

WBD

T769t

1864

THE
TRUE TEMPERANCE PLATFORM;

197

OR AN

EXPOSITION OF THE FALLACY

OF

ALCOHOLIC MEDICATION;

BEING THE

SUBSTANCE OF ADDRESSES DELIVERED IN THE QUEEN'S CONCERT
ROOMS, HANOVER SQUARE, AND IN EXETER HALL, LONDON,
DURING THE SESSION OF THE INTERNATIONAL
TEMPERANCE CONVENTION, SEPTEMBER
2, 3 AND 4, 1862.

BY R. T. TRALL, M. D.

TO WHICH IS ADDED A DISCUSSION BETWEEN DR. TRALL AND REV.
J. C. HURD, M. D., G.W.P., OF FREDERICTON, N. B. ON THE
MODUS OPERANDI OF ALCOHOL.

LIBRARY
SURGEON GENERAL'S OFFICE

JUL-21-1898
161875

NEW YORK:
R. T. TRALL & CO., PUBLISHERS,
NO. 15 LAIGHT STREET.

LONDON: WILLIAM TWEEDIE, NO. 337 STRAND.

1864.

Anney

WBD

T769t

1864

Reel 176-26-1

Entered according to act of Congress, in the year 1864, by

R. T. TRALL & Co.,

In the Clerk's Office of the District Court of the United States for the Southern District
of New York.

P R E F A C E .

I HAVE long been of opinion that the drug-shop is the parent of the dram-shop; that so long as alcoholic medication is prescribed by physicians, alcoholic beverages will be dealt out by rumsellers. But the question which underlies this argument is: *Is alcohol useful as a medicine?* And the primary premise of all is, What is the rationale of the effects of alcohol? involving of course what is commonly termed its *modus operandi*. And on learning that the relation of alcohol to the living organism, involving what is called its *action*, but more properly the *rationale* of its effects on the human system, was likely to be a prominent topic in the discussions of the International Temperance Convention, I could not resist the temptation to meet the friends of the Temperance cause in London, and endeavor to aid them in settling the vexed question which underlies our reform, and which must be disposed of before we can ever have a rational basis on which to predicate final success.

Many of the details and illustrations contained in the paper I had prepared to present to the Convention were omitted in the addresses for want of time; but the principles, as affirmed in this work, were there very fully presented, and, I am very happy to say, were very warmly applauded by the people, although they were very coolly disregarded and evidently disliked by most of the medical gentlemen present.

A hasty sketch of my remarks being published in the Journal of the American Temperance Union, attracted the attention of a reverend and medical gentleman, Dr. J. C. HURD, of Fredericton, New Brunswick, who offered himself as the champion of alcoholic medication, and volunteered to refute the positions I had advanced. I was very glad of the oppor-

tunity to discuss this subject with a capable opponent, and more especially with Dr. HURD, as he occupied the honorable and influential position of Grand Worthy Patriarch of the order of the Sons of Temperance, for the Province of New Brunswick. A discussion was therefore commenced between us in the columns of a temperance paper published in Fredricton, called *The Philanthropist*, and continued until such a *pressure* was brought to bear upon the editor as to induce him to bring it abruptly to a close. Determined, however, that the world shall have the benefit of the arguments *pro* and *con*, I have added the whole discussion as an appendix to this work, with my reply to the last article of Dr. HURD, which I was not permitted to publish in *The Philanthropist*.

That the medical profession and the world are laboring under a most terrible delusion with regard to the remedial uses and *modus operandi* of alcohol, I have no shadow of doubt; and that this work will assist the friends of temperance to see the truth as it is in Nature and Science, is the earnest prayer of

R. T. T

HYGIENIC INSTITUTE, }
No. 15 Laight street, New York. }

THE TRUE TEMPERANCE PLATFORM.

ADDRESSES

DELIVERED IN THE QUEEN'S CONCERT ROOMS, AND IN
EXETER HALL, LONDON, SEPT. 2, 3, AND 4, 1862.

Mr. President, Ladies and Gentlemen: I feel that I have a duty to perform which no one else is likely to perform; a message to deliver which is vital to the success of the Temperance cause. In the good Book we are taught to lay the axe to the *root* of the tree of that which we desire to remove or destroy. This has not yet, I think, been done in relation to this dark and overshadowing Upas of Intemperance. But I believe the time has at last come when this can be done effectually; and here and now seem to me the auspicious place and opportunity. And if I have any special mission to the World's Temperance Convention, I am sure that it is to direct attention more particularly to the *root* of the evil we deplore, that the axe of truth may at once sever its connection with the earth it has so long cursed and despoiled.

Good men have indeed long and faithfully warred upon this mighty tree of evil. They have stripped off many of its poisonous leaves; they have crushed its malignant flowers; they have curtailed its hideous branches, and diminished its venomous trunk. But they have not destroyed it; they have not touched its vital spot. It still grows rank and heaven-defying, and sends its blighting blossoms and withering influence over all the nations of the earth.

The great Temperance Army has achieved many and glorious triumphs. It has done incalculable good. Its apostles and its martyrs and its living heroes have their names embalmed in the hearts of grateful and admiring millions; and their name and fame are like "stars of the first magnitude" in the moral firmament. They have agitated thought; they have lessened the streams of dissipation; they have saved multitudes from drunkards' graves; and they have restored health and happiness to many desolated homes.

But still the tide of intemperance rolls on, gathering here, swelling there, destroying everywhere. Why is this?

Have we not had many and mighty agencies in the field to oppose it for half a century? The labors of the philanthropic, the treasures of the benevolent, the prayers of Christians, have been liberally and earnestly bestowed. Kings and queens, princes, lords, presidents, governors, legislators, and statesmen, have given their names, their influence, their authority, and their statutes for Temperance. Our reformatory machinery has been world-wide and immense.

I am of opinion that there has been already power enough expended—power of heart, of brain, of muscle, and of money—to have utterly exterminated the rum-fiend from the face of the earth, if it had all been applied to the best advantage. Most of it has been directed to the *fruit* of the tree instead of its *root*. We have aimed, chiefly, to mitigate the *consequences*, rather than annihilate the *causes* of intemperance.

But, has our cause made any real progress? Let us contemplate the subject in all of its aspects—its worst as well as its best.

REFORMING AND DEFORMING INFLUENCES.

Have the *reforming* influences at work in society gained on the *deforming*, so far as our question is concerned? As I read the signs of the times, and interpret the lessons of history, the adverse agencies have never been so fearfully preponderant since the day when the simple-minded Puritans of an American colony raised their voices against the landing of a

whole hogshead of rum on their shores, lest it should corrupt and debauch the people!

True, temperance agencies and organizations have become established institutions all over the civilized world; and in some localities they are now doing a good work. And it is true that, in seasons of excitement, when a Gough or a Matthew has arrested the public mind, men have come up to the pledge, as the rushing winds gather at the call of the storming; but in a little time they have fallen away like the leaves of autumn.

It is true, too, that there is in many places, much less of the grosser manifestations of drunkenness; but in hundreds, if not in thousands of places, intoxication and debauchery exist more generally, and in a more insidious, and, therefore, more dangerous form.

SUBSTITUTES.

And the very worst of all is the fact that so many of those who renounce alcoholic beverages, resort to tobacco or opium as a substitute, thus sanctioning the principle that artificial stimulus of some kind is useful or necessary. Now, alcohol should stand or fall on its own merits or demerits. If it is a good thing, let us have it; but have nothing to do with substitutes. The substituted poison is often worse than the alcoholic. Why should any one think of a substitute for an evil? It only needs to be let alone. The person who is addicted to profane swearing, or accustomed to indulge in lying or stealing, might as well ask us, what he could do or have, as a substitute, if he should abandon either of those vicious habits! We cannot build enduringly on a false basis.

In New York, we have measurably, in a twenty years' campaign, diminished the use of rum, brandy, wine, and cider; but "dietetic gin," endorsed, too, by medical men, has found its way into all the apothecary shops and corner groceries; immense breweries, not insignificant rivals of your far-famed "Burton ale" establishment, are springing up all around us, like mushrooms of a night; and the detestable "lager" threatens to deluge the land.

EXTENT OF THE LIQUOR TRAFFIC.

It has been estimated that a tax of six cents on each barrel of "lager" retailed in the city of New York, would give the Liquor Dealers' Society a fund of one thousand dollars a week with which to hire lawyers, manufacture voters, and operate on courts and legislatures.

And how are you in London? How does your metropolis—your moral center of the intellectual world—compare with ours? I read in a late Journal of the American Temperance Union, an extract from one of your Journals, stating that London contains and entertains 18,853 gin and beer shops—1 to every 160 of its 3,000,000 inhabitants, including women and children; while there are of baker's and butcher's shops only 1 to 966 persons. You have six groggeries to one bread and meat shop. When was it ever worse with you? Can it be that the habit of liquor drinking is diminishing, either in New York or London? The figures I have adduced certainly indicate an opposite tendency. If straws show which way the wind blows, I may remark, wherever I travel, liquor-drinking seems to be the rule, and abstinence the exception; and I must add, that, more than three-fourths, and probably seven-eighths, of the cabin passengers on the "City of Manchester," on our trip across the Atlantic, drank liquor at table, and many of them between meals. Some drank in the evening as a *somnific*; and in the morning as an *eye-opener*; and in bad weather as an *anti-fogmatic*; and in good weather as a *stomachic*. Some drank with unusual frequency to prevent sea-sickness; and when they became sea-sick, they drank excessively to cure it. And then they felt themselves obliged to smoke cigars to *mollify* the effects of the liquor; and this required them to season their victuals enormously with pepper, salt, mustard, vinegar, etc., and this created more thirst, necessitating extra grog; and the extra grog demanded more cigars, and thus the circuit, therapeutical or toxicological, was complete

And as though all this was not enough, I saw a dish brought to the table (third course) in a flame of burning al-

cohol. It was called "Yorkshire pudding." I know not how it tasted, for then and there as everywhere and always, I "kept the pledge."

So far from alcohol preventing sea-sickness, I noticed that no one of the few teetotalers on board complained of "nausea and vomiting" at all, while those who drank the most liberally were the first to "lie around loose" when the weather became rough. For myself, I can truly say that I did not have the slightest symptom of sea-sickness, although it was my first appearance on the stage of "Old Ocean."

"Alcohol replaces a given amount of food," say the chemico-dietetico-physiologists; but it was proved, as it had been before, that those who took the greatest variety and quantity of victuals—who went nearly the entire round of the five courses—were those who drank the most liquor. Those persons also drank a great deal more water than we teetotalers had any occasion for, thus unduly distending the stomach and provoking sickness—a principle ocean travelers will do well to make a note of.

