

CHAPTER XIX.

THE BATTLE WITH ALCOHOL.

FOR about half my life it has been my fate to be in opposition to the general custom of using alcohol in the form of wine, spirits, or beer as drink. What started the battle I am unable to say, inasmuch as I was not trained to the idea of the conflict by any friend or leader. I was not led into it by habit, as some have been, and of all things ambition or desire to shine in the contest has been the last provocative. The part I have taken has been to many objectionable from the commencement of the fray, and in a certain sense injurious to me.

I was brought up to believe in alcohol, and the brewing of October ale in my father's house is one of my earliest recollections; to me it was quite an event. The arrival of materials for the brewing was to my little mind an important matter; the preparations and boiling of the copper a delight. I watched the washing of the barrels, and fermentation of the malt with admiring wonder, and enjoyed the sitting up late at night, while the occurrences of the morning of the next day are

memorable. The neighbours would all come in to taste, in a wooden bowl, the new brew, or to sip the sweet-wort. I was allowed to use a little wooden bowl, and permitted to see the different classes of the fluid drawn off. The strong beer looked, when it was cleared and the yeast removed, like wine; but the middlings and small beer had to be strained before they were stored; then, some time afterwards, when they were ready, they, too, had to be tasted and tested, taps inserted into their barrels, and marks made upon the fronts that they might be readily recognised. It was a grand day. Beer-glasses were brought, of which I still retain a specimen—long glasses beautifully engraved with a depending ear of corn. With my dinner I was allowed to use a plate which I still have, and which later School Board reviews often reminded me of. On it King George III. was the subject of a well-devised picture. He was robed as a king, and seated on his throne. In front of him stood a sweet-looking, ill-clad little boy, who was receiving from him a book, and hearing the words: "I hope the time will come when every poor child in my dominions will be able to read the Bible."

I also recall that one old gentleman who came to taste and praise the new brew would pipe to us a song, which my grandfather, Richard Ward, who lived a jolly kind of independent life, used, I heard, to sing on similar occasions. His friends gave him the credit of writing the song, which

they said he sang in a fine musical voice; but whether he composed it or whether he borrowed it I could never learn. Anyway, here it is:—

“Says Plato: ‘Why should man be vain,
Since Heaven’s bounty has made him great?
Or why looks he with rank disdain
On those undeck’d with wealth or state?’

“‘Can costly robes, or beds of down,
Or all the gimp that decks the fair—
Can all the glory of a crown
Give health and strength apart from care?’

“‘See! through the air the meteor flies
And spreads along its gilded train.
When shot, it’s gone! Its beauty dies,
Dissolves, and comes not here again.’

“So ’tis with us, my jovial souls!
Let friendship reign while here we stay:
Let’s crown with joy our flowing bowls;
When Jove commands we must obey.”

At the end of the song the doctor of the district, it is said, invariably quaffed his cup, and the parson, doing the same, always said, “I never heard you to greater advantage, Mr. Ward. You should subscribe half a crown to the choir and the waits,” which I dare say he did.

The brewing of beer was not the only picture that influenced me in our little circle. My mother was pronounced on the matter of domestic wine, which she was proud to make and store away. She had her elder wine made from the berries of a tree, under the leaves of which we used to doze in summer weather;

cowslip wine made from the field flowers we used to pluck; mead made with malt and honey; currant wines of different kinds; and gooseberry wine from the fruit of that name, which nearly rivalled champagne. One of these wines would be brought out with cake; and there is still living a nobleman, far advanced in years, whom I remember seeing when I was quite a child, sipping the cowslip as he discussed an election in which he was a candidate, and for success at which he was canvassing.

These feastings, if I may call them so, were general. Scarcely a soul believed that there could be a world without wine or beer. At the annual club-feast beer ruled the roast; at the ordinary feast it did the same. The working man or woman expected their glass; and at the “statutes,” where servants were hired for the year, “beer-money” was the order of the day. The harvest supper was incomplete without beer; and a man would ask you for a glass if he only opened a gate for you and your horse to go through; also, if a person were faint or weak or sick in any way, alcohol was resorted to.

