abstinence. Thus all physiological authorities insist that any alcohol is almost always useless, if not positively hurtful, in health; that even in minute doses it is poison to many people; that it should never be taken by children, or habitually even by young men or young women; that it is useless, and even dangerous, to take it in extreme heat or extreme cold; that it must never be taken during exertion, either mental or physical, with the idea of supplying strength, which in point of fact it never does supply in such cases, except at the cost of subsequent depression; that it must not be taken by athletes, or by those who have severe and critical mental or physical work on hand; that it must never be taken early in the day; never on an empty stomach; never in more than one form daily; and never unless largely diluted either naturally or artificially. All of this makes practically in the direction of abstinence. These broad and well-grounded restrictions put the advocate of habitual moderate drinking, as that phrase is commonly understood, in the position of one who must give a distinct reason for his habit.

And here we may sum up this part of our subject in the language of a medical writer already quoted, who says:

[1] New York Independent, Article by Dr. Coan, Spring of 1879.

[2] See Anstie on the Use of Wine in Health and Disease, p. 7 seq

"Few persons will deny that there are circumstances by no means of infrequent occurrence when it must contribute to the well-being of the individual to modify the nutrition and other vital acts of the body in the directions indicated above [i.e. in the way of deadening nervous irritation, rousing the heart, stimulating the circulation, etc.]. But a great many will dissent from the opinion that it is wise to employ the means thus placed at our disposal. They say you are paying too much for your whistle; that the retardation of the blood-current and the relaxation of the capillaries necessarily tend to permanent organic lesions, latent, indeed, but insidious, and aggravated by each additional dose in proportion to frequency." [1]

Practically the whole matter is in a nutshell: Will it pay? In view of the utterances of science the answer of prudence would seem to be, No. Good sense must make abstinence the rule, use the exception. We now take up

2. *Prudential Abstinence in the Light of Experience.*

It does not come within the scope of our purpose here to consider the enormous evils of intemperance, — evils so great that the simplest statement of the facts has come to be regarded as gross exaggeration, and so fails to impress us, — evils so complex in their causes and so far-reaching in their effects, that they are awakening, as never before, the attention not only of reformers, but of statesmen and sociologists the world over. Intemperance is admitted to be a chief curse of civilized society. Yet we are not now concerned with this gigantic evil except to say that it constitutes a hard fact — the dark background against which all discussions respecting the use of alcoholic liquors as common beverages are thrown into sharp prominence, and by which all theories and experiences as to the good or ill of such use must inevitably be gauged.

Bearing this in mind, and not attempting any discussion of intemperance itself, we wish here to point out two or three

[1] Brit. and For. Medico-Chi. Review, Vol. lviii. p. 2.

results of experience which show that abstinence as contrasted, not with drunkenness, but with moderate drinking is the dictate of good sense and prudence.

1. The statistics of life insurance companies in Great Britain prove conclusively the advantage of abstinence over moderation. In the United Kingdom Temperance and General Provident Institution there are two sections: one of abstainers, the other of persons selected as not known to be intemperate. The claims for five years which were anticipated in the abstinence section were £100,446, yet there were actual claims for only £76,676. But in the section consisting of persons simply temperate the anticipated claims for the same five years were £196,352, while the actual claims were no less than £230,297. That is, for five years the claims of the abstainers were only seventy-six per cent of what was expected to be paid them, while for the same period the claims of the moderate drinkers amounted to one hundred and eighteen per cent of what was expected to be paid them, — a balance of forty-two per cent to the credit of abstinence. It is no wonder that Dr. Parkes, from whom these facts are taken, though himself not an abstainer, calls this "very striking evidence in favor of total abstinence as contrasted with moderation."[1]

He remarks also that "the much greater longevity of the abstainers is better seen by the amount of bonuses paid to each £1,000 whole-life policy in the two sections for the same five years," and then gives a table by which it is seen that the abstainer received as bonus for the five-years period a sum varying from £26, with an entrance-age of fifteen years, to £51, with an entrance-age of fifty-five years, *in excess of that received by the moderate drinker for the same period*. "At every age, therefore," says Parkes, "the abstainer has a very great advantage."[2]

The same advantage is brought out in another form when we find from insurance statistics that for a given period, where calculations from the tables of mortality anticipated

[1] Manual of Practical Hygiene, p. 270. Foot-note. [2] Ibid.

the death of 1,110 abstainers, only 801 did die; but where the death of 2,010 ordinary people was anticipated 1,997 actually died.[1] The contrast, be it observed, is not between abstainers and drunkards, for the latter are never insured, but between abstainers and moderates.

Now these are weighty facts. There is no sentimentality about them. They show that the calmest results of experience harmonize with the deductions of physiology, and they constitute a downright argument against moderate drinking which the dullest can appreciate.

2. A second class of facts, to which we can only briefly refer, shows that in times of great exposure and hardship, as also under the attacks of disease and sudden accident which bring men into extreme prostration and peril of death, the abstainer invariably has the advantage over his brother the moderate drinker, under the same conditions. The whole nation has lately been witness to a thrilling instance of this. Dr. Parkes gives abundant examples in proof of the same thing;[2] and the medical experience of our late war, as well as the records of every city hospital, establish the facts; so that it has almost passed into a proverb that in such circumstances the abstainer has the best chance of pulling through.