The destruction of food-material, consequent on the manufacture of intoxicating drinks, is immense. The waste of bread, from this source, can scarcely be imagined by those who have not closely studied the subject. In our grain-growing Western States, the whisky distilleries are numerous and extensive. I saw, a few months since, on the banks of the Illinois river, at Peoria, a mile of distilleries, where bread-material enough to supply two or three such cities as London, and to feed and even feast every pauper on the earth, is annually converted into alcoholic poison. But the evil does not stop here. Immense droves of swine are fed and fattened on the offal at these establishments, and the scrofulous pork resulting therefrom is sent to the cities to engender disease, and sow the seeds of diptheria, tape-worms, putrid fevers, cachexies, and premature death.

THE CURSE OF THE NATIONS.

Statistical data show that the four leading powers — Great Britain, France, Russia, and the United States—expend annually one billion dollars for that triune demon—alcohol, tobacco, and opium. This is only the *direct* expense; the indirect is certainly as much more. Two thousand millions of dollars a year worse than thrown away! Need we wonder at the degradation of the toiling millions? Should we not rather wonder that “war, pestilence, and famine” are not more frequently their lot? What would this sum accomplish, what could it not accomplish, if applied to useful purposes, to productive, instead of destructive industry? It would educate every child, provide for every pauper, reform every sinner, and furnish an independent home for every being on earth. It would soon make the whole world what Eden once was, and in a few generations at most, work out the problem of “Paradise Regained.” It would pay off your national debt in two or three years; and it would pay off the national debt we are now incurring in consequence of the gigantic civil war now raging in our land, in less time than it takes to create it. Applied to internal and international improvement, what magnificent results might be expected! You might soon cleanse all the cities, dry up all the swamps, drain all the marshes, destroy all the miasms, and abate all the sources of pestilence throughout the world. You might in a short time construct a tubular bridge from Dover to Calais; you might in a single life time almost level Mount Blanc, and tumble the Alps into the Mediterranean. You might in less time than Methuselah lived take the Highlands of Scotland on your side, and the Rocky Mountains on ours, and fill in the Atlantic so as to build a turnpike from New York to Liverpool, one hundred miles wide, with a railroad and a row of villages extending the whole length! And last, but not least, you might so cultivate Australia, or Africa, or Asia, or India, as to raise cotton enough to supply all Lancashire, and then you would not have to mind our little affair with the rebels!

The Dean of Carlisle has calculated that human beings consume two million tons of tobacco, annually, in chewing, smoking, and snuffing. This, at \$0.25 per pound—the retail price is much more—costs over \$1,000,000,000; and the advocates of tobacco-using claim that there are already one hundred million of smokers. This is “advancing backward” at a rapid rate. In three hundred years more, if this thing goes on unchecked, the whole human race—men, women, and children—may become tobacco-smokers, and the road to ruin will be quick and sure. Already tobacco is used by ladies in our large cities, in the form of snuff and cigarettes, to an extent that would astonish, if not appal the public mind, if it could but see and understand it.

These statistics, taken in connection with the facts that, the use of tobacco is rapidly increasing among the youth, and even among the children of the rising generation, * and that alcoholic medication, under the auspices of the medical profession, is now rapidly on the increase, show that, however much we have accomplished, King Alcohol still holds the vantage ground.

The root of this evil is alcoholic medication. The stronghold of intemperance is in the false doctrines of the medical profession. There is the Africa into which I propose to carry the war. It is there that the final battle must be fought, whether we come off victors or vanquished. You can never stop alcoholic drinking, until you stop alcoholic medication, *never, NEVER.*

A POSITION DEFINED.

I have no quarrel with medical men, nor with physicians of any school, at least not here. I respect the profession; indeed, I am a medical professor myself. My issue is a scientific one;

* One month after attending the International Temperance Convention I attended the annual meeting of the British Scientific Association, at Cambridge, England. Among the papers read in the sub-section on Physiology, was one against the use of tobacco, and in the discussion which followed, every medical gentleman present, who spoke on the subject, advocated the use of tobacco, pretended that its moderate employment was hygienic, and promotive of bodily comfort, mental vigor, clearness of ideas, &c., &c. If such is British Medical Science, need we wonder that tobacco shops in London are as numerous as liquor shops, and even more so?

it is with the false doctrines promulgated by the medical schools of the civilized world. And in the discussion of this subject, I shall allege nothing against the popular medical system that is not essential to my argument, and that is not sustained by all the scientific data applicable to the subject, and also by the testimony of the best medical authorities in the world in general and of Great Britain in particular—your Gregorys, your Coopers, your Reids, your Goods, your Baileys, your Abernethys, your Evans, your Ramages, your Franks, your Marshall Halls, your Wakleys, your Bostocks, Jamiesons and Johnsons.

And I take this position: All of the facts, argument, logic, theories, assumptions and experiences, which are adduced in favor of alcoholic liquors, as medicines, may be adduced, with equal cogency and equal propriety, in favor of alcoholic liquors as beverages. Alcoholic medicine and alcoholic drink must be proved or disproved, rise or fall, go or stay, together. Like Satan and Sin, they are “one and indivisible.”

The effects of intemperance may all be summed up in few words—vice, crime, pauperism, individual debasement, social corruption, and national decline—and they are all plain and palpable, all see them alike and feel them alike. There are no two opinions with regard to them.

But the causes—I mean the primary causes—are more obscure. They have never been fully recognized by the leaders of the Temperance Reformation.

We trace, of course, the evils of intemperance to the use of intoxicating drink; and we trace the use of intoxicating drink to morbid appetite; and we trace morbid appetite to unphysiological habits; and we trace unphysiological habits to fashion; and we trace fashion to public sentiment; and we trace public sentiment to —

We must go one step farther: What is the cause of public sentiment? The rumseller? O, no; he merely panders to it. So far as mere liquor-drinking is concerned, he rather influences popular feeling against it. His nefarious traffic is everywhere regarded as odious and execrable. His very victims

regard his occupation as disreputable, abominable. Pauperism, midnight brawls, wife-murders, starving and freezing children, the prison, and the gallows, are always and inseparably associated with the idea of liquor-selling. Probably there is not a single human being on the earth, of mature age and ordinary intelligence, who thinks of the rumseller at all, who does not think his character depraved and his manhood belittled by his calling. His most intimate associates despise *him* to a degree, however much they may, in yielding to their perverted instincts and morbid appetences, encourage and patronize his trade. The most degraded sots that hang around his door, abhor both him and his traffic, even while, with bloated face and trembling hand, begging for "one glass more." The rumseller does not even respect himself. *He* make public sentiment! Does the man, who takes the image of his God — his fellow-beings, as they "walk erect with face upturned to heaven," and transforms them into vagabonds, maniacs, devils, make public sentiment? And then his miserable horde of customers, as they stagger to and fro, and swagger around his groggery, serve rather as frightful examples to educate the people to loathe and abhor his business.

Yesterday, I walked through your magnificent Exhibition building, covering more than twenty acres of ground, where are collected the things of use and beauty from all the nations. Every trade, every art, with one exception, was there represented. Every person who has made anything new, or improved anything old, gratifies his just pride, and subserves his true interest, by displaying to the public gaze the invention of his brain or the workmanship of his hands. Yet there was one exception. There was no place found in that wondrous temple for the rumseller. He has not there exposed his work to approval and criticism. He has taken out no patent for a new principle in drunkard-making. He has applied for no caveat for an improved method for manufacturing sots and vagabonds; no "model" maniac stood there to advertise the place where others could be had; no case of

delirium tremens was there securely chained to the floor or safely locked within iron bars, reminding the spectator of the horrid visions of the raving madman as described by Dickens:—

“There were insects, too, hideous, crawling things, with eyes that stared upon him, and filled the very air around, glistening horribly amid the thick darkness of the place. The walls and ceilings were alive with reptiles—the vault expanded to an enormous size—frightful figures flitted to and fro—and the faces of men he knew, rendered hideous by gibing and mouthing, peered out from among them; they were seizing him with heated irons, and binding his head with cords till the blood started; and he struggled madly for life.”

O, no; do not blame the demented and maddened creature, if he murders wife or child, when all his powers and faculties are possessed and infuriated by the alcoholic demon. Pity him, and blame the rumseller, who has made him so, or rather blame society which tolerates and even authorizes the rumseller to thus make fiends of men.

THE REMEDY AND THE DIFFICULTY.

It is a favorite saying with the temperance orators, that if men will not drink liquor, they will never become drunkards. Very true; and the all-sufficient remedy, “total abstinence from all that can intoxicate,” I trust we all appreciate. Well, apply the remedy. Here is just the difficulty. Men do drink, and do become drunkards; and those who drink and do not become drunkards, become more diseased, more degraded, more sensual and selfish than they otherwise would be.

We preach abstinence well, but the majority of the people do not practice it. The practical problem before us is, How shall we induce all persons to abstain? We sing beautiful temperance songs, but the people do not step to the tune of the music. We raise the laugh with our anecdotes, start the tears with our pathos, thrill the soul with our eloquence, and convince the judgment with our argument, yet Behemoth still laughs us to scorn. Our prescription is absolutely infallible, provided the patients will take it. It is as sure as the

well-known remedy for sin, "Cease to do evil." But *why* will not the sick drunkard, or the invalid moderate drinker, adopt our remedy? I think we do not satisfy his reason; we do not convince his judgment; we do not rightly explain the *modus operandi*.

The liquor-drinker knows that there is some danger of becoming a drunkard; and he knows that there is a probability that he will not. The majority who drink intoxicating liquor do not become drunkards. Indeed, there are many who drink habitually, and yet have the reputation of being temperate and sober; hence, the chances are in his favor. He verily believes that its use is, to a certain extent, really advantageous, although he knows he is in danger of injury. He believes that liquor has both useful and injurious properties; or, in other words, that it is good or bad, not according to its intrinsic properties or its absolute relation to the vital tissues, but according to the time, occasion, and circumstances under which it is employed; and if he consults the standard works on chemistry, physiology and medicine, he finds that this is the general opinion of men who claim to be learned and scientific. He resolves to secure the good, and accept the hazard of evil consequences.

Can we condemn his decision? I cannot. I lament his error; but for this he is not to be blamed. He has sought information in the only direction where he could reasonably expect to find it, and his conclusion is just and honest, though unfortunate. The error is with the standard authors. His conduct is consistent with his theory. He does as I should do, if I believed as he believes; and he believes as I should believe, if I did not look to nature, instead of the schools for instruction. He has come honestly by his opinions, and he cannot help them. They are taught by all the leading medical men of his acquaintance, and in all the medical books and schools of which he has any knowledge. How is he to know that these teachings are not true?