In the first case of confluent small-pox I ever witnessed I found wine and spirits familiar remedies, and whenever doctors prescribed they almost always ordered wine. They were not absolutely unanimous; for there was an Esculapian teacher—Dr. Cheyne—who said that when people were

actually sick, wine ought to be stopped, and ought not to be resumed until indications of recovery proclaimed it safe to give it. In Edinburgh also the illustrious Cullen and his school practised a kind of abstinence—a method which the erratic Brown, founder of the Brunonian System, opposed. But taking it all in all the doctors were in favour of wine; and I knew one compromising doctor who, foreseeing the disfavour into which blood-letting was passing, continued to bleed and at the same time administered alcohol freely, as if he thought the one remedy checkmated the other. Things could not be either mirthful or funny unless alcoholic drinks played their part. The Esculapian, under whom I entered the fraternity, gave alcohol its full credit as a reviver of wit and manners, and offered a good many clever illustrations. One night when he was toiling up a steep hill on his trusty steed he saw a man lying on the wayside grass. He dismounted, and, advancing to help, recognised the sufferer, not only by what he saw, but by what he heard—for it was dark. The man was a lay-preacher of one of the sects, and the words by which the doctor recognised him were those of a text from which he was so greatly accustomed to preach that the wicked said he could preach from none other.

“Why will ye die, O house of Israel? Why will ye die?”

“Why, get up from the ground, and don't die!” responded the doctor. “I know you! Come, get

up!” and so saying he lifted the drowsy man on to his feet, helped him on to the horse, with his face to the tail of the animal, took him to the nearest public house, and there made him preach the whole sermon to the assembled cronies, much to their delight, but to his own future discouragement and the loss of his best discourse.

There was on no side any lack of alcoholic drinks and usages. If two parties played at skittles or cricket, or had a race, it would be for “a half-gallon;” and any book that introduced sufficiently the pranks of the intoxicated, the better the chances of the book and of its publishers. *Squire Weston* was a “good 'un,” and the book *Pickwick*, which I have from time to time seen read by men up to the point of death, would be nowhere were it not for the cup that does excite and does inebriate.

In introducing these incidents I simply wish to show that in my early days nothing transpired to lead me to doubt the value of alcoholic drinks, except that I knew a man who, in his cups, lost for a wager all his flocks of sheep, and once saw a clerical lecturer draw from his coat pocket, with a part of the pocket itself, a lump as large as a cricket ball, from which he said, “the accursed stuff” could be distilled by heat. Neither of these events, however, affected my mind; they passed by me like an idle wind.

There was nothing in the treatment of the sick, as I learned it, that suggested a word of opposition.

Every one of my instructors was imbued with the idea that disease could not be met without alcohol, either as a food or as a remedy. Even the accomplished Dr. Andrew Anderson was in favour of a little spirit. I first saw whisky-punch as an addition to the professional table, and I first learned to become quite an adept at making it from a lesson I acquired in the art at the house of Sir John Rose Cormack at Putney at the hands of a famous botanist, upon whom some adventurous student had fixed the name of "Woody Fibre," by which he was generally known in his own immediate circle. There was never a dinner where I took an active part in which I was not selected as the connoisseur. The price of the dinner ticket might be high, but with plenty of wine—and good wine—it mattered little what the viands might be, for the wine would wash them down. We committed the folly of proposing and drinking our own healths in wine; and one gentleman who presided, and whose legs I had bandaged up in the morning—they being dropsical from alcohol—was sitting up in the evening with his feet resting on a stool, while his health and long life were toasted amid vociferous cheering and the declaration that he was a "jolly good fellow" by all who were competent to stand and sing it. But if anything painful had transpired we should have been touched equally by regret. I could laugh then because I did not appreciate the absurdity of a helpless man having his health

destroyed by the very liquor which was the damning cause of his illness; but I could equally have wept if danger had really arisen.

I recall yet another incident. There was a meeting of medical men in a large hall in Birmingham. We were congregated in numbers, and the organ pealed forth its sounds. I was marked as a young man who had just gained a prize and who had many friends. A little group of us—including the late Sir John Forbes, Sir Charles Hastings of Worcester, Mr. Nunnerly of Leeds, and some others—were conversing together in familiar terms, when suddenly there strode up the hall with a firm step a gentleman I did not know. I was struck by the stranger's nobility of look; by the sadness that clouded his brow, and by the calmness which he nevertheless displayed. He walked up the hall, with his beautiful old-fashioned buff coat buttoned, his hands crossed behind him, and as he scanned our little group Sir Charles Hastings left us to go and shake hands with him.

"Who's that, Sir John?" I asked of Forbes, who looked nervously on.

"Oh, that's the well-known Higginbottom of Nottingham," he answered. "Hastings is talking to him, and when he has finished his chat I will say a word to him myself."

Sir Charles Hastings was not long away from us. Forbes walked off, and I, curious to learn the history, inquired of Sir Charles about the stranger.