Now it is said by the advocates of moderate drinking that none of us lives an ideal life, that we must often submit to impure air, to overwork, and under-sleeping, which reduce vitality and strength, that perfect health is almost unknown, and therefore alcohol should be used to give us support. Is not the argument really all the other way? We cannot live ideally. Even those most happily situated are daily exposed to emergencies of care and depression, to sudden drafts on strength and spirits, to insidious disease and violent accident, — how much more so the poor and habitually ill-housed, underfed, and overworked, — and therefore no one can afford

[1] Boston Daily Advertiser, May 19, 1881. See also New York Independent, July 7, 1881, p. 7, and Princeton Review, Jan. 1881, p. 83 seq.

[2] Manual of Practical Hygiene, p. 277 seq.

to take the additional risk and burden which even a moderate habitual indulgence in alcohol implies.

3. An argument which comes home to every one, and of which every one, if he is honest with himself, must feel the force, is that practically, let our own theory or habits be what they may, we always rejoice to feel sure that those to whose hands we commit any interest whatever are abstainers. We cannot help being uneasy if we are aware that our janitor, clerk, or agent is a moderate drinker. We have a greater sense of security if we know that the captain or pilot of our steamer, the engineer of our train, the bridge-tender or switchman to whose steadiness we must trust, does not habitually drink even fermented liquors. Many a man ridicules teetotalism over his wine or spirits who will not have a coachman who takes even beer. The coachman may never have been drunk, but the risk of his becoming so — the risk of his hand and eye becoming a little unsteady at the critical moment — is too great. All of us demand that practical abstainers shall be in these places of responsibility. A general regulation of one of the largest railroads in the country, the Pennsylvania, is that "No person addicted to the use of intoxicating drinks shall be employed or continued in its service."

And so on the other hand the abstainer, other things equal, always has far the best chance of employment in every position requiring trustworthiness and steady nerves. It may be urged theoretically that moderate drinking is perfectly consistent with the best exercise of a man's faculties; but practically, in cases like the foregoing, very few men believe the theory, and fewer still are willing to take the risk involved by putting it in operation.

4. The promoters of moderate drinking stigmatize as an "atrocious dogma" the declaration that such drinking leads to drunkenness. The declaration may have been urged too far; certainly if it implied that such drinking *invariably* leads to drunkenness it would deserve the stigma. Such, however, is not the statement. No doubt millions drink

moderately, and yet never become drunk or drunkards in the common acceptation of those terms. But "moderate drinking" is an utterly indeterminate phrase; for we must bear in mind the proof already given from the most unprejudiced authorities, not only that for a large class of persons *any* drinking means certain drunkenness, but that the vast proportion of so-called moderate drinking, though it may never produce open drunkenness, is yet genuine excess, accompanied with the substantial results of intoxication. But since all drunkards certainly began with what they at least considered a moderate use (and it would seem hard in such an open question not to concede them the right to their own opinion), it is difficult to see whence the great army of drunkards and the vast evils of drunkenness come except from those who begin with such use. That all who drink moderately do not become drunkards does not alter the fact that all drunkards were first moderate drinkers, and therefore that moderate drinking tends to drunkenness. If all who take alcohol would only stop with half an ounce or an ounce a day, no doubt drunkenness would practically cease; but in point of fact a very large proportion do not stop there, and, from the very nature of the drug's action and the habit it fosters, *will* not; and hence the solid ground for abstinence, which is not proposed for human nature and circumstances as they might be, but as they are.

But leaving the relations of moderate drinking to drunkenness, we must not forget here that the evil effects of an indulgence which stops far short of actual drunkenness are so great as to make alcohol, in the words of the able and accomplished Sir William Gull, already quoted, "the most destructive agent we are aware of." Our friends who exalt the value of moderation are forever forgetting that gross drunkenness and its concomitants are by no means the only evils which come from the habitual use of alcoholic beverages, and therefore they misconceive the aim of abstinence. They are forever blind to the fact that a very great proportion of the mischief caused by alcohol never comes to the light in

such places as the police court, but is wrought slowly and in secret under the elastic mantle of the moderation for which they plead. For not only does the moderate drinker who is never drunk run a certain inevitable risk, which by the doctrine of chances might be calculated, of becoming himself an open drunkard, but leaving out this, he wastes his money; cultivates a habit which inclines to diminish his power of resisting disease; puts himself to some degree in the grasp of an agent which "leads to degeneration of the tissues, and spoils the health and intellect," and tends, by the evidence of statistics, to shorten life and to establish a predisposition to certain ills, such as nervous disease and insanity, which, though they may not become obvious till the second or third generation, yet seem to be rooted in the man's mild alcoholism.[1]

Again the simple question arises, Does moderate drinking pay? And the answer from experience as from physiology would seem to be an emphatic No. Good sense and common prudence inculcate abstinence as the general rule, to which use, if practised at all, must be the temporary exception, bound to give a clear and sound reason for itself.