THE MEDICAL PROFESSION.

You will now understand why and how I arraign the medical profession—not medical men, but medical doctrines. I charge the false doctrines of the medical profession with being the chief obstacle in our pathway; and I shall be able to show that the doctrines of the medical profession, so far as the medicinal employment of alcohol is predicated on them, are not only false, but absurd. Yet I do not blame medical men for entertaining these doctrines. They, too, have come honestly by them. These doctrines are taught in the approved text-books on chemistry and physiology. They are made prominent on almost every page of the standard works on materia medica and therapeutics. Every reputable work on theory and practice echos them from beginning to end. They are impressed upon his mind during his whole curriculum; and he is so thoroughly indoctrinated into them during his professional course of study, that he seldom or never doubts their truthfulness or suspects their absurdity afterwards. And I do not accuse the chemists and the physiologists with intentionally misteaching the medical profession; but I shall show that they have made a very serious mistake, and that they have given a false philosophy of the relations of living and dead matter; and that it is on this fundamental error that they have built all their arguments, accumulated all their facts, based all their statistics, rested all their logic, explained all their observations, and interpreted all their experiences in favor of alcoholic medication.

THE PRIMARY ERROR.

The advocates of alcoholic medication set out with a falsehood, which most unfortunately the temperance men have admitted as truth. Their fundamental premise is wrong. The primary fact is a fallacy. They have assumed to begin with, *that dead matter acts on living matter*; that alcohol *acts* on the living organism, for example; and the medical profession has taught this fallacy nearly three thousand years, and carried it through their pathology and therapeutics. Physicians have

even built their so-called medical science and their healing art upon it.

What would you think of the astronomer, who should undertake to calculate the problems of his science on the primary premise, that the sun revolves round the earth once in twenty-four hours? Would you not expect that he would make bad work in calculating the tides, predicting the eclipses, explaining the comets, and expounding the revolutions of the planets? Yet such was once the opinion of astronomers; and appearances, as they explained them, proved its correctness. They had the science of all preceding ages and sages, and the evidences of their own senses, in favor of the theory. Could they not see with their own eyes, that the sun "rose in the east" every fair morning, and "set in the west" each pleasant evening? And could they not feel with their feet, that the earth, in its relation to the sun, stood still? The logic was good, but the premise was wrong. They had mistaken their ingrained errors for established principles. They had mistaken an optical illusion for a law of nature.. But when, in after ages, they came to apply the law of gravitation to the phenomena, they discovered that "appearances are sometimes deceitful."

The medical philosophers of to-day, in relation to each of the primary problems of their science, and in relation to all the fundamental rules of their healing art, are in a predicament precisely similar to that of the ancient astronomers. They have not recognized the law of vitality, and thus when they have brought living and dead matter in contact, they have placed the action on the wrong side. They have perpetrated the unparalleled scientific blunder of regarding dead, inert, inorganic matter as active; and living, vitalized, organic matter, passive, in their relations to each other; and thus they have subverted the order of nature, filled their books with the "incoherent expressions of incoherent ideas," written whole libraries of technical gibberish, and given the world a medical system based on fundamental fallacies.

MODUS OPERANDI OF MEDICINES.

They teach that medicines—alcohol among the rest—*act* on the living body; and they have written many ponderous volumes in vain attempts to explain *how* they act. They have given us twenty or more classes of medicines, one of which is stimulants, each acting in a different manner from all of the others, while each drug of each class “exerts an influence” or “makes an impression”—in a word, *acts*—differently from all of its associates or class-mates; and these wonderful actions—they would be wonderful if true—are said to result in virtue of a certain inherent “special” or “elective” or “selective” *affinity* which each particular drug has and exercises for some particular part, organ or structure of the living body.

Medical men do not profess to know *how* medicines act, and do not pretend to explain the *rationale* of their effects. They confess that the subject of their *modus operandi* is a profound mystery; yet they are always administering them on the theory that they *do act in some way*.

Now, the simple truth is, *they do not act at all*. Alcohol is said to have a “special affinity” for the brain. The truth is, it has no affinity of any kind for any living tissue. But, on the contrary, the vital powers have an inherent and eternal repugnance to it, as they have to all extraneous, poisonous, and non-usable substances. The relation between alcohol and all living things is that of *antagonism* instead of affinity, as we shall see presently. There is as much affinity between growth and decay, between formation and retrogradation, between life and death, between sobriety and intoxication, between love and aversion, as there is between alcohol and anything that has life.

NATURE OF DISEASE.

The same fundamental error has been applied to disease. The medical profession has wholly misapprehended its nature. They tell us that diseases “attack” us, “run a course,” are “self-limited,” have “laws of their own,” etc.; and in all

of the standard works, diseases are represented as entities or forces—things—at war with the life-principle, and in antagonism to the “*vis medicatrix naturæ*.” The truth is precisely the contrary. Disease and the *vis medicatrix naturæ* are one and the same thing, as I think I shall be able to make appear.

“Alcohol acts on the living organism.” This is the almost universal opinion. Its manner of acting is a mystery, which no one pretends to understand. It is said to have *stimulant*, *narcotic*, and *nervine properties*; and the same is said of tobacco, and the same may be said of the rattlesnake’s virus with equal truth. It is said also to be *caustic* and *irritant*, while tobacco and the rattlesnake’s virus are the opposite—*sedative* and *anti-irritant*. But how or why alcohol produces the effects which take place from a half dozen classes of medicine, no one can comprehend. It occasions different effects on different persons, and opposite effects on the same person at different times, and in different doses. A given quantity seems to energize the whole vital domain; another dose stupefies the brain, and another paralyzes the muscles. But *why* and *how* medical men cannot tell; they cannot even advance a theory.

I think I can explain all of these problems; and in the explanation I find the condemnation, not the justification, of alcoholic medication.

I repeat, alcohol does not act at all. The manner in which the living system acts on the alcohol, to resist or to expel it, affords us the key to the solution of all the problems connected with its supposed action or *modus operandi*.

What is alcohol? What is there in it or of it that it should act in the vital domain, any more than it acts in the demijohn, or in the apothecary shop? Why should it act on the human stomach any more than it acts on a tumbler, or a decanter, or a barrel? Does change of place change its nature? There is no greater fallacy beneath the sun, there never was a more disastrous error in science, there never was a more pernicious blunder on earth, than this doctrine that *dead things act on living things*. It has given the world a false medical science, and a destructive Healing Art. It has sent more human beings to

premature graves than has war, famine and pestilence combined. But I am anticipating.

Do not suppose, I beg of you, that, because I deny the action of alcohol entirely, that, because my theory of its *modus operandi* in a mere negation, there is nothing in it. I assure you *there is everything in it*, so far as my argument is concerned. And if you will adopt this premise and study the subject for a whole year, you will find more and more in it every day. You will see new applications of this doctrine continually.

THE ACTION OF ALCOHOL.

This is the great question—the mystery of mysteries. How does it act? What is the rationale of its effects? This problem has baffled the investigations of medical men for three thousand years, and they now seem to regard it as without the pale of human comprehension. And what is singular, no one who has written a book on the subject has ever looked in the right direction for a solution of the problem. One might as well gaze at the moon to find out the whereabouts of Beau-regard, as to seek “affinities” between dead and living matter, in order to discover the *modus operandi* of alcohol. We have had the mechanical, the dynamical and the chemical theories; the food theory, the medicine theory, and the poison theory. It has been supposed to act by “reflex action;” by “sympathetic influence;” “through the circulation,” “through the medium of the nerves,” by “special affinity,” &c., &c. But none of these hypotheses are satisfactory, even to its author; and certainly none of them are true.

But this question of the *modus operandi* of alcohol must be solved, or the temperance cause can never have a scientific basis; and I propose to solve it. It was for this purpose I came to London. It was to do this in a World’s Temperance Convention, from which truth may have a world-wide influence, that I broke away from urgent and engrossing professional duties, and crossed the rolling ocean.

And allow me to say, that I believe I have been, although unconsciously, preparing my address for this occasion for

the last twenty years. More than twenty years I have been engaged in the investigation of that intricate and perplexing problem of the medical world—the *modus operandi* of medicine; and I profess to have discovered its true solution; and its solution affords me a scientific basis on which to predicate the solution of all the complicated and hitherto mysterious problems of medical science.

THE ONE THING NEEDFUL.

The temperance cause has long had the conceded *moral* argument, and the *social* argument, and the *economical* argument, and the *scriptural* argument in its favor. I know that it is said that Christ turned water into wine; but that was the genuine hydropathic article. If you will make wine of the same wholesome material, you may drink all you please, and be as merry as you can. If you will drink nothing but wine made of pure water, all the blood of your body will become the real “wine of life”—the veritable “*elixir vite*,” which so many have *not* found in the various forms of “spirituous and malt liquors, wine and cider.”

But while we have had so many arguments in our favor, the adversary has wielded one argument against us more potent than all of them. He has had the *Scientific* argument—not of right but of usurpation. He has assumed that science is in favor of alcoholic medication; and all the disasters and reverses which the temperance cause has ever sustained, as well as its present crushed and paralyzed condition, are attributable to the employment of this weapon against us, in the hands of medical men.

And now, if I can demonstrate that the scientific argument is really on our side; that it is only false science which is arrayed against us; and then wrest this tremendous missile from the hands of our enemy, and even turn it against him, shall I not accomplish the one thing needful for the final triumph of our cause?

This false medical science, which temperance men have admitted to be true, is the impediment which has so frequently

checked our progress; and it is this, and this alone which has enabled the rumselling fraternity to control our judiciary, direct our legislation, declare our prohibitory laws unconstitutional, and thwart all of our efforts to enforce such license laws as we have, and often by some unexpected *coup d'etat*, undo, in one day, through the courts and legislatures, the work it has taken us years to accomplish.

REDUCTIO AD ABSURDUM.

Medical men have reasoned most strangely on this subject of the effects of alcohol. And I am reminded of an anecdote which serves to illustrate the process of ratiocination.

Something less than a hundred years ago, when Western New York was a wilderness, its principal inhabitants being wolves and Indians, there occurred an eclipse of the moon. A tribe of the red men, living on the banks of the Genesee River, not far from Portage Falls, looked at the phenomenon in alarm. All at once they saw the pale, placid Queen of Night, become obscure and dark; and in a little time longer, no light at all was reflected from her veiled face. What did it mean, and what was to be done? The sages and chiefs—the doctors and astronomers—were called upon to divine the mystery and indicate the remedy.