"What," said I, "has he done to make everybody so shy of him?"

"Nothing whatever, I assure you," replied Hastings. "He is one of the best practitioners in England; has made quite a notable use of nitrate of silver in medicine; is a man of true science; a Fellow of the Royal Society, and strictly honourable in all his proceedings; but unfortunately he has a 'bee in his bonnet'—he denounces wine and all alcoholic drinks, and is himself a 'total abstainer.'"

"What has that to do with it?"

"Nothing at all! I like the man," he replied, "for he has been useful to me as the founder of the British Medical Association. But here's Sir John back again. Did you have a satisfactory interview, Sir John?"

"Perfectly," replied Sir John, and, turning to me, he added, "I never could see any harm in the man."

"Sir Charles seems to like him, and I wish you would introduce me to him," I responded.

"I would with pleasure, though I almost fear it might do you no good. It does not hurt us old stagers, but you might not be equally invulnerable, and we've lost our chance, for there he goes."

Down the open path made by the critical crowd Higginbottom strode, speaking to no one and nodding only now and then to some old friend. It was clear he knew and felt his position: no one could help feeling it; and so he passed away, and I never saw him again.

When he had gone I heard enough about this curious man Higginbottom. There was one comparatively young man very much liked, it seemed—a goodnatured character who nearly split his sides on the subject, but who was not long before he succumbed to the enemy of his health and peace; and there was another strong man who denounced the offender in language such as only a wine-bibber can use.

I very quickly repaired to my own hotel, the "Hen and Chickens," recalling what I had witnessed—not to laugh or see any fun in it, but to reflect. I had seen a pilgrim father—a man who feared God, eschewed evil, and who would have been as ready to meet the rack or the fire as he was to meet the assembly through which he had passed, and I give this memory of him as sincerely as I hope any future pen may write it. But at the moment the scene had no telling effect upon me: the man, I thought, really had a "bee in his bonnet;" he must be wrong, and the majority, because it was a majority, must be right.

A circle of fine young men sat round the table of a friend of theirs in a country house which I was visiting professionally with a medical friend. It was eleven in the morning, and these men were lunching and "boozing." They partook freely of alcohol. In three years they were all dead. They partook generally too freely: that was the argument that ruled with me, and it mastered.

A poor, weak, ill-clad woman fell dead near Welbeck Street one cold day, and I was summoned. It was said, "Could she have had a glass of something stimulating, as wine, or brandy-and-water, she would have been saved." But this is what she had had, for a glass of spirits was the last thing supplied to her, and the post-mortem showed that there was still some alcohol remaining in her stomach. The revelation bore no lesson with it: it was part of the admitted experience, and the jury promptly returned as their verdict "Death from the visitation of God."

In the early sixties I became, as told, editor of a weekly journal—the *Social Science Review*—and all social movements and gatherings were referred to in its pages. The temperance cause could not escape notice. I was literally deluged with communications on the subject, and I carefully perused the articles sent me, but they did not affect me in the least. It is true I never reviled, but I could not avoid an occasional friendly critique. We looked upon total abstinence in our pages with feelings of pity rather than of anger. We exposed what we considered the extreme views of its promoters, and I suggested to them to spend their lost time usefully by trying to set up a system of temporary teetotalism, not only for the world to see how it liked it, but also for it to see how temporary abstinence suited. Let a person who felt he or she would be the better for abstinence take the

formal pledge resolutely for a short period—say three weeks, or even three months; if the abstinence did real good, and seemed to suit them, let them go on with it for the same periods or longer, or even for life. But if they began to "run down" or grow weary of it, and especially if the doctor thought so, let them throw up the practice conscientiously and consistently, and make known their experience. The idea was not altogether unsuccessful: some tried the temporary plan, thought it failed, and abandoned it; others found it at fault from the first, and did not go on with it, while a few found it so good that they continued with it until they were complete and permanent abstainers. One of this class was so converted that not many years since he wrote to me to say that he was obliged by the advice he had read, that he had gone on for over thirty years in the "right path," and that there was not a happier day than that "birthday" on which he had been led to test his fate as I had recommended. The true temperance fraternity on their side were not displeased; the members of it assured me that if their method were only tried, even for a short time, success would be sure to follow.