II. Benevolent Abstinence.

So far we have considered some reasons drawn from physiology and experience for abstaining from alcoholic beverages as the dictate of good sense—as a rule of prudence in view of one's personal well-being. To the extent to which these reasons thus applied are sound they also inculcate abstinence as the dictate of benevolence—as a good rule for the sake of others. They constitute a substantial ground on which to base an appeal for abstinence to those who may not think they need it for themselves, but who by their example can help those who do need it.

It is admitted that the Bible does not prohibit the use of wine, though it utters earnest warnings against excess, and

[1] See pamphlet on "The Insane Diathesis," by Henry P. Stearns, M.D. Hartford, Ct. 1880.

though it gives, as we shall see, general principles which afford ample foundation for abstinence. It is admitted that science does not always forbid the use of alcohol and alcoholic beverages, though it often does so, and though it always surrounds that use with such strict limitations as practically to advocate abstinence as the best general rule for the many. However, leaving out of account the therapeutic action of alcohol, it is granted that there may be some—how few no one knows—who can use these beverages without sensible injury, and perhaps, under certain conditions and in certain amounts, with benefit. Now whether these shall abstain from such use for the sake of others, and if so to what extent and under what circumstances, is ultimately a question for the exercise of private judgment and of individual benevolence in view of the facts of the case. Such abstinence is an act of grace, and rests on precisely the same basis that self-denial for the sake of others in the use of anything not in itself sinful rests.

The general principle is abundantly set forth and illustrated in the New Testament. Paul makes it very plain in special instances in Romans xiv. and 1 Corinthians viii. Some of the Christians at Rome and Corinth had conscientious scruples against eating certain meats which had been offered to idols. In itself eating the meat was a matter indifferent. Yet Paul urges those who have this "knowledge" not to eat such meat lest thereby they should cause their weak brethren to sin. Of course in this case the ground of the appeal was the fact that the weak brethren were likely to be led by the example of the stronger to do an act which their consciences disapproved. But the same general principle applies to the case of those who by their use of a thing in itself indifferent may lead others to such a use of the same thing as for them involves sin in the sense of physical as well as moral debasement and ruin. In both these ways, that is, for the sake of those whose spiritual apprehension is feeble or distorted, and for the sake of those whose bodily appetites are strong and unrestrained, every man of

Christian principle is constantly denying himself in a multitude of things, *per se* without moral quality, and for him permissible and even useful; as for instance in dress, equipage, and amusements.

In which of these indifferent things, and how far, he shall so deny himself, he must be the judge, as accountable for himself to God. He must consider, with what time, strength, and wit he can, all the circumstances; the extent of his influence, not only its near and certain, but remote and probable effects; the tendencies of society; the nature and amount of the evil his example may foster; the possible necessity of breaking up bigotry by independent action; and then must use his discretion and liberty, taking heed that this liberty be not an occasion of sin to others. If in the honest use of judgment and conscience he deems it right not to deny himself in a thing not sinful *per se*, which yet others, pleading his example or influenced by it, are sinfully using, he ought not therefore to be denounced as a sinner; for his view may be juster, and his action really more benevolent, than that of those who condemn him. Yet, on the other hand, he may have made a mistake and done great harm, for which error and consequent evil he must answer to God; though his guilt is by no means the same that it would have been had he committed an act wrong in itself.

Moreover he should not by social or other pressure be forced against his judgment and conscience to refrain from things in themselves indifferent, which yet others, led by his example, may be using to their harm, for in that case the responsible exercise of his own powers of judging, and all the flavor, grace, and effect of his self-denial would cease. He may indeed see it to be his duty in certain circumstances to refuse entirely to perform some act of self-denial which the judgment of many whom he respects may commend, and which ordinarily he would gladly perform, but which he now declines, because he judges that in this case the defence of individual liberty or the education of the people in the true grounds of the measure are worth more than the immediate

results of such self-denial. To his own master he must stand or fall. The real self-denial may be in doing for the sake of his example upon others the very thing from which under other conditions he would refrain. Thus Paul declined to circumcise Titus when the Judaizing teachers insisted that he must, although he had before circumcised Timothy in free and benevolent concession to the scruples of the Jews. We are bound to defend our liberty against the attacks of those over-righteous ones who seek at times to enforce upon us as a matter of intrinsic and immutable obligation that which in its nature depends for its moral quality upon circumstances respecting which there may be honest difference of opinion. "For why is my liberty judged of another man's conscience?" (1 Cor. x. 29.)

But while this is true it is also true that there may be facts so plain, tendencies so uniform, and circumstances so pointed and well understood, as to make the giving up of things in themselves indifferent, for the sake of one's example in strengthening individuals against temptation, or for the sake of promoting the good of the community, almost imperative. At such a time and in such cases a man's exercise of private judgment, and his personal liberty of indulgence in the indifferent thing, though abstractly perfect and unabridged, may practically be reduced to a vanishing point, simply because the conditions and accidents of the thing have such a uniformity of sequence as to create approximate uniformity of judgment, and so of sense of obligation. There is no coercion here, no trespass upon personal rights. A profounder knowledge and larger experience may thus lead to a substantially unanimous opinion among wise men as to the duty of abandoning the use of a given thing, not because all use of it is sinful, nor merely because they see that on the whole it is bad for them; but because they perceive that their indulgence in it tends to involve in peril those who have less self-control, and in general to give aid and comfort to the degrading forces of society.