The case did not seem to admit of but one practical solution, and they were so lucky as to find it. One of their chiefs, Shongo, had, a few days before, gone to his new “hunting grounds” in the “Spirit land.” Shongo had lived to be very old; and for many years he had been very infirm; and it was rumored abroad that his near and dear relatives, on whom devolved the burden of his support, had treated him in such a manner as to expedite his journey to a better world. The conclusion arrived at was, that Shongo, in revenge for the maltreatment he had received from his kindred on the earth, had placed himself between them and the moon, to obstruct their light. Well, the Indians at once loaded their rifles and commenced firing at the old fellow, who soon began to move; and the more they fired the more he “pushed along;” and in

a few hours Shongo was completely dislodged. He had "skedaddled."

DIAGNOSIS BY RESULT.

This is what the doctors call "diagnosis by result." If a person is sick of some very obscure disease, and the physician cannot precisely make out the case, he *assumes* some disease, and gives the remedies for that. If the patient recovers, the diagnosis is, of course, proved; but if the patient does not recover, *then the diagnosis is not proved!* Some persons might be disposed to suspect, that, in the cases wherein the result *disproved* the diagnosis, the remedies had something to do with the death of the patients; but this is out of my line of argument.

The fact that the shooting removed the difficulty, proved that the eclipse was—Shongo! I apprehend that all the logic we shall find in medical books, in relation to alcoholic medication, and its action on the living system, will be of the character of diagnosis by result.

A distinguished member of the Sons of Temperance in the city of New York, a few years ago, was, as a consequence of gross food and unphysiological habits, very much troubled with boils and pimples, for which he resorted to one of the quack compounds of alcohol and sugar, called "Townsend's Sarsaparilla." In a few weeks, as the weather became cooler in the fall, his skin disease disappeared, and he was eulogistic of the remedy, not only as an efficacious medicine, but also as very pleasant to take. I reminded him that nature might have performed the cure in spite of the medicine, and also that I regarded liquor-drinking, in the shape of "Townsend's Sarsaparilla," as a violation of the total abstinence pledge, as much as I should the drinking of sweetened "Schneidam Gin Schnapps." He replied in a scripture quotation, "'whereas I was once sick, now I am well,' and that is enough for me." "Diagnosis by result" again. Had this gentleman understood the relations of alcohol to the living organism, would he have been thus deluded? and would his example

and his patronage have been thus in favor of the empiric and the rumseller?

The day before I left New York, I met a distinguished friend of temperance in the street, with whom I had been associated, in various temperance organizations, for more than a dozen years; and he was certainly a faithful and zealous worker and advocate for the cause, according to the light that was in him. Said I: "I am going over to the World's Temperance Convention. I want to hear and take part in a discussion on this alcoholic medication question. This is the great point now. We can never get along until this is settled."

"Well," he replied, "I am glad you are going. It is a very important matter. I have had some experience. Last spring I was sick. I had been laid up with the rheumatism for three months. I took a great deal of medicine, and got very low. My physician said I must take brandy. I did not like the idea of taking it; still my feelings seemed to demand something of the kind; and as I thought the Doctor knew best, I consented to take it; and I thought it benefited me."

My temperance friend supposed, that, being a physician, I should of course be on the alcoholic side of the controversy and he was very kindly endeavoring to help me to an argument with the benefit of his experience.

I rejoined: "My friend, I am sure you are laboring under the common delusion on this subject; and it is to help to expose that delusion that I am going all the way to London."

My friend looked a little surprised; said he hoped the truth would be made to appear, whatever that was; wished me a pleasant journey, and bade me, "Good morning."

His "feelings" called for stimulus; so do the feelings of the semi-intoxicated person call for "more of the same sort." The feelings of the midnight debauchee, so soon as he begins to stir abroad the next day, clamor for liquor. My friend needed *rest*, not stimulation; nor would he have resorted to alcohol in any event, unless it had been prescribed and insisted on by the *temperance* physician. Left to himself, the pa-

tient would either have got along without stimulus of any kind, or he would have found something beside alcohol to answer his purpose.

THE INFLUENCE OF MEDICAL MEN.

The influence of medical men, in relation to the temperance cause, is almost omnipotent. If their doctrines were in harmony with the teachings of nature, and if medical men practiced the healing art according to the laws of nature, alcoholic medication would be abandoned at once, and alcoholic beverages would very soon be among the things that were. It is, therefore, in the power of the medical profession to achieve this glorious reform at once, and confer on humanity a boon exceeded by nothing since the creation, except the redemption; or it is in their power to perpetuate the curse indefinitely, perhaps forever. And I ask nothing of the profession but *to teach the world the exact scientific truth of the relation of alcohol to the living organism.*

THE ALL-IMPORTANT PROBLEM.

In this problem, simple as the statement may seem, are involved all the philosophy, all the mystery, all the difficulty of our subject. Its solution, as I have said, is a vital prerequisite to the success of our cause. Take your temperance orders, your leagues and alliances, your pledges, Maine laws, and prohibitory statutes, your tracts, journals, and prize essays, and give me the plain, unambiguous and truthful declaration of the relation of alcohol to the living system, or of the *modus operandi* of alcohol, endorsed by the medical profession as a body;—give me, I say, this one weapon, and I will gladly give you, in exchange, all the others I have named, provided I can not have the whole. I would even throw in your Goughs, Chapins, Beechers, Cheevers, Carpenters, Grindrods and Lees, whose noble deeds, and able writings, and powerful logic, and thrilling eloquence have been the admiration and the inspiration of the whole civilized world.

I am not unmindful that, it is stated in a late number of

your *Weekly Record*, that some two thousand of your physicians have been cured of the delusion that alcohol is either necessary or useful as a medicine; but this is less than one in ten. Where are the remaining twenty or thirty thousand?

I repeat, give me the simple declaration of scientific truth on this subject from this source, and our cause needs little else; and although I have strong attachments for the temperance organizations, and would love to hear those glorious men talk temperance forever, yet I would cheerfully dismiss them with the blessing, and say to them, “‘well done, good and faithful servants,’ but your further labors in this direction are unnecessary. This temperance business is now *doing itself*; and, when done, it will stay done.”

Believing this, you will pardon my earnestness, and you will understand my anxiety to have my professional brethren see this matter in its true light.

WHERE THE PEOPLE LOOK FOR INSTRUCTION.

To whom shall the world apply for instruction in this matter? Where *do* people look, where *must* they go for guidance and direction, except to the medical profession? It has the doctrines which concern health and life peculiarly in its keeping; and if the professors of science, if the acknowledged conservators of the public health, mislead the people, how can they help themselves?

Alas! who cannot recall to mind instances of physicians who were themselves confirmed inebriates, and who were reputed to be men of remarkable skill, provided they could be found when sober? Who is not familiar with the melancholy history of beloved and eminent clergymen, degraded from their high calling because of drinking habits, which habits were the consequences of alcoholic medicine prescribed by the physician?

Prof. Barker, of the New York Medical College, said to his medical class, in a lecture, recently: “I have known several ladies to become confirmed drunkards, the primary cause being a taste for stimulants, which was acquired by alcoholic drink being administered to them as medicine.”

In 1845, during the palmy days of the Washingtonian movement, an intelligent and talented printer, who had been for several years a "gutter drunkard," and whose wife and children were reduced to the lowest stage of degradation and misery, was reformed and restored to himself and his family. He became earnestly engaged in the work of reforming others; he was an active member of several temperance societies; became editor and publisher of a temperance paper; and at the end of three years his family were once more enjoying the comforts of home, and he had accumulated five hundred dollars in the Savings Bank. Over-work at length occasioned a slight indisposition, for which his temperance physician advised porter. The patient demurred, pleading his pledge, and fearing evil consequences. The Doctor insisted; the patient yielded, drank the *medicine*, and in less than a week he was a drunkard again! In one month he had expended at the groggeries every cent of his five hundred dollars, and his wife and children were again beggars. The last time I saw him he was staggering out of one of the lowest grog-shops in an obscure street. Recognizing me, he gibbered out: "Doctor, wont you lend me a shilling; havn't had nothing to eat in two days."

A man who had kept one of the most extensive restaurants and liquor-saloons in the city of New York, and who was himself one of the "brands plucked from the burning," by the Washingtonians in 1840, and who was for ten years thereafter an active and efficient worker in the temperance cause, became seriously affected with chronic rheumatism. In the course of two years he had employed eleven temperance physicians, every one of whom, as he assured me, recommended brandy! He peremptorily refused to take it. He knew too well the history of such cases. He was aware that the first dose of the maddening poison might arouse the slumbering demon within, and the awful word, *drunkard*, be again written against his name.

When a youth, I was taught to love liquor and use tobacco: and for both habits, which I can now only look back upon

with horror, I am indebted to the advice of the family physician, who was also a temperance man. And when I recollect that a mere accident, trivial in itself, turned my mind unalterably against the use of liquor, and, in all probability, prevented me from becoming a drunkard, I feel that I owe the temperance doctors a word of advice in return; and I shall endeavor to render "good for evil."

Oh! I could tell you the names of many noble persons, some of them "holy men of God," whose lives were pure, whose aspirations were noble, whose gifts were exalted, and who stood in the foremost rank among the good, until the temperance physician prescribed the insidious *medicine*, "which spares not the high nor the humble."

THE QUESTION A SCIENTIFIC ONE.

The question before us is purely a scientific one, and as such I shall discuss it. I allege that medical men, in their books and schools, teach a doctrine, in regard to the relation of alcohol and the living system, which is not true, which is in opposition to nature, and which is contrary to common sense. I shall take the ground that nature is right, and that the doctors are wrong. I assert that all the data of science, applicable to the subject, rightly understood, go to vindicate nature and refute the doctors. The issue is exceedingly simple. *It is plain yes, or no.*

Medical men tell us that alcohol is a "caustic and irritant poison," and also a "supporter of vitality;" that it "inflames the blood and exhausts the nerves," and yet "imparts energy to the living fiber." They tell us that it "hardens the brain, and decomposes the membranes," and that it is "respiratory food." They tell us that it is inimical to every thing that has life, animal or vegetable, and that it is, nevertheless, a "restorative" to the life-principle. Is not this a marvelous muddle? There are no such facts alleged of, there is no such logic applied to any other thing in all the universe. Alcohol is the only agent that God ever made—no, God *never* made it, for it cannot be found in anything living or organic, while

that thing maintains its normal condition—alcohol is the only thing that Diabolus ever fabricated, which physicians have ever supposed to have such contradictory relations to that crowning work of the Divine Architect, the being “created a little lower than the angels.”

It is both a destructive and a constructive agent; a nerve-exhauster and a vital supporter; a blood-inflamer and a blood-nutrient; a poison and a food. Is there not some mistake somewhere? I trust I shall be able to show that here is a delusion which has no parallel in the annals of science, and which has destroyed more lives and ruined more nations than “war, pestilence and famine.”