If anything, I went my own old way in these times more resolutely, if not more logically, than ever. I had written that my old friend Dr. John Snow, who had been bitten by the temperance cause—whose brother, the Rev. Thomas Snow, remained bitten by it until his life's end, a year or so ago—agreed

towards the end of his life to take a glass of wine. I knew the late Dr. Todd, who was fond of coming into my laboratory to see what experiments I was going on with, and he insisted on the value of brandy both as food and as medicine. I dined often with Sir Thomas Watson, M.D., and always found wine as a supposed necessary beverage. I breakfasted with a distinguished medical Professor at Cambridge, and discovered the Burgundy decanter supplied on the breakfast table. I travelled in the country, and was glad to see and taste the glass of wine that welcomed me at the first meal that followed my arrival. I did not, indeed, object to see, as occurred at some houses, the jug of ale, with bread and cheese, which sometimes appeared as a part of the tea-time meal, and which probably was the meal between dinner and supper before tea was introduced into this country.

Notwithstanding these predilections I had my rebukes, which were not wanting in character. On an extremely cold day the late Alexander Henry, a scholar of excellent repute, was walking with me from the nearest railway into Newport Pagnell. We were getting on well, but felt the cold air, and, passing a place where mulled drinks were sold, we spontaneously went in and had a modest draught. It seemed at the moment the very thing we wanted; but when we went out, and resumed our walk, we were so soon exhausted that we had the utmost delay and difficulty in reaching our homes. We

arrived quite collapsed, and although the warm fire rallied us, and the good food restored our strength, we were glad to find our beds and sleep off our depression. We were like the Arctic voyagers whom Admiral Sir Edward Belcher, Sir John Richardson, and Dr. Rae, the northern explorer, described to me as men beaten by the two powers that run together—spirit and cold.

Another rebuke lay in treatment. By one of those strange coincidences common to medical life, two patients suffering from acute carbuncle came under my care. They were both advanced in years and of almost the same age, about threescore and ten. They had both retired; but one lived in luxury; the other despised what the world usually calls luxury, and cared little for assistance—liked, indeed, to be left alone. The first, and most comfortably situated, and it might be presumed the safest, had friends and doctors all around him. He was treated *secundum artem*, and he was steadily supplied with wine and other stimulants. Nothing appeared to be omitted that could sustain life; and yet, despite all, he died—sank is a better word—he sank into death. The other, less numerously tended, and, some would think, less comfortable, although not an abstainer, refused stimulants in every form because he was ill. He suffered from a larger carbuncle, which discharged freely, and on water treatment, varied a little by milk and cooked fruit, went through a sharp ordeal, but recovered

splendidly, and lived on for seventeen years. One of my own children—a boy of the most active and intelligent nature—was taken suddenly unwell. I had the advice and assistance of physicians of my own immediate circle, and we left nothing, as we believed, undone. We treated with the best wines we could obtain, and yet our patient sank before our eyes. What the pang of his loss cost his parents none but those who have similarly suffered can tell; and though thirty-two years have fled, the sorrow is still alive.

I saw a person live to be ninety-seven years of age and die in what was really second childhood and natural decay, who, for sixty years, had never touched an alcoholic.

It would be possible for me to fill many pages with the memoirs of these rebukes were it necessary; but I only want to add emphatically that they had at first no influence on my mind. I thought rebukes natural occurrences, and so impressed was I of the value of—nay! the necessity for—alcohol, that if ever a patient wishing to insure his life came to me for a certificate and told me he was an abstainer, I did not fail to state the fact to the directorate, which I knew well they would accept as adverse to the claim.

At last, as I worked onwards in my own way, a medical substance to which I have referred—nitrite of amyl—came before me for investigation, and in time I was naturally led to the methyls or methylic

group, in which alcohol is included. There was not a particle of variation in research, and if I expected anything it was that the ordinary opinions respecting alcohol would be verified. The second member of the group was common alcohol, ethylic alcohol, or that fluid which forms part of alcoholic beverages; but some of its allies—methylic, propylic, butylic, amylic, and heptylic—did not escape observation.

It happened that I was, by another means, made unusually familiar, in a physical way, with ethylic alcohol in alcoholic drinks. One of the philanthropists in London had taken great interest in the amount of the spirit present in the beverages then being sold to the public, and from all parts of the metropolis brought some specimens of these beverages to me for analysis. My able assistant and friend, Dr. Frederick Versman, obtained for me from Dresden an admirable alcohometer that worked by heat, and set it up in my laboratory.