In this way the Christian commonwealth, in the light of

Scripture, science, and experience, is constantly resurveying and more accurately defining the channel of virtue and well-being, and placing buoys on the rocks and reefs. If in this process we stop to analyze our own position and rights as individuals, we may say, as Paul did, the thing we are giving up is lawful for us, but it is not expedient; and by expediency here we do not mean a politic and worldly compromise for worldly ends, but we mean the most manly and benevolent action done by us in wise view of the effect of our example upon our fellows, and not as under law to man, but to Christ.

Apply these principles to the question of abstinence from intoxicating liquors for the sake of others. Every man of Christian principle at least will often see the fitness, if not the obligation, of abstaining from the moderate use which, if it does not benefit, certainly does not seem to hurt him, for the sake of his example upon his son, his intimate friend, or his neighbor, over whom he has influence, and who is in peril of slavish drunkenness. At the same time such a man may resent a demand made upon him by others that he *must* so abstain because his use is in itself sinful. The obligation to abstain does not inhere in the use itself, but in the circumstances which affect the bearings of that use upon others; and respecting these circumstances the man himself, though he may make a great mistake for which he will suffer, is the final judge.

But while this is true, it is also true that if he is a genuinely benevolent man he will not be apt to continue and justify himself in his indulgence on the ground (commonly adduced by moderate drinkers to relieve themselves from responsibility for drunkenness) that his son or friend in becoming a drunkard is not following his example, but is immoderately drinking whiskey, while he himself only temperately uses wine. The quality of self-sacrifice is not strained. We do not stand upon the letter of the bond when through the denial of ourselves we seek to remove stumbling-blocks from one another's paths. If we did, the world's finest deeds

would turn to ashes. We may often make an excuse for our action which will stop men's mouths but will not satisfy ourselves.

Even those who favor moderate drinking as the rule of life will thus in the concrete and personal case wholly concede the principle for which we are contending. Why then should they decline to admit its validity in wider spheres? If under the obligation imposed by the law of love a man may reasonably abstain for the sake of his family, may he not for the sake of a community or a nation? Our opponents will say that one cannot undertake to care for the effect of his example as an abstainer upon masses of people, and in unknown and unforeseen directions; that to attempt to do so is to make his abstinence perfunctory; that if the immediate personal relationship be left out of sight the force of the example vanishes. But this is not true in other forms of benevolent action. A man may refrain from extravagant dress or amusement, not because he knows of some one who thereby is likely to be put in peril, but because he wishes to set an example on the side of sobriety.

There is, indeed, a certain charm and force in self-denial directed to its immediate object. We should cultivate the privilege of this. But our occupations are now so specialized, and the organization of society so complete, that a very large part of our benevolence must be wrought at second-hand, as we may say. It is not therefore arid and mechanical. On the contrary a finer element is implied in such benevolence, for it demands a larger faith and sympathies that can stand alone.

But in point of fact the relationships, objects, and bearings of the self-denial implied in benevolent abstinence are not unknown. So universal and pervasive is intemperance that those who are affected in this matter by our example touch us on every hand. Of course in this as in other things some people have far wider influence than others. Yet from the chief magistrate of a great nation to the humblest laborer, every abstainer or moderate drinker has his own constituency upon whom his example tells.

But this is not all. The mischief of intemperance has well-known dimensions. It is not done in a corner. The well-nigh infinitesimal good and the almost infinite evil caused by the common use of alcoholic liquors are facts made plain to all by overwhelming evidence. The plague of drunkenness, or rather of alcoholism, can no longer be sneered at as the imagination of sentimentalists. Statistics of the hardest sort show that its blight touches every one of us in every department of our life.[1] It forces itself upon public attention at every turn, and compels every patriotic man to consider what bearing his personal habits respecting alcohol have upon the burning question, What shall be done to remove this curse? The lines of the issue are broadly drawn. In their face it is idle for any one to demand, before he abstain, that he shall see the person upon whom his indulgence exerts a baleful influence, or shall have demonstrated a connection between his use and the abuse about him like that binding physical cause and effect. Such a person is hardly open to the appeal which Paul makes when he says: "It is good neither to eat flesh nor drink wine nor anything whereby thy brother stumbleth, or is offended, or is made weak" (Rom. xiv. 21).

The circumstances do create the obligation to abstain, and in the last analysis every man must be his own judge of the circumstances; but to-day the circumstances, the facts, the tendencies, are so plain that if, as is admitted, practical abstinence is fitting and reasonable as a measure of self-denial for the sake of a son or friend in peril, it is fitting and reasonable for the sake of the commonwealth. We pass now to consider

III. Some of the Common Objections to Abstinence.

1. Abstinence from intoxicating beverages is said to be unmanly, ascetic, and contrary to the spirit of Christianity, which always inculcates self-restraint in the use of the things of this life, rather than a timid refraining from them. That

[1] Princeton Review, Jan. 1881, p. 83 seq.

this is the general principle of the Christian religion is very clear, but it is equally clear that the gospel makes ample provision for, and even urges, our giving up entirely things in themselves permissible or indifferent whenever these things cause us personally to stumble, or hamper our personal well-being or usefulness. Our Lord's injunction to pluck out the right eye, or cut off the right hand, as at times a reasonable measure of self-protection, and Paul's recommendation of the expediency of abstaining from marriage under certain circumstances, afford sufficient general charter for prudential abstinence. The gospel constantly recognizes the fact that man is not in an ideal, but in a broken state. It bids him achieve divine sonship with the use of all earthly things if he can, without them if he cannot. When our Lord tells one man to surrender his property, and another to leave the burial of a dead father, that they may become his followers, his command is simply the dictate of common sense on which prudent and effective men are acting every day without thinking of being especially virtuous, still less of being unmanly. Every one of us daily abstains from a multitude of things lawful in themselves, just because, relative to him and the ends God has set for him, their use is not good. In short, the expense, distraction, and risk incurred by even restrained indulgence in them are too great. It does not pay.