I must go back to first principles. Alcohol is or is not a “supporter of vitality;” it is or is not “respiratory food.” If the affirmative is true, then is teetotalism, indeed, in the language of the *Westminster Review*, “a physiological error;” and then is this World’s Temperance Convention not only a *physiological error*, but a *teetotal absurdity*. But if the negative is true, let us understand it, and put the physicians right, so that their immense and powerful army, of half a million strong, shall be for us, and not against us.

Here, as everywhere, in this erring and wicked world, we shall find “ignorance the evil, knowledge the remedy.” My faith and my hope for temperance are, in placing before the world the exact truth on this subject. And what *is* true?

Go to the standard authors, and you will find them all against me. So far as medical authorship is concerned, I have to this hour stood alone on this issue as I shall present it. But I know I am right. Noah knew he was right, when in the days of the flood, he stood in the minority—one against the world.

The authors of our text-books on chemistry, physiology, materia medica and dietetics, with the illustrious names of Liebig, Carpenter, and Pereira at their head; and the authors of our standard works on therapeutics, pathology, and practice, with the scholarly Dunglison, Copeland, Rokitansky, Paine, Watson, and Wood, among them, teach the absurd

non-commonsensual, chemico-physiological vagary, that alcohol possesses inconsistent, opposite, incompatible, and conflicting relations to the living system.

Is this doctrine true or false? Has nature blundered, or have the doctors made a mistake?

I undertake to say, in the light of all the scientific data applicable to the subject, that alcohol is not, in any sense, nor in any manner, nor under any circumstances, a "supporter of vitality," but always the contrary; that it is never, in any sense, nor under any circumstances, "respiratory food," but always the opposite—a pure poison, and nothing else. I say, and I *know*, and I can *prove* that physicians, and chemists, and physiologists are mistaken on these points. They have mistaken the relations of living and dead matter; they have misinterpreted the language of vitality; and they have entirely misconceived the *rationale of the effects of alcohol*. And this is why it is that the influence of the medical profession, as a whole, is thrown into the scale against our cause.

As Jefferson said of American slavery, "We have got the wolf by the ears, and we can neither hold him nor let go." Until we settle the scientific argument, we shall have the alcoholic wolf by the ears. We cannot hold on as a beverage, and we cannot let go as a medicine. The remedy I propose is, to cut off the wolf's tail just behind his ears!

I said this is a question of science; and I call upon scientific men to investigate it; not in the light of old traditions—which light is really darkness—but in the light of the laws of nature; for there is no true science that is not based on the laws of nature.

Before I present the scientific argument, let us see how this false doctrine of the medical profession works practically, and how it is reasoned professionally. The temperance physician—and if there is any physician who is not a temperance man, I think he has mistaken his calling—when his patient has had a fever of two or three weeks' duration, and has become pale, weak and emaciated, prescribes wine, brandy, ale, porter, etc. *Why?* He says, "to keep the patient up;" to "obviate de

bility," to "sustain the vital powers," etc. The indication is, to give his patient life and power, and he prescribes alcohol.

Ask him, "What is the relation of alcohol to the living system?" He will answer, "A poison, of course."

"How can a poison "support vitality?"

"O, by developing the nervous energy."

"But, do not your books say that it exhausts the nervous energy, and diminishes the powers of life?"

"That is when it is used as a *beverage*; when administered as a *medicine* the case is different."

"How different?"

"Why, as a beverage, it is a *narcotic-stimulant*, but as a medicine it acts as a tonic."

"Suppose you label one glass of brandy *beverage*, and another *medicine*, will the effects of each be different?"

"O, no, I don't mean that. In health, it acts as a poison; but in disease it operates as a remedy."

"Then, the relation of alcohol to the living organism depends on the condition of health or disease?"

"Precisely. That's it."

"Was your patient sick when you prescribed the brandy?"

"Certainly. He had just passed through a long course of fever."

"Passed *through* a fever?"

"No, I mean the fever passed through him—run its course."

"Where did the fever go, or what became of it, after it had 'passed through' your patient, or run its course?"

"That question is entirely irrelevant. It is mere ridicule; and ridicule is not argument."

"Very true; I raised the point just to give you a hint that the idea of the nature of a fever, as entertained by the medical profession, is not only erroneous, but absurd, if not ridiculous. But never mind; was your patient convalescent?"

"To be sure, he was—passed the crisis finely. His disease was fairly subdued with antiphlogistics and alteratives, and all he required was a little artificial support."

"You say he *had* had a fever. Did you prescribe the brandy for the fever he *had* had?"

“No, that was disposed of.”

“Did you prescribe the brandy for the convalescence?”

“Not exactly that, but for the debility.”

“Is debility sickness?”

“No; it is the effect of disease.”

“Suppose the patient had been weak from any other cause, would not the brandy be just as appropriate?”

“Well, perhaps it would.”

“Suppose a child had been weak, or had inherited a feeble constitution from its mother, or had a frail organization because of a father who was addicted to the use of intoxicating drink, or suppose a man should feel weak after a hard day’s work, would you recommend brandy?”

“Ah, well, perhaps, probably. I might, and then I might not. It would depend entirely on circumstances.”

“What, then, becomes of the principle you advanced, that alcohol is remedial only in disease?”

“Never mind the theory; Observation and experience are my guides I go for facts.”

“One question more: Did it never occur to you that ‘nervous energy,’ ‘vital power,’ and ‘living strength,’ do not exist in brandy, and that brandy cannot impart what it does not possess?”

“O, that’s all theory. I go for facts.”

“But, now, Doctor, let us refer for a moment to first principles. You said that alcohol, though a poison, developed nervous energy. *How* does it do this?”

“O, that is going into the *modus operandi*. That we don’t know any thing about.”

“Then, how do you know that it *does* develop nervous energy?”

“Because it increases sensibility and circulation.”

“Would not the application of boiling water, or a red hot iron, or a blister plaster, or a touch of aquafortis, or a dose of arsenic, increase sensibility and circulation?”

“Yes.”

“Would they also develop the nervous energy?”

“I suppose they would.”

“Can you explain *how* they do it?”

“Of course not. That’s *modus operandi* again.”

“And if you could explain the *modus operandi*, you would at once renounce the practice.”

“Why so?”

“You would then understand that, what is called “developed nervous energy,” is merely *vital resistance*—the struggle of the vital powers against the poison—an effort of the living system to expel it.”

“You mean, then, that the alcohol does not act at all?”

“I mean that, exactly.”

“How, then, do you explain its effects?”

“I have just told you.”

“But if alcohol does not act itself, it *superinduces* an action; and what’s the difference?”

“The difference is in the *kind of action*. If the action is simply defensive, it is war; it is waste; it is desolation; and this action only develops the expenditure of vital power.”

Such is substantially the argument I have had with many physicians.

A medical gentleman in a Western village, where I lectured on the *modus operandi* of medicines, asked me this question: “Provided *the effect is the same*, What is the difference whether the medicine acts on the system, or the system acts on the medicine?” He thought I was making a great ado about nothing.

I assured him that, admitting his premises, his conclusion was unanswerable. “Provided *the effect was the same*,” it would make no sort of difference, whether a man ate his dinner, or is dinner ate him; whether the whale swallowed Jonah, or Jonah swallowed the whale.

But whether a dead thing acts on a living thing, or a living thing acts on a dead thing—whether alcohol acts on the system, or the system acts on alcohol—is *all difference*, as a scientific or a practical question.

During the prevalence of cholera in New York, in 1854, I

met, one day on the street, one of our ward physicians, with whom I was in the habit of having little argumentations occasionally, on the medico-alcoholic controversy. There was a dispute among the physicians of our various hospitals, whether the cholera ought to be treated on the *stimulating* plan, or the *antiphlogistic* plan, or the *alterative* plan, or the *mixed* plan, or the *promiscuous* plan. But it was all the same to the patients. About one half of all of them died.

“Well, Doctor,” said I, “have you found out what is the nature of the cholera, yet?”

“O,” said he, “I haven’t any theory. I just treat the symptoms. I go for facts. But,” said he, “there is one thing I am satisfied about: Whenever there is excitement or inflammation, I always find it good practice to reduce it.”

I asked him what he thought of dysentery; if that was not an inflammatory disease?

“Certainly; inflammation of the mucous membrane of the bowels.”

“And how do you treat it?”

“Why,” said the Doctor, “the best remedy I ever found for it, is a powder of opium, ipecac, sugar of lead, and cayenne pepper.”

“What!” said I, “what has become of your theory? A moment ago you had *always* found *reducing* treatment the best for all cases of inflammation, but now your best remedy is a combination of powerful stimulants!”

“O, darn the theory,” said he; “I go for facts.”

And I could never talk with a medical man who prescribed alcohol, in any case, who was not always darning his theory with his facts, and always darning his facts with his theory, and making a *darnation* muddle of the whole business.

A little more than a year ago, a young man—a theological student—came to my Institute in New York, from the University, violently sick of typhoid fever. He expressed a wish to be treated according to the Hygienic system; soon became delirious, in which condition he remained for three or four days. On the third day of his illness, the Principal of

the Theological department, who felt a degree of personal responsibility for the welfare of the patient, having ascertained his whereabouts, called to see him, and brought along his family physician, who proceeded at once, *secundem artem*, to prescribe brandy and other stimulants. This, of course, I could not allow. I informed the Doctor that the patient was mine, and must and should be treated according to my system, that being the system of his own choice; but that, as I professed to be a reasonable, or at least, a reasoning man, if he could give me any reason why the patient should have brandy, I would certainly order it, and then the following dialogue ensued:

“The patient is very low.”

“Very true.”

“His case is very precarious.”

“I am aware of that.”

“He needs supporting treatment—something to keep him up.”

“So he does; and that is just what we are giving him.”

“Are you giving him stimulus or tonics of any kind—wine, quinine, beef-tea, chicken broth, etc.?”

“No, nothing of the sort. Don't believe in them.”

“I should recommend him to take brandy.”

“Why?”

“To keep him up.”

“How can brandy keep him up?”

“By imparting temporary strength.”

“By imparting it? Is the strength *in* the brandy?”

“It stimulates the vital powers.”

“Then it wastes the vital powers. Stimulation does not impart strength; it wastes it. Vital power does not go out of the brandy into the patient, but occasions vital power to be exhausted from the patient in expelling the brandy.”

The Doctor declined any further controversy, and his friend suggested that he came there to prescribe, not to discuss; but I had the pleasure of informing him, before he could get out of my office, that I had not, for fifteen years, given a particle

of stimulus of any kind in any case of fever, and that of hundreds of such patients, I had not lost one.