With a clear experimental foresight, as it seemed to me, that the temperature of the animal body would be raised or sustained by alcohol, the most careful trial on the point was instituted, and repeated over and over again with attention to every detail, when, to my surprise, the fact elicited was that alcohol does not raise the animal temperature. For a short time it causes a little glow and that sensation which, by the common people, is called tingling of the hands and feet, with temporary

flushing of the countenance, as if a faint blush were produced; but these symptoms invariably pass away, and the body loses its warmth, becomes in truth, cold—so cold that, if the alcohol be carried far enough, there is danger of death from cold. Cold and alcohol go hand in hand, and a complete reversal takes place from what is expected, while the products of respiration caused by internal combustion are reduced systematically. I laid these facts out at a meeting of the British Association for the Advancement of Science at Birmingham in 1866, Professor Sir Henry Acland being in the chair. Brisk comment was made upon them by Dr. Kelburne King of Hull; by Dr. Heaton of Leeds, and by the chairman and other debaters present. It was unquestionably the opinion that I had made a mistake in observation, and my report was handed back for correction. It was held to be absurd that alcohol taken into a living body chilled it, banked out the animal fire, and reduced the products of the animal combustion: but recurrence to the inquiry only confirmed the fact more, until at last it was not only admitted, but was held to be an accepted fact; proved by the experience of Arctic travellers; proved by the circumstance that if two persons were found insensible, the point whether the insensibility arose from brain disease or from alcohol could be determined by the thermometer, which rose if disease were there—brain disease—fell if alcohol had produced intoxication; proved by the observa-

tion that some children inadvertently rendered unconscious by drinking whisky were brought three degrees below their natural temperature.

That which to me at first was a wonder was fully confirmed by all the observations made, and I then studied the effect of alcohol on vital processes, with the result of discovering that muscular collapse and failure, which we see so perfect in the drunken man—the dead-drunk person—is but a failure in degree, commencing so soon as the first drop of alcohol is imbibed. I found that the smallest quantity interfered with muscular action, leading to muscular failure. I found also that it created digestive disturbance; that its effects on the nervous system were to produce disturbance, and to give no quality of strength or precision of motion. I was led from these to other observations which I have repeated in my published books and lectures, and I was induced to study the degenerations that occur in the tissues themselves by the presence of alcohol in them. It was a new field, although we had seen “gin livers” and found other modifications arising from alcohol. I now, for clearness’ sake, employed the words “alcoholic degenerations,” and also applied the word “alcoholic” to describe diseases—as “alcoholic phthisis,” “alcoholic heart disease,” and the like—a term which was extended by others to alcoholic paralysis and various forms of disease, as if, in short, there existed a pathological alcoholism, a statement too sad and too true. I also found,

in considering occupations as causes of bad health, that those who were most exposed to alcohol were the most exposed to the dangers of death. It was quite impossible to traverse the whole field of observation, it was so entirely different from what I had expected, and so convincingly revealed new phenomena. I heard all the moral denunciations against alcohol, and found that in principle they were correct; but here was the physical evidence, and what more did I require? The moral evidence did not stir me into action: it was impossible to find fault with it, and, properly stated, it was impossible not to admire it and give it sympathy. But the physical was the strong and immovable evidence telling that alcohol was not only quite unnecessary for life, but an enemy to life; and as that was my knowledge, so it was my duty to proclaim the truth. I did this in the old medical paper, the *Medical Times and Gazette*, designating alcohol as "a deceiver from beginning to end," and naming it "a temporary shroud, in which the ignorant man covers himself—a process as foolish as that of the man who, in dark caverns, should wander in search of illumination until all is night."*

For the half of a long lifetime it has been my duty at all hazards to make these revelations more and more distinct to the world, and I am neither ashamed nor tired of the effort. By tongue and pen I have denounced alcohol, and see no reason to cease

* *Medical Times and Gazette*, December 7th, 1869, pp. 703-6.

or to repent. I have tested its medical value in the treatment of human maladies, and, while admitting it to be a stimulant, a quickener of the circulation, have seen that the very act of using it in this sense is a mistake, causing the heart and the nervous system to wear out the more quickly, without giving to them any more capacity or any more sustainment.

I have, by election, taken the head of a medical society of hundreds of members supporting these views. I have, by request, been, and am still, physician to a hospital that receives all cases, and where we never use alcohol. I have tried the action of the other alcohols named before. I have tried the resisting powers of alcohols to electrical currents, and in various ways I have given to the alcoholic group of chemical substances all the attention in my power; but I have never been able reasonably to return to my earlier views and predilections concerning it. I have no prejudices in relation to it; no dislikes concerning it; no feelings of a personal kind for or against it; and if I could logically see the slightest value in the use of it I would employ it with the utmost satisfaction. If alcohol were good, and something else were as good, I would take or give the alcohol first in consequence of old associations and predilections; and if any brother physician could, with prudence and logical exposition, show me that there were occasions when alcohol was absolutely required as a weapon of our

medical armoury, no one would be readier than I to listen to him and arm in the same manner as he. But no less a course could lead me to conviction, and a temptation of the kind has never been offered or presented. I have stood the "hazard of the die" over and over again, and have not once been cheated or seen cause for regret. On the whole, everything has shown abundantly safe argument and practical benefit on the abstaining side and has proved beyond dispute the old proverb, "Wine is a mocker, strong drink is raging, and he who is deceived thereby is not wise."