There is nothing super-pious, ascetic, or unmanly in this. It is simply sensible. When a man like General Grant always quietly abstains and turns his wine-glasses upside down at public dinners merely as a measure of good sense; and when thousands of the best and noblest in the land, with no thought of being better than their fellows, as a general rule practise abstinence because they see that as things are moderate drinking is not good for them or their children, it will hardly do to charge them with cowardice or with going contrary to the spirit of Christianity.

But it will be said that no one objects to the practice of abstinence by a single individual if he thinks it is prudent for him; that is not ascetic or unmanly. The objection is made

against abstinence on the part of a whole community. Is then a rule which is prudent when practised by one man evil and unmanly when under similar conditions it is practised by five or five thousand? So much for the objection as aimed against prudential abstinence.

But the objection is even more utterly invalid as directed against benevolent abstinence, for this, so far from being contrary to the spirit of the gospel contains its very essence. We are bidden by the example and precept of Christ and his apostles to sacrifice what may be a thing lawful, and even helpful or necessary to us, for the sake of others. All the sweetness and light in Christian civilization are the outcome of this principle. Here, again, what is a good principle for one man is a good principle for thousands. As we have seen, almost any Christian, at least, who advocates moderate drinking will admit that it is a privilege, if not a duty, to abstain for the sake of another under certain circumstances; but is this principle to be approved when embodied in the conduct of one man, and condemned as un-Christian when it is seen in the action of hundreds of thousands, the peers in intelligence and virtue of any in the land? These, knowing well all their rights in the use of alcohol, yet habitually abstain from its use, because from the soundest deductions of science and experience they see, as Colonel Higginson says, that "it is better for the health of nine tenths of the people never to take a drop, and that anything but abstinence sets an example which invariably proves disastrous to the hundreds who are incapable of self-control."[1] This is not asceticism.

2. It is objected against abstinence that it tends to weaken and pervert character, because it does not afford the discipline which a self-restrained indulgence in alcoholic beverages gives, and because it attaches to a mere expedient the sanctions which belong only to divine law.

It is no doubt true that in general a higher virtue is attained by a successful self-control in the use of dangerous things than by refraining entirely from them. But practi-

[1] Boston Daily Advertiser, March 10, 1880.

cally we are constantly striking a balance between the worth of such a discipline and the risk incurred in getting it; so that in point of fact every intelligent man and community quietly lays aside altogether many weights, because, as experience proves, the carrying of them involves more of evil than it yields of good. No one thinks it necessary in order to cultivate self-control to make great effort to use temperately these things which by long trial have been proved to be more productive of evil than good. We can pray "lead us not into temptation," and make every effort to avoid it, and still feel sure that we shall have all the discipline we want in the necessary on-going of life.

For example, the use of opium is not in itself sinful. It is a most valuable creature of God. In extremely small quantities daily taken for years it may be a "care-breaking" luxury, and even a saving-food. In the successful effort to use it thus temperately, a man if he had nothing else to do might gain great self-discipline; but in view of the infinitesimal profit and enormous peril which experience shows attend this use of it, is it cowardly, is it contrary to the spirit of the gospel, is it an ignominious neglect of a means of moral training, to abstain from it altogether? Let the judgment and habits of sensible men answer. The argument applies equally to the use of alcoholic beverages. If we were obliged to use them to make the most of life, or if their use were on the whole more helpful than injurious, the case would be different.

As to the second part of the objection, undoubtedly much mischief may be wrought by not placing abstinence on the right ground. Great care should be taken that it — a prudential and benevolent rule — be not confounded with the definite enactments of the moral law. Because the rule is put on a false foundation, or clothed with improper sanctions, certain consciences in breaking over it may be perverted and led to despise God's law. But even if this be sometimes the case the objection under consideration would have no weight, because it would prevent the establishment of any rules, for

all rules are liable to a similar abuse. If the rule be on the whole a good one, the fact that it is sometimes misconceived and abused is not a conclusive argument against it.

3. It is objected against abstinence from alcoholic beverages that our Lord by his example in making and using wine sanctioned our use of it. If by this objection is meant merely that our Lord's action indicated that the use of wine is not in itself sinful, but indifferent, and, like the use of other indifferent things, dependent for its moral quality upon the times, circumstances, and motive of the user, the objection is at once granted without invalidating in the slightest degree the grounds on which we have endeavored to place abstinence in this Article.