Medical men tell us that alcohol "exalts" the vital properties. But Dunglison, in his Dictionary, declares that a high degree of exaltation is actual inflammation. This is "exalting to kill."

When the medical profession and the world learn to regard stimulation, irritation, inflammation, and fever, as essentially the same pathological idea, we shall have a very different system of medical practice.

But here is the gist of our controversy. If alcohol can impart the life principle to a person who has been reduced by a fever, why not also in all cases of debility? Why not in cases of fatigue? Why not give alcohol in cases of indigestion? Why not apply it to the skin when cutaneous depuration is feeble? Why not administer it for inability of any kind?

Some of the schools of medicine have a theory that disease consists essentially in the inability of the part affected to perform its normal functions. If this is true, and if it is also true that alcohol can impart *ability*, then we have at once a universal panacea in the "fire-water," and we may as well go back at once to the days of Paracelsus and *elixir vitæ*.

I repeat, if alcohol is good for debility in one case, why is not alcohol good for debility in all cases? Let the advocate for alcoholic medication make this distinction when there is no difference, if he can.

If alcohol will give strength, why not make it the grand specific for all weakness? This would be reasonable. The logic is irresistible; and this is just what physicians are doing. Where shall we draw the line of demarkation between health and disease, suppose we agree to limit alcoholic medication to cases of actual disease? If the sick man requires alcoholic stimulus, so does the laboring man. There is no avoiding this conclusion. *Disease is itself labor*. And now, as I have gone so far into medical doctrines, I must go to the starting point of all, or I shall not be understood.

THE UNSOLVED PROBLEMS.

The *nature of disease*, and the *modus operandi* of medicines, have always been among the unsolved problems—the mysteries of medical science. Medical authors do not pretend to understand them. They know disease only by its phenomena,—its forms, and features; they know medicines only by their effects. The rationale of either is confessedly unknown. They know that diseases assume a great variety of forms, and that medicines occasion a great variety of effects, and that is all. The *why*, or *how*, or *wherefore*, is a profound mystery.

But I claim to have discovered the true solution of all of these problems. I think I have ascertained the intrinsic nature and essence of disease—of all diseases; and I believe I can explain the rationale of the effects of medicines—of all medicines, alcohol included. And when medical men *do understand* the essential nature of disease, and when they *can explain* the *modus operandi* of medicines, I am entirely sure they will never more prescribe alcohol, either as a beverage, or as a medicine, neither in health nor in sickness.

I could never understand this awkward and perplexing alcoholic muddle, this poison-medicine-food puzzle — “three in one, and one in three” — this “pragmatical prevarication” logic, until I had solved the other problems. And since then I have succeeded in convincing some four or five hundred of the forty thousand physicians in the United States, that my views are correct; and they are now thorough teetotalers, theoretically, practically, dietetically, and medically. You need not have any fears that any of them will ever break the pledge, for with them total abstinence is not a constraint, a privation, but a physiological principle—a part of themselves. Nor will these persons stop their work of reform with the mere disuse of alcoholic beverages; they will apply the same principle to the reformation of other bad habits. Nor will they go from Scylla to Charybdis, by resorting to opium, or tobacco, or any other narcotics or stimulants, as substitutes for alcohol.

Total abstinence a privation! How many there are who really so regard it! How many regard abstinence from in-

toxicating drinks as a self-denial, rather than a privilege! A distinguished temperance man, and president of a State temperance organization, said to me, in New York, three years ago, as we were on the way to a temperance meeting, in view of the unusual efforts we were then making to suppress the liquor traffic: "What a magnificent spectacle we are now presenting to all the nations, denying ourselves all indulgence for the sake of a great moral principle!"

Indulgence? Magnificent nonsense! Total abstinence is no privation, but pleasure to all who understand and live its philosophy.

The true definition of disease is *remedial* effort; and on this doctrine that disease is just the contrary to what is taught in medical schools and books, may be predicated the world's redemption, not only from alcoholic poison, but from disease itself. When people understand that disease is a vital struggle in self-defence—an effort to protect and defend the organism—that it is not a thing or entity, foreign to the system, but an action of the system itself which seeks its preservation, not its destruction—they will cease to fear it. They will only fear its *causes*. They will not then send for the physician to *stop* it, to *break it up*, to *repress* or *subdue* it, to *counteract* or *neutralize* it. They will see that such "cures" are delusive; that they are subjugations of the remedial effort. They will then aim to remove the causes, not to suppress the symptoms; they will seek to "aid and assist nature," not by subduing the vital strength with potent drugs, but by providing her the best conditions and facilities for accomplishing her work of purification.

RATIONALE OF FEVER.

A fever is the simplest form of disease, and the type of all diseases. What is a fever? Simply *a process of purification*. It is an effort to rid the body of obstructing material—impurities. It is labor unusual and extraordinary; and when the fever has completed its task of purifying the organism, like an army after a long campaign, or a man after a hard day's work, the system is weak and fatigued, and the vital powers

want, what? Alcohol? No; *rest*, REST. The body needs *quiet*, not *stimulation*. The alcohol only kindles up a new fever, and occasions a still greater expenditure and waste of vital power. Recollect I have said that stimulation and fever are identical.

It is during sleep, when the external senses are in repose, that the vital powers build up and replenish the tissues; and nutrition goes on best when the abnormal disturbance, which we call stimulation, is least. *Stimulation* and *nutrition* are antagonistic actions. Medical men have made a disastrous mistake in confounding *excitement* with *strength*.

The physician who prescribes alcoholic stimulus after a fever, to *raise* the patient, or during a fever, to *sustain* him, or previous to a fever, to *prevent* it, commits a grave, and, also, a *grave-filling* error. He imagines that if he withholds stimulus, his patient will run down; but the truth is, the stimulus is one of the things that runs him down.

The late Prince Albert was "kept up" for six days on stimulus, as the story came to us over the waters; and where was he on the seventh? I shall return to his case presently.

Now, I have tested this question of stimulation both ways. For many years I gave stimulants to keep my patients up. Many a time has my patient taken one quart of wine, and even brandy, per day. I watched the pulse closely, and as often as it evinced the least tendency to sink, I repeated the dose, and brought the circulation *up* again, to what? To the normal standard? No; to the *fever standard*. I did not then understand, as I now do, that I was only prolonging the fever, and lessening the chances of final recovery. I lost about the usual proportion of cases; but since I have seen the "error of my ways," I have treated hundreds of cases of all the forms of fever incident to New York and its vicinity, and, as I have already said, without stimulus of any kind, and without losing one patient. I do not regard the ordinary acute and febrile diseases, of which so many die every day in the year, and whose mortality is about equal to that of all other diseases combined, as not intrinsically dangerous, however vio-

lent they may be, provided the doctor does no harm. And I regard physicians, as a general rule, as vastly more destructive than fevers, especially the alcoholic "respiratory-food" physicians.

When I made the statement not long since, during a course of lectures I was delivering in Boston, Massachusetts, that I did not consider the fevers, of which so many were dying all round us, as at all dangerous, when left to themselves, and that I had not, nor had any one of my associate physicians lost a case in fifteen years, a venerable gentleman of some three score years and ten, arose in the audience and remarked, "Sir, your statements are perfectly astonishing!" I could only reply, "there is nothing more astonishing, on medical subjects, than simple truth and plain common sense.

THE STRONGHOLD OF THE ENEMY—THE PROVINGS.

And now let us go to the very bottom of our subject. Let us storm the chief citadel of the enemy. Let us look into the *provings* of alcoholic medication. How do medical men *prove* that alcohol possesses *medicinal* "virtues?" or that it is a "supporter of vitality," or that it is "respiratory food," or that it is remedial in disease?

Here is the very magazine of the alcoholic defence. Let us apply the torch of truth and see if it will not explode. Here is where the adversary has been securely entrenched during the "war of four thousand years" against him.

Medical men have employed alcohol more extensively than any other drug, and they have experimented with it on men, on animals, and on plants, with the view of determining precisely its nature, action, and remedial indications. I propose to subject their experiments to the ordeal of a scientific examination, to see what they really do prove. It is by these experiments that physicians prove to their own satisfaction that alcohol is a medicine; and if I can show that they prove just the contrary, the testimony becomes important to the cause of temperance as well as to the cause of medical science.

Let us commence with the experiments at the lowest plane of organic life, and ascend. I shall quote only the standard authors.

“On plants,” says Pereira, in his *Materia Medica*, “alcohol acts as a rapid and fatal poison.”

This is rather poor encouragement to begin with, so far as the *remedial* properties of alcohol are concerned. Can a thing, which is a “a rapid and fatal poison” to the whole vegetable kingdom, be a good medicine to the animal kingdom? Let us see.

Says our author: “Leeches, immersed in spirit, *die* in two or three minutes.” Mind you, it is not stated the leeches get well, or have their vitality increased, but they *die*—a distinction *with* a difference.

Fontana found that “when half the body of a leech was plunged into spirit, this part lost all of its motion, whilst the other half continued in action.”

This is important, no doubt, as it shows that a leech, as well as a man, may be half killed with alcohol. But enough of the leeches.

We go from leeches to frogs. “The same experimentalis; observed that spirit *killed* frogs.” Mark, again; the spirit did not *cure* frogs; it *killed* them. This distinction must not be lost sight of, for we shall find it run through our whole course of experimentation. But, then, we must recollect that these animals—the frogs—were not sick; so far as we are informed, they were in the enjoyment of the best of health up to the very moment when they were subjected to the medicine. Suppose Fontana had immersed a leech which had just experienced a course of typhoid fever, and was now suffering of nervous debility and weak digestion, in spirit; or if he had administered the article to some poor frog, while suffering of a paroxysm of retrocedent gout, do you not imagine that the medicine would have operated very differently? Perhaps, then, it would have *acted* as “respiratory food,” instead of a “rapid and fatal poison.”

Well, we have sent the frogs after the leeches, and now let

us pursue the experiments. But it may be well to notice in this place that, in the language of our experimentalist, Fontana, "the same result (death) happened to the frogs, whether the spirit was administered to the stomach, inserted beneath the skin, or applied to the brain, or spinal marrow."

Outside or inside, it was all the same. If the drink, or food, or medicine, or whatever form of alcohol it may be, touched the frog in any place, the frog died. But we have not yet done with these interesting *frogological* illustrations.

"Plunging the heart of this animal (the frog) into alcohol, caused its motion to cease in just twenty seconds."

Admirable precision! And this experiment seems to come very nearly to the point; for I think this frog must have been an invalid. Its heart was dissected out, and this can hardly be considered a wholesome operation, certainly not a physiological process. I take it for granted, therefore, that the frog before us was really sick, and seriously "heart sick," too. But this fact, so far as the experiment proves anything, did not in any way change the relation of alcohol to its vital organism. It stopped the heart's motion; but whether the frog still lives without a heart, or with a motionless heart (which has been replaced), we are not informed. But greater marvels are to come.