To be as clear as possible it appeared to me, and appears so still, that in the construction of a living body, whether man or animal, the weight of the fluid, that under heat gives the motion which indicates life, must be a prime necessity. Water—not alcohol nor alcohol blended with water—is the fluid of the proper weight as well as of the proper diffusibility, and the one necessary thing. Water does not merely distribute the particles of solid matter; does not merely give form or shape; does not simply give flexibility; does not simply carry away the used up parts of the organism; but it expands and condenses so as to produce motion, and is, in fact, the cause of motion—the means of motion.

The living body is a water engine. It could not carry on the work it does on any other system. It is as much a water engine as a steam engine is, although I cannot deny that other fluids than

water will act as motors, for I have seen a spirit engine: but the body is not an engine of this class, and no one can treat it as such. Some try to make it one; live as if it were one, and at last get themselves into so morbid a condition under it they feel as if alcohol were the only natural fluid, even though fatal, so that the smallest accident may snap the machine or break the balance between mind and matter.

A certain temperature raises water to the heat required for the transformation of water into vapour or steam in the engine; and then, under correct adjustment, comes the action, like life, manifested in the steam engine. It is the same precisely in the animal engine itself, excepting only that a lower heat for evaporation is perhaps demanded; but it is water and nothing else that is called for. At the same heat a lighter fluid, like spirit, would be too evaporisable and would cause too much distension, so that if the parts which the vapour distended were as they are in a living thing, elastic, they would only act while the elasticity held good, and being too severely strained, would, as they often do, give way or burst. It appears indeed as if dead-drunkness and even something short of it were nothing more than the undue distension of vessels charged with the vapour of a fluid that has been driven off by the temperature of the body—a fluid not wanted if water alone played its part, as was originally intended. I have more than once

defined the phenomena of intoxication as being excited in the mechanical manner here pointed out, and I have explained that the philosophy of craving, or desire, for more and more liquor does not indicate central impairment, but that the consumer of the alcohol feels that he wants to live on a more ethereal fluid than that which nature supplies to him.

I would leave the reader to ponder well over this explanation of inebriety: it explains what he daily sees; it explains the nature of the mental shock of drunkenness; it explains the cause of unnatural distension of vessels and their too early failure in the inebriate; it explains the certain occurrence of organic lesions and the diseases of organs that take place under pressure; it explains congestion, vascular rupture, and sudden death; it explains effusion, and, above all, it explains why an animal engine, damaged by the constant work of a false fluid, becomes an engine permanently weakened, and calling for a lighter fluid than water, that it may work on from hour to hour.

In nature altogether I was forced to remark that water alone suffices for what has to be done. It is only men, and not all men, who ask for a modified mode of motion which they themselves must invent. All other living machines are water engines, be they large or small. The merest insect works on water; the largest mammal does the same—so that the mite and the whale are both water engines. Swiftmess,

strength, agility, endurance, are the results of the same motor fluid, and it is simply man who assumes to correct the order of the First Cause he pretends to adore as his Creator, Designer, and God.

It is often urged against us abstainers, who have the strongest, simplest, and best reasons for our beliefs, that we are not progressing in the way we ought to do. That is not my belief at all. I think we have progressed rapidly. We were the citizens a generation or two since of an alcoholic world. Alcohol literally, as well as nominally, ruled the roast. A man or woman who would not offer a glass of wine was branded as mean, ignorant, or vulgar. Not a medical consultation could be held but that in the consulting-room were found the wine-bottles and wine-glasses. They are rarely, if ever, there now. Every solemn act, down to the preparatory gathering at a funeral, was solemnised by wine. The solemnisation has disappeared. Feats of speed, of courage, of hard work, were encouraged by wine. The encouragement has lost its bearing. People who were about to insure their lives were rejected if they were abstainers. They are certainly now daily rejected because they are imbibers of the very substance that once secured them. All great responsibilities are accepted and welcomed if they are undertaken by abstainers, and they are considered vulgar who press the wine-cup. At one time ministers in the pulpit were in fear whenever

they raised their voices against the use of strong drink as a beverage or sustainer. Now they compete in speaking against drink wisely and well.