But the objection seems intended to mean much more than this. By the use of the word "sanction" in this connection the idea of authoritative enactment is covertly brought in. Webster defines sanction as a "solemn or ceremonious ratification; an official act of a superior by which he ratifies and gives validity to the act of some other person or body; establishment of anything as valid, or giving authority to it." Now to hold that Christ by his use of wine officially ratified, established as valid, and gave his authority to our use of it, apart from times and circumstances, savors of bondage to the letter. Does any one believe that the custom of wine-drinking was solemnly established as an institution of the Christian commonwealth by the action of its Founder? This kind of appeal to Christ's example has been and still is productive of serious evils. The fallacy of it consists in the assumption that our Lord definitely legislated for his people by his own acts. The absurdity of this will at once appear if we examine certain parallel cases.

For instance, Christ himself lived a life of absolute poverty, and even indirectly, if not directly, enjoined poverty upon his followers. Did he therefore sanction poverty in the sense of giving it authoritative ratification upon his people as a fixed institution? Many in the early and mediaeval church thought so; some here and there may still think so. But sound

Christian sense perceives that in this matter Christ did not legislate for his people, but only vividly illustrated principles, and that the Christian millionaire may follow his Lord far more closely in this respect than the mendicant friar; that there are circumstances in which poverty is a crime and riches a duty, and circumstances in which the exact opposite is true; and that except as setting forth and enjoining upon us the great doctrine of divine unselfishness, which we are bound to carry out whatever our circumstances may be, our Lord's conduct in this thing is not a law for us, and could not have been intended as a law.

Again, Christ practised absolute non-resistance to evil assaults, and even commanded it to his disciples. There have been individuals and sects who have regarded his example in this regard as a statute literally binding upon them as the rule of life. Certainly that example embodies a deep principle which every true Christian endeavors to realize, but obedience to the spirit of it may often demand that a man knock down his fellow-man, and the adoption of its letter by all who profess and call themselves Christians would bring society into anarchy in an hour.

Further, our Lord conspicuously cultivated association with the debased classes of the community — with depraved men and dissolute women,— so that this, like his wine-drinking, was made a reproach against him. The great law of divine love and human brotherhood thereby set forth the church has always recognized and sought to fulfil by her own efforts; but does any one suppose that because Christ did this, therefore the habit of doing it is sanctioned, made obligatory, or even permissible for others without regard to their relationships and purposes?

But why, then, should Christ's conduct in the use of wine be seized upon, isolated in principle from his other acts, and be regarded as ceremoniously ratifying upon us moderate drinking as a fixed rule of life, to which abstinence, if practised at all, must be looked upon as rather a forlorn and contemptible exception, fit only for moral and physical incapables,

when his more pronounced action and even precept in regard to poverty, non-resistance, and association with the dissolute is by no sound man thought to sanction them as a custom, but only to illustrate by them the great duty of self-denial, and to permit them for special ends under peculiar circumstances? A man who should attempt to justify voluntary poverty solely by the example of Christ and without the support of specific reasons would be regarded as a fool or a knave. In spite of the steadfast example and even injunction of the Divine Master, such poverty is now the decided exception among sensible Christian people, to be accounted for by peculiar circumstances. So far as our Lord's custom is concerned why should not wine-drinking be so?

No doubt if Christ had entirely abstained from the use of wine, as he did from the possession of money, his example would now be very vigorously claimed by multitudes as authoritatively sanctioning total abstinence. But such claim apart from other considerations would be wholly unreasonable and invalid. To urge his example as in like manner authoritatively sanctioning moderate drinking is equally unreasonable and vain. There is the same misconception, the same bondage to the letter, the same narrowness, in the one case that there would be in the other.

The truth is that the example of Christ leaves the use of wine, like the possession of wealth, precisely where the teaching of the Bible and of common sense leaves them, as things *per se* indifferent, but gaining moral quality by being indulged in or refrained from according to the motives of the individual, and the circumstances and tendencies of his times.

But it is said that in respect to the use of wine Christ's circumstances were essentially the same as ours. This might be said with far more force respecting the possession of property, but in fact it is not true of either. His nature, his powers, his mission, inevitably precluded that our Lord should be a model to be literally followed by his people. It is admitted that this truth has often been overstated to the damage of the church; nevertheless it is a truth to which we

constantly yield our practical assent. As the personal embodiment of the life of God, and as planting in the hearts of mankind the principles of that life, it was possible and necessary for him to do many things which it is impossible and absurd for us to attempt to do. Is it presumptuous for us to say, for instance, that it was necessary for him in bringing in a new dispensation thoroughly to break up the bigotry and formalism of the Jewish system by associating with publicans and harlots, and by eating and drinking wine; just as it was necessary for him in living fulfilment of the truth of self-sacrifice not to have where to lay his head, and to be led unresisting to the cross? So much for that which in his person and work separates our Lord from us.