"Applied to the right crural nerve of a frog, alcohol destroyed the power of the animal to move its right foot."

Wonderful are the demonstrations of science! The *remedy* damaged the side of the body to which it was applied, instead of the opposite!

Again, "Monroe observed that alcohol, applied to the *hind legs* of a frog, rendered the pulsation of the part less frequent, and diminished the sensibility and mobility." Strange that it was not tried on the *fore legs* also!

Sensibility and mobility are the vital properties of the nervous and muscular tissues. They, with the *irritability* of the organic nervous system, constitute the life principle—vitality itself. Alcohol *diminishes* these vital properties. Is it not, then, a queer "supporter of vitality." But our subject of

experimentation is only a frog. It may be different with the higher animals, or with man. Do not let us anticipate our conclusions, lest it should detract from the interest of our investigations. But I cannot help throwing out the suggestion, in this place, that alcohol "supports vitality" precisely as the lash *supports* the jaded horse. It will cause the animal to increase his efforts, it will "develop his nervous and muscular energy," but the vitality, instead of being whipped into him, is whipped out.

A correspondent of the New York *Herald*, in writing from the Union army in the vicinity of Vicksburg, on the Mississippi, states that the negroes there will work well "under the combined stimulus of whisky, tobacco, and whipcord."

The tobacco probably supplied the inducement; the whisky furnished the power, and the whipcord provided the "military necessity."

But does any one seriously imagine that whisky, or tobacco, or whipcord, or all together, really added to Sambo's ability to labor, or to his power of endurance? Would any rational person work his horse on that principle, unless he was willing to work him to a speedy death? We return to the experiments.

And now, having satisfactorily disposed of the plants, the leeches, and the frogs, we come to the turtles.

"Fontana states that turtles were (cured? I beg pardon,) *killed* by spirit administered through the stomach, or injected beneath the skin."

Certainly this result ought to convince every reflecting turtle that alcohol is a first rate medicine for man! If there is a single one of these conchological reptiles carrying "the house he lives in" on his back, in all the mud-bottoms of the coast, who cannot appreciate (when subjected to the experiment), the force of this illustration, he ought to be sent to a medical school!

"Before death," says our author, "the animals became motionless." This fact corresponded with the theory that alcohol diminishes vitality, and shows a remarkable coincidence in the manner in which alcohol occasions the death of frogs and

leeches. The animal became "motionless *before* death." If it had continued in motion *after* death, it would have been at least presumptive evidence that alcohol is really a "supporter of vitality."

Our author continues: "Applied to the *heart* of a turtle, alcohol *destroyed* the contractility of that viscus."

You recollect the fate of the frog's heart? Well, it served the turtle's heart in the same way. It *killed* them both. Isn't this a remarkable coincidence? Is not alcohol an excellent "cardiac" and "stomachic" restorative? and are not these experiments surpassingly grand and beautiful?

The alcohol, the poison, the medicine, the food, has been applied to the *bodies, extremities, stomachs, skins, brains, spinal cords, crural nerves, and hind legs* of certain lower animals with one uniform result. They each and all "gave up the ghost." Is not the inference logical that if alcohol kills all the lower animals, it must be a grand medicine for all the higher animals?

Let us go on with the experiments. And next, the birds of the air are laid under contribution to the cause of medical science.

"M. Flourens administered a few drops of alcohol to a sparrow, *whose brain he had laid bare*. In a few minutes the bird began to be *unsteady*, both in *walking* and *flying*." Wonder of wonders! and this was a *sick bird*, that is, if taking off the skull is a pathological performance!

"In some other *very interesting* experiments, Flourens observed that alcohol produced the same effects on the *movements* of birds as *the removal of the cerebellum*," with this difference, "that when alcohol was administered the animal lost the use of its senses and intellectual faculties; whereas, when the cerebellum was removed, no alcohol being given, it preserved them."

Alcohol has a worse effect on the senses and intellect than removing a part of the brain does! Would not a moderate drinker, or an immoderate drinker, be offended if we should tell him that his senses and intellect are in a *worse* condition

than they would be if he was a teetotaler, and had all the cerebellar portion of his brain taken out of his head? But this is medical science.

We go from the birds to the fishes, which are also made to suffer some for the cause of suffering humanity.

Says Pereira: "The effect of alcohol on fishes is analagous to that on other animals."

Who could have suspected this, *a priori*? Fishes, birds and reptiles in the same category? Let us have the particulars.

"If a little spirit be added to water in which minnows are confined, the little animals make a few spasmodic leaps, and become incapable of retaining their position in the water, but float on their sides or back."

This is an insinuation that the minnows are drunk! Who has not known specimens of the genus *homo*, after swallowing water to which a little spirit had been added, make spasmodic demonstrations on the sidewalk, and become incapable of maintaining the perpendicular *out of water*?

It seems to me that a vast amount of cruelty to animals might be saved by trying alcohol on the largest instead of the smallest creatures—an *elephant* or a *whale*, a *mammoth*, or *leviathan* himself. By ascertaining the exact quantity of liquor it requires to send him to the "future state," we can, by easy arithmetical calculation, determine the exact proportion required to dispose of an animal of any given dimensions.

A very pretty sum for cyphering would be: If one gallon of alcohol will *kill* a whale, one quart *destroy* a horse, one gill *finish* a turtle, one drachm *paralyze* a frog, one scruple *dement* a sparrow, and one drop *extinguish* a shrimp, how much will be required to *vitalize* an infant, *restore* a child, *strengthen* a youth, or *cure* an adult?

Ascending in the scale of being, from the fishes, the domestic animals come up for experimentation and martyrdom.

Says Pereira: "The mammals on which the *effects* of alcohol have been tried, are *dogs*, *cats*, *horses*, *rabbits*, and *guinea pigs*." The principal experimenters have been Courten, Fontana, Viborg, Brodie, and Orfila.

But now it is the "effects" of alcohol that are to be tried not the alcohol itself. What are the effects? Ask the plants, and the leeches, and the frogs, and the turtles, and the birds, and the fishes. The effects are, paralysis, debility, intoxication, spasms, death. Is it these that are going to be tried on dogs, cats, horses, rabbits, and guinea pigs? Mark you; we are dealing with science, and we must be precise with our technicalities.

But let us pursue the record: "Four drachms of alcohol, injected into the jugular vein of a dog, coagulated the blood, and" (cured him immediately? O, no,) "*caused instant death.*"

Poor growler! what an awful dispensation of Providence! The dog died of *apoplexy*, of course. When human beings die suddenly of apoplexy, after having got so much alcohol into their veins that the blood suddenly coagulates, the verdict of the Coroner's jury is always, "Visitation of God." Who ever heard of a death of "coagulation," or of "alcoholosis," or of "respiratory food?"

But it is the alcohol itself, after all, and not its "effects," that we are experimenting with. The language was ambiguous. We resume the narrative.

"Introduced into the stomachs of cats, dogs, or rabbits, it produces apoplectic conditions."

So it did when introduced into the jugular vein.

"On examining the bodies of animals that have been *killed* by introducing alcohol into the stomach, this organ has been found in a state of inflammation."

So much for the animal kingdom. Perhaps there will be a change of programme, when we come to human beings.

Pereira says: "The effects of alcohol on man are those of a powerful caustic and irritant poison."

The same old tune, with very slight variations! To plants alcohol is a "rapid and fatal poison." To man it is a "caustic and irritant poison." To both it is directly *killative* under all conditions and circumstances. Why should it not be at the very head of the *materia medica*? It is.

Suppose some amateur farmer, who does business in the

city, and has his country seat a few miles out, should have a sick plant, a dear little rose, it might be, or a favorite plum tree, or a promising grape-vine, and in his anxiety to save it he sends a hundred miles for some learned graduate of the schools? Do you think the doctor would prescribe alcohol?

If the rose buds looked wan and drooping, and the plum-tree leaves were pale, yellowish, and the vine was mildewed, would not the physician, especially if he were both a chemist and physiologist, recommend a little "spirit" to invigorate its circulation and "support its vitality?"

And why not? The laws and conditions of organic life are the same in plants and animals, and if alcohol is good for a sick child or a sick man, it is equally good for a sick flower or a sick tree.

If it is a sick plant, the physician and the farmer will treat the case alike. Both will loosen the earth, aerate the roots, regulate water, light, air, sun and shade; in a word, supply the conditions the plant requires for self-restoration. But if it is a sick child the farmer can do nothing, and the physician can only think of ale, beer, wine, porter, &c. Yet say the authors: "On plants, alcohol acts as a rapid and fatal poison." "The effects of alcohol on man are those of a caustic and irritant poison."

Pereira continues: "To whatever part of the body (of man) alcohol is applied, it causes contraction and condensation of the tissue, and gives rise to pain, heat, redness, and other symptoms of inflammation."

Well, this "developed nervous energy," and this "augmented vitality," are inflammation, after all! And here we have the positive demonstration that stimulation and inflammation are one and the same thing. If a person is stung by a wasp, the injured part becomes painful, hot, red and swollen; it is *inflamed*. If he applies alcohol to the part, it becomes painful, hot, red, and swollen; it is *stimulated*. Is it not marvelous that, in the light of these familiar facts, medical men can be so deluded?

And now we have got ourselves in the category with plants,

leeches, frogs, turtles, birds, fishes, dogs, cats, horses, rabbits, and guinea pigs. Are we to be disposed of in the same way?

Pereira divides the remote or constitutional effects of alcohol on man, into three stages or degrees:

1, Excitement; 2, Intoxication; 3, Coma or true apoplexy.

In plain English this means:

1, Slightly fuddled; 2, Decidedly delirious; 3, Dead drunk.

Pereira names several diseases which are especially attributable to the habit of using alcoholic liquors, and among these are:

Mania, Delirium Tremens, Insanity, Tubercles of the liver, Inflammation of the stomach, scirrhus of the stomach, Granular disease of the kidneys, Apoplexy, etc.

WHAT THE EXPERIMENTS PROVE.

And now, where are the remedial virtues of this alcoholic medicine? We have been through all the "*provings*," and have found nothing but disease and death. I cannot see that these cruel and useless experiments prove anything except the particular manner in which the animal operated on sickens and dies—the *modus operandi* of giving up the ghost. And these symptoms of disease, and these processes of dying are called "physiological effects." And all the medical authors tell us of the *physiological* action of alcohol! Can there be a more absurd use of language? I should think its action was in every sense pathological, if it really had any action at all, which, by the way, it has not. Its *effects* are pathological. It occasions nothing but morbid conditions. It is purely and simply a toxicological agent. No one would so misuse language and stultify himself as to speak of the physiological effects of the bite of a rattlesnake, or the physiological action of the virus of a mad dog, yet such language would be just as consistent, just as scientific, just as proper, and just as truthful as are the phrases, the physiological effects and the physiological action of alcohol.