The greatest change, however, I have observed is in medical opinion. I recall most painful scenes in regard to physic. It was impossible to broach the subject of avoidance of strong drink without some insult or indignation. I had, for instance, an old friend, who, with other friends at table, proposed to give George Cruikshank and myself a dinner round the Aldgate Pump, and I saw daily the manner in which abstaining men were treated, while in the present hour nothing is ever mentioned at table that could annoy the most fastidious. You may even take a part in a masonic banquet and not hear an adverse syllable because you happen to abstain. The bills of a public dinner are printed as at a given cost, exclusive of wine—a proceeding of the utmost significance, as testifying change of sentiment to such an extent that a cost of £2 14s. per head, which I once had to pay, has fallen to 10s., with a better fare than was given at more than five times the money.

A most important change has also taken place in the treatment of the sick. Wine, wine, wine, was the cry of a quarter of a century ago, and the head was despairingly shaken if the liquor were not dispensed. Brandy was the so-called "sheet-anchor." It has been all but universally taught that, whatever could be said about total

abstinence amongst the healthy, alcohol was nevertheless a remedy in the treatment of disease. "Give wine unto him who is about to perish" is a saying that has rarely had its equal in repetition. The saying is going out, and from many has gone completely. It was bound to go in the course of time, as men began to consider that what was not good for the healthy might not be good for the unhealthy; while the theory of medicaments as special agencies began to retreat from the medical mind, and prevention commenced to take the place of cure. At last alcohol, even as a remedy, has ceased to retain influential sway, either as a food or as a medicament. As a logical consequence I have witnessed two events: a hospital erected from which alcohol is practically excluded, and a society formed consisting of medical men who treat the diseases under their care without alcohol. At the same time there have also gradually appeared medical men who, although they do not think it wise to denounce alcohol publicly, or to belong to any institution that is adapted to teetotal principles, are yet strong in their own abstinence, and, whenever they see the opportunity, are willing to treat the sick on abstinence principles. There were, and are, hospitals in which alcohol still finds its place, and at times the nurses may be met carrying their trays with the measured glasses of spirit for the patients as it may have been prescribed.

"Why," says abstaining physician A. on this

point to his colleague B., "why do you gorge the lungs of the patient with pneumonia by giving him brandy, which can only have the effect of making his heart pump in more blood, of which there is too much already?"

"Because I have been taught to do so," replies B., but in a manner that expressively signifies his doubt and makes him think and hesitate.

And so things stand, while the alcoholic public, ignorant of the merits of the controversy, waits for the Faculty to decide, making excuses of all kinds, and wondering how it will all terminate.

Abstinence, meantime, marches on in physiological order. The society, of which I have the honour to be president, reaches nearly five hundred in numbers, and young men student-associates keep on adding their names. The hospital, in which I am senior member of the staff, continues its course. In twenty years it has used alcohol seventeen times only, and for some time has never resorted to it at all. In my department I have rigorously insisted that severity of the case shall be the first reason for admission, and, that the experience may be as fair as is possible, I have forbidden, not only the administration of alcohol, but of any substitute for it, and in no other establishment in the world are the curative results better.

So far every movement is progressive and satisfactory, leading to the consummation we, who are engaged in the battle with alcohol, would expect.

We are strong; we have divine nature as our commander-in-chief; we win as we encounter or as we are encountered; we have no fear of defeat, and the people look on fairly, if not ecstatically. Let it not be supposed, however, that, with us who have led, it has been all glory. Far from this, it has been all toil and danger. For my own part I remember nothing like the mischief that befell me in 1869, when I made the first sortie. Before then my lecture-rooms had been filled by medical men, who liked to see new experiments and to listen to what might now be styled "post-graduate courses." Afterwards the rooms were simply vacant. From the outside world the sick sought me: I never sought them, never jockeyed anybody, doctor or patient—and life was on the crest of the wave. The charm ceased so soon as I declared for the principle of abstinence, and nothing could have been more disastrous. In a city in which I had once given a demonstration on chloral, a grand supper was spread for me; an eminent medical citizen was in the chair, and I was toasted with highest honours by one of the largest and liveliest assemblies I have ever seen. A few months later—it was by accident—I happened to be present at an important ceremony in the same city, meeting the same men; but I was marked, like Higginbottom, with the sin of disbelief in the ancient faith, and was known by only one friend. The others kept at that cold distance from me at

which I had seen him placed, and I do not hesitate to say that his conduct gave me comfort and resolution. I had done none of them a shadow of wrong, and I had left them all in peace and happiness; but I had let nature lead me, and was no longer one of them. Such has been the effect of my altered views for many a long year; it was no more than might have been expected, and no more than has had to be gently tolerated.