But the contrast is in some respects even greater between his outward circumstances and times, and ours. In regard to the use of alcoholic beverages we have only to glance at a few salient points to see the immense difference in these circumstances. Consider the soft, mild, even climate of Syria, conducing to the extreme deliberation of Oriental thought and movement, and to life in the open air; and our keen, exciting atmosphere, with its violent extremes of heat and cold, stimulating nervous activity, and leading to highly artificial methods of living. Consider the occupations of the people of Judea, where agriculture, slow moving, with the most primitive appliances, was the chief thing, and commerce and manufactures were comparatively unknown; and our mechanical life, the herding of vast masses in the unnatural excitement of great cities and factories, the changed and abnormal conditions wrought in all departments by machinery, and the superlative intensity given to every phase of existence by steam and electricity. Consider the contrast in the beverages used: the simple red wine manufactured by the crude arts of peasants, and not possibly containing in any case more than seventeen or eighteen per cent of alcohol; and our distilled and doubly distilled liquors, our reinforced wines, our complicated chemical processes and appliances, by which liquors are combined, adulterated, and made up with

various poisons, so as vastly to increase the means of intoxication. The circumstances offer scarcely a point of likeness.

Drunkenness no doubt existed in Christ's time, and was a great evil; but that it could have had the dimensions which it now has is simply impossible. Observe that those who endeavor to prove the opposite are generally those who insist that the free use of light wines here and now would altogether do away with intemperance. Perhaps it would. But if so how is it possible that the drunkenness of Bible times, which was caused wholly by light wines, could have been as great as ours is to-day? The two theories hopelessly demolish each other.

But after all, this discussion as to the relative amount of drunkenness does not touch the main point. Admit, if you please, that there was as much drunkenness then as now. The question is not chiefly as to the amount, but as to the bearing and the results of such drunkenness. The very mechanism of modern life — to the highest degree intense, complicated, and interdependent as it is — makes not merely drunkenness, but, as we have already pointed out, those effects of alcohol which come far short of actual drunkenness, prolific, in a thousand relations, of consequences so disastrous as not to have been possible or even conceivable in the time of our Lord. Where then was the steersman of the steamship, the engineer, the reporter, the telegraph-operator, half of them working at night under the most trying conditions, guiding the tremendous enginery of our times, to whose steadiness millions of property and lives are constantly committed, and the delicacy of whose sight or touch may be wrecked at the critical moment, to the ruin of thousands, by two or three glasses of wine? An atom of drunkenness can cause more desolation now than an avalanche of it could have caused in the first century. Where then were the thousands of business men whose years are spent travelling hundreds of miles every week, and who daily work in the stress of an excitement unknown even fifty years ago? Where the millions under the fierce competitions of manufacture, trade,

education, politics, and social life, driven to the last pitch of endurance by steam and electricity, whose lives have no margin of repose, and in whom insanity and nervous disease are so common?[1] In a thousand ways unknown to the ancients the relations of modern life constitute a state of unstable equilibrium which a gill of alcohol can topple over to destruction. The train is laid. A spark can fire it. Indeed, we need not go back eighteen centuries to note the contrast we are pointing out. We need go back but one. A brilliant writer has lately said with scarcely a touch of hyperbole that "twenty-four hours of such responsibility and strain as now come upon the average American would have killed the strongest man the eighteenth century ever shone upon." Certainly alcohol has a destructive force now that it never had before.

Here it may be observed that those who advocate moderate drinking as sanctioned by the example of our Lord allege in objection to abstinence that it is no modern invention; that it was a custom centuries ago among the Hindus and Mohammedans; that it was practised before Christ by Rechabites and Nazarites, and in his time by the Essenes, and that he did not by his example give any approval to this exceptional method of religious devotion. Certainly he did not. One object of his coming was to break up forever the idea that the kingdom of God consists in meat and drink. But this objection does not even remotely touch the abstinence advocated in this Article. The abstinence practised by all these sects was a memorial, ascetic, ceremonial, or extra-pious abstinence. Modern abstinence is nothing of the sort. It is simply a hygienic measure of good sense and benevolence. It has no more to do with religion directly than have the latest rules respecting drainage and ventilation. In this sense it *is* modern. It is as much a product of this century as are these other principles and rules of good health and well-being. For it is to be carefully noticed that this absti-

[1] See pamphlets on The Insane Diathesis, and The Relations of Insanity to Modern Civilization, by Henry P. Stearns, M.D. Hartford, 1880.

nence has had its rise as a scientific and experimental necessity of the conditions that this century has developed. It has had its immense and beneficial spread in the full light of modern science, and during precisely the period, and among just the people who are more liberal in thought, and more intolerant and contemptuous than any other people in the world's history of everything merely ceremonious, monkish, or morbidly religious. The idea that in these times abstinence could live for a day as a mere ascetic observance among the intelligent men and women of every form of belief who now adopt it seems little short of an insult to them.

4. It is said that abstinence involves contempt of the moral teachings of the Bible; that it constitutes a departure from those teachings, and is an attempt to supersede them by mere human reason. The reply is that the real misconstruction and disparagement of the moral principles of the Bible come from those who assume that they are rules, and not principles; that their illustration is legislation; that they have not that power of adaptation which fits them to the changing conditions of mankind; and that under their tuition there is no progress in the moral sense and intelligence of society which are capable of applying these principles in entirely new directions and with new measures.