A MUDDLE.

And now having demonstrated that all of the therapeutical *virtues* of alcohol are toxicological properties or pathological consequences—morbid actions and conditions—Pereira tells us that it is employed *medicinally* as a “stomachic stimulant,” as a “restorative,” and as “a powerful excitant to support the vital powers.”

Was there ever any reasoning like unto medical reasoning? He has proved alcohol to be a powerful *debilitant*, and so he recommends it as a *powerful restorative*!

He informed us to begin with, that alcohol is an “irritant poison.” An irritant is a disturber. To irritate is to occasion disorder. Irritation in the domain of organic life means disturbance, or an abnormal state of vital action. Disease is nothing more nor less than disturbed or abnormal vital action. Alcohol occasions irritation, hence alcohol produces disease. When applied locally alcohol occasions irritation of the part, local irritation, local inflammation, local fever, local disease. When taken into the system alcohol occasions irritation of the whole system—general irritation, general stimulation, general fever, general disease, and this is called *stimulation*. Irritation, inflammation, fever, and stimulation are convertible terms. Technically, irritation and stimulation differ only in the extent of the disturbed vital action. Local stimulation is irritation, and general irritation is stimulation; a high degree of irritation is inflammation, and a high degree of stimulation is fever. Hence the idea that irritants or stimulants can “support vitality” is as absurd as is the idea that inflammation or fever, or disease can support vitality. Irritation and inflammation are, indeed, manifestations of vital action, but it is *destructive* action. Constructive or restorative vital action is quite a different thing. And it would be healthful for these patients if medical men understood this.

If we turn to the Lexicographers for information to help us out of the difficulties in which Pereira and the “provings” have left us, we find that the medical dictionary places alcohol in the list of *inorganic poisons*, to which class it belongs, as

well as "brandy, wine, and spirit of every kind." These are therefore placed in the category with lead, mercury, antimony, arsenic, vitriol, etc.

It is true that both Leibig and Pereira give us an "alcoholic alimentary principle," and that they place "brandy, beer, wine, and spirits in the list of foods; yet when it is shown in what manner an inorganic poison nourishes an animal tissue, it may perhaps be with some show of reason concluded that alcohol supports vitality.

THE ROOT OF THE DIFFICULTY.

But the root of this false logic is here: Medical men have assumed—and this false doctrine which originated in the dark ages, has prevailed ever since, nobody having disputed it—that *alcohol acted on the living system*, and thereby forced it to perform some functional duty. This I say is the primary, the grand fundamental error of the medical profession; an error which applies equally to all drugs, medicines and poisons, and on which they have reared a vast superstructure of false principles and misarranged facts, and which applied to the treatment of diseases, has been vastly more injurious than useful to the world. It is indeed the parent source of all the false doctrines and erroneous practices which have ever prevailed in the medical profession.

ALCOHOL DOES NOT ACT AT ALL.

Instead of alcohol acting on the living system, the living system acts against the alcohol. The living system does not act *on* alcohol, as it acts on food, to digest, to appropriate, to use it; but it acts *against* it, to resist it, and to expel it, as it does all other poisons. And the doctrine that any medicine, or any thing, acts on the living system, in virtue of a "special affinity," on some one of its organs, or structures, is one of the egregious fallacies of medical men. There is no such thing in nature, whatever may be found in medical books.

THE MYSTERY OF STIMULATION.

Alcohol is said to be a *stimulant*, and, as a stimulant, it is said to support the vital powers. But if a person take several supporting doses of the drug, he becomes very suddenly "powerfully weak," utterly prostrate; all at once the stimulant has become a depressant. How is this? The profession cannot understand it. It is one of the mysteries of medical science.

Now, in the light of vitality, this subject is as clear as sunshine. *What is stimulation?* Not, as I have already explained, the action of a poison on the living system, but the action of the living system in its efforts to expel a poison. This is why stimulation is always an exhausting, and never a supporting process. This is why "keeping a person up" on stimuli is a sure method of sinking him down. Stimulation, inflammation, and fever, as I have said, are all morbid conditions, and are all occasioned by poisons or impurities of some kind. Pure food, pure water, and pure air, do not stimulate in the least.

PRINCE ALBERT.

Allow me to refer to a single case to illustrate the positions I have advanced—that of the late Prince Consort. A few months ago the whole civilized world was shocked by intelligence of his sudden and unexpected death. Why did he die? In the prime of life, of vigorous constitution, temperate and regular in his personal habits, and unusually intelligent on physiological subjects, he had just reached the age when, with a mind well stored with knowledge and disciplined by the experiences of youth and early manhood, his best and his truest life should have begun; when he was just prepared for his highest usefulness, and when his family, his country, and humanity peculiarly needed his living presence on the earth.

The story came across the waters that the Prince had "gastric fever." But why should a strong, hale man die of a little fit of indigestion? It was also stated that the illustrious pa-

tient was kept up for six days on stimulus. But where was he on the seventh? We are told that after six days his system "refused to respond" to the stimulus, and that then *he died!* Why did his system refuse to respond to the stimulus? I answer, because all of his vitality had been stimulated away.

When I read the announcement of the death of Prince Albert, I was in Washington city. I had gone there to deliver some lectures, and to save, if possible, some of the officers and soldiers of our armies from dying of alcoholic medication, when they had pneumonia, typhoid fever, measles, etc. And I have the satisfaction to know that my mission there was not wholly in vain; and I feel something like a presentiment that my mission here will not be entirely fruitless.

I stated to a large audience in the Smithsonian Institute—that magnificent temple of science for which we are indebted to the munificent philanthropy of a generous and loyal subject of your good Queen, that our soldiers were dying of grogrations and grog-medicines faster than they were dying of confederate bullets and rebel bayonets. I said this in the presence of men of science, members of Congress, and military surgeons. And nobody publicly disputed any of the propositions I advanced there, and I think no one will publicly controvert the positions I advocate here.

When I read the story of the death of Prince Albert, I exclaimed involuntarily; "Oh! this awful delusion; how long, *how long*, before medical men will understand that *stimulation is not nutrition?* When will the world learn that stimulus causes disease and waste, instead of imparting health and vitality?"

I watched the medical journals for an explanation of his case, and for the particulars of the treatment. But I found nothing on the subject except a couple of brief articles in the London *Lancet*, for February, 1862.

From these I learn that on Sunday, December 8, 1861, the Prince Consort, according to the official bulletin of his four distinguished medical advisers, had a "feverish cold." On

Wednesday and Thursday following, there were no unfavorable symptoms. On Friday, he was worse. On Saturday, he died. The death was certified to be of *typhoid fever!*

A remark or two made by the *Lancet*, has more significance than would appear to the careless reader; perhaps more than the writer intended.

The *Lancet* is evidently puzzled for a satisfactory theory of the unexpected death, and resorts to what seems to us as *special pleading* in the case. It says of typhoid fever: "This is a disease which has inevitably proved far more fatal to sufferers of the *upper class* than to patients of the poorer kind."

Why should a wealthy person be more liable to die of typhoid fever than a poor person? If there is any virtue in superior hygienic conditions, and in the most eminent physicians, the difference should be the other way.

In the light of the premises I have advanced, the answer is not difficult. The richer the patient, and the higher his position in life, the greater will be the effort to save him; the more numerous the physicians, and the stronger the medicines; and if alcoholic stimulus be the leading remedy, of course, the greater quantity of that. The Prince had four physicians.

The *Lancet* remarks again, in allusion to his case: "Even the least sanguine had no anticipations of the slowly, but surely increasing debility, resisting all efforts to stay its progress, under which the Prince gradually sunk."

What were these efforts to stay the progress of the "increasing debility?" Stimulants, of course. I am of opinion that it was the stimulus which occasioned the fatal debility.

But, if the untimely death of Prince Albert could be the means, under Providence, of leading the scientific world to a thorough investigation of the nature of alcoholic stimulus, and dispel, forever, from the minds of medical men, this most fatal delusion, that stimulus is a substitute for, or in any way gives strength—although I should respond from my inmost soul to that universal wail that went up to Heaven from the national heart of hearts, and which expressed itself in those

sweetly tender words of womanly love and sympathy, "Oh! the poor Queen;" and while I should pray God to console and comfort Her Majesty, still I should almost rejoice that His providence had thus afflicted the Queen, and the nation, and the world—God grant that such terrible lessons be not always lost upon His children.

Shade of the immortal bard! I find myself, for the first time, in the land of him who drew the portraiture of human nature to the life, and I am reminded of his testimony concerning that "enemy which men take into their mouths to steal away their brains." And these fearful words seem almost to be blazoned on the walls before my eyes.

"O, thou invisible spirit of wine! if thou hast no name to be known by, let us call thee devil." And if this thing is devil, as a beverage, is it not *doubly devilish* as a medicine? Call the maddening draught when it "giveth its color in the cup," fire, fury, fiend or demon; but devil, and double devil damned, are feeble epithets to express the infernal nature of alcoholic *medicine*. O, if alcohol must be administered to God's image, for any purpose, give it to the well, and not to the sick. The well man can better resist its effects; he may have time and opportunity to break the spell of the murdering basilisk. But do not take the sick man in his extremity, when life and death are trembling in the balance, and when a feather's weight of adverse influence, though he be in the full maturity of manhood, may extinguish the vital spark forever, as the red lightning flashed from His thunder-throne in the far off clouds, in an instant, blasts the tall pine, or shivers the stalwart oak.

Is the Bible right when it declares that "strong drink is raging?" Is that portion of the Bible inspired, which says, of the alcoholic bane, "at the last it biteth like a serpent, and stingeth like an adder?" Does the Bible make an exception in favor of alcoholic medicine in those fearful interrogatories, "who hath wo? who hath sorrow?"

The time will surely come, it *must* come, when medical men will wake from this unfortunate and fatal delusion, that alco-

hol is in any proper sense remedial. And then they will look back through the long vista of centuries of alcoholic medication as upon a dream of horror; as they would survey a battle field covered with mangled and the dying, where human beings meet on purpose to destroy each other. And they will then see that, when they supposed themselves to be practicing the "Healing Art Divine," they were really warring on human constitutions, and sending their fellow-beings in droves to premature graves. God will forgive them, for they knew not what they were doing.

MR. BUCKLE'S CASE.

The late Mr. Buckle's case is also instructive. He was seized with typhus fever at Damascus, April 21, 1862, and died