The battle with alcohol still rages. We hear the wild cries for and against it, and I am in the front of the battle as firm as ever; but I keep to my quarter of it, mixing with those who stand on the physical side. It is not a battle that will last many generations, because our alcoholic opponents must give way. They fight wildly, trusting in their own numbers, wealth, and influence. In another age it will be thought wonderful how the battle could have been fought at all, and alcohol will fall into historic oblivion both as a food and a medicine.

From the moment when my own eyes were opened to what I felt to be the truth I can faithfully say that not a stone has been left unturned in support of the cause I was led to espouse. I explained my views in every place I could and in the most open manner. I lectured on the subject in every available spot in our islands, visiting and traversing Ireland and Scotland, as well as England and Wales, on behalf of the crusade, addressing, in twenty-five

years, great multitudes of our race—it has been estimated amounting altogether to more thousands than I dare venture to state. In these addresses nothing was held back, nothing put forward, but what was duly weighed, so that they fell short of hesitation on the one hand and exaggeration on the other, yet showed that a world without alcohol would be, not only a happier world than we have seen, but a more active and healthy world than an alcoholic.

I have never denied that alcohol may be a medicine when properly understood in regard to its action; but it must be employed either in determinate and distinct doses with water, or in measured combination with other medicinal substances. I have treated with it occasionally on this basis in medical practice, and have observed the important fact that, as a rule, better results were obtained when it was omitted altogether. At the same time I never entered into personal controversy with those of my medical brethren who, thinking their skill strengthened by a continued administration of it with observation of its action, let it run as a stimulant amongst stimulants, and hold that direct stimulation may be an aid to those environments in which, in emergencies, we place the sick, so that, as far as we can arrange, they cannot die—the *summum bonum* of our art. I have been always ready to use alcohol in a commonsense and harmless manner, and remain in the same mind in respect to its services as an antiseptic, a local counter-irritant, or a medium for remedies we could

not use unless it dissolved them equally and carried them effectively.

In the end I wish it quite to be understood that I fully admit what is commonly called a stimulating action. For a short time it quickens the motion of the heart; whips on the circulation; excites the nervous system; raises temporarily the warmth of the body, and seems to urge on the processes of life. But this expedition of the vital processes does not convey to me the mending of them or their maintenance. If it did, alcohol would be remedial without the dangers it so systematically induces.

NOTE.—One remarkable advantage of the temperance movement has been its influence in bringing men of different sects, creeds, and positions into common action. I have attended meetings in which representatives of different creeds, and of Medicine and Law, have joined in one object. The union has also brought together Jew and Gentile, Parsee, Buddhist, and Mussulman. I was strangely affected on two occasions by what transpired. I heard, the Chief Rabbi discussing with English clericals a lecture of mine on the Mosaic Sanitary Code in no less a place than St. Paul's Cathedral; and in another instance I was still more personally affected. The Jewish community invited me to preside and to distribute the prizes at one of their schools. I did so; and after the ceremony the choirmaster begged me to sit another moment, and, turning to his choir, bade it sing to me, without any prearrangement, two verses composed by the late Rev. Lee Richmond, beginning

“Forgive, blest shade, the tributary tear,”

verses which, fifty years ago, I had had engraved as an epitaph on my own mother's tomb, and which I had never heard or seen from that time. It was a touching indication of the communion that has commenced to exist between Christian thought and Jewish sentiment and sympathy.

CHAPTER XX.

THE NERVOUS CENTRES AND EXPANSES.

THE opinion that has been generally put forward in my time, and which has been accepted for a long series of years—I had almost said ages—is that the nerves of the body spring, as it were, from the brain as a centre, or from the elongated spinal cord, and, spreading out in all directions, return to it. We have been told with great minuteness of the construction of this cerebro-spinal system; we have examined it after death; we have examined it experimentally in various ways, and, practically, it has been the one nervous system. We have known, however, of another nervous system, the ganglia of which are planted in the body near the great vital organs, like the heart, the stomach and liver, and which has had given to it the name of the “sympathetic”—the organic, or the vegetative system. Its nerves have been traced from its centres along the blood vessels to their extreme points. It was a nervous system that especially interested the great Bichat, and many have followed his descriptions; but it cannot