No plea has been made in this Article for perpetual and universal abstinence. Such abstinence may be neither possible nor desirable. Other lands and other times with different conditions from ours may not need it. We can well enough leave all that to the future, and to that science and experience which will have yet more to say on the subject. It is enough that a practical abstinence is called for here and now. But if the common sense of any age, or of any or all communities, shall clearly discern that universal abstinence is on the whole the best, does any one suppose that the ethics of the Bible forbid it any more than they forbid universal suffrage, or the universal preaching of the gospel by paid and well-furnished pastors and missionaries, or the universal admission of women to the profession of teaching, though

Christ told his disciples to go forth without money or wallet, and Paul said, "I suffer not a woman to teach"? Bible ethics are not best honored by making them mere rubrics.

5. It is objected that the principles of abstinence and its advocates are fanatical and tyrannical. Doubtless this great measure of reform, like every other, has its full share of overzealous; narrow, and uncharitable aggression. Doubtless there are those who put it on a wrong basis, who assume too much for it, and who insist upon it with unwarrantable sanctions, and sometimes with a domineering spirit. They are, however, exceptions, and they have large excuse in the almost infinite and seemingly incurable evil at which their efforts are aimed.

But after all this objection goes too far, and so overthrows itself. It is the stock argument of the conservative and obstructionist. It has ever been applied to all the principles and all the men who in any way have sought to rid their fellows of great burdens. Virtue and the rules of better living in every department always have a certain aspect of extravagance and oppression. From the promoters of village improvement to the agitators for civil service reform and the establishers of Christian missions, all who seek to bring in a better thing are either ridiculed or hated, or both. The abolitionists for years suffered this accusation. The advocates of compulsory education, of compulsory vaccination, of rigid sanitary inquiry and regulation, of the best plans of charitable endeavor, have all their turn of being denounced and branded as fanatics and tyrants, as urging some chimera, or trampling on some rights. The advocates of abstinence need not be dismayed at this charge. They need only keep their cause free from all assumption, from all false foundation, and be patient.

6. The final objection to which we shall refer is, that as a basis of reform abstinence is foolish, because it is impossible; that men everywhere have always habitually used some kind of alcoholic liquor, or some other narcotic more deleterious, and that they always will use it, and this uniformity shows

that in spite of its abuse its use is a necessity. The general answer to this objection is, (1) that a measure directed to the reform of any evil is not proved to be unwise or without value because it does not attain complete success; and (2) the failure to remove a given evil by no means shows that such evil is necessary. If the contrary of these two propositions were true, all effort for the elevation of mankind in any direction would be paralyzed.

But to reply more specifically, it is not true that alcoholic liquors are universally drunk. "Whole nations, Mohammedan and Hindu, use no alcohol or substitute."[1] It is sometimes affirmed that on this account these nations are effeminate and inferior, while the Northern and Teutonic, which are the dominant races, are all alcohol drinkers, the assumption being that they are strong by reason of their alcohol; but the fact is that their strength is from other sources, while their use of alcohol is admitted to be a prime cause of their degradation.

But besides these nations large numbers of the ablest, hardest, and most effective workers and thinkers, who lead in the centres of modern civilization and power, habitually use no alcohol; and thousands upon thousands, under the severest stress of anxious and incessant toil, declare that they are better off for being practical abstainers. These destroy the objection that alcohol is a necessity, even if they do not prove that it is an injury. Further than this, Dr. Parkes well says that the same argument which alleges that alcohol is a necessity "might prove the necessity of tobacco, which, for this generation at any rate, is clearly only a luxury. The wide-spread habit of taking intoxicating liquids merely proves that they are pleasant,"[2] the prime object of their use being, as we have already shown, to benumb the faculties so as to render them oblivious of annoying impressions.

It may well seem, as Dr. Parkes says, "incredible that a large part of the human race should have fallen into an error so gigantic as that of attributing great dietetic value to an

[1] Manual of Practical Hygiene, by E. A. Parkes, M.D., p. 277. [2] Ibid., p. 277.

agent which is of little use in small quantities, and is hurtful in large, ... but the argument though strong is not conclusive; and unfortunately we know that in human affairs no extension of belief, however wide, is *per se* evidence of truth." [1]

Inasmuch as alcohol, so far from being proved to be a necessity of the race, is admitted by the most dispassionate authorities to be the active cause of evils so great "that if it were unknown half the sin and a large part of the poverty and unhappiness in the world would disappear," [2] all just efforts to promote a practical abstinence from its use have a solid ground in fact and reason.

ARTICLE VII.

THEOLOGICAL EDUCATION.

No. VIII. — ADVANTAGES OF PRIVATE INSTRUCTION.

In the April number of the Bibliotheca we traced in a brief and rapid way the history of ministerial education in New England, from the founding of Harvard College in 1638 down to the establishment of theological seminaries in the early years of the present century. It was shown that the college itself for a long period from the beginning was regarded and used more as a theological seminary than as a college, according to our modern understanding of these names. The daily drill consisted largely of biblical exercises and a close study of the ancient languages in which the Bible was first written. In those early years it was considered that the work of preparation for the ministry was chiefly accomplished when the candidate had reached his graduating-day. Whatever studies might intervene between the end of the college course and the day of his ordination for the ministry were regarded rather as miscellaneous and optional than prescribed. Sometimes the young graduate remained a

[1] Manual of Practical Hygiene, by E. A. Parkes, M.D., p. 277. [2] Ibid., p. 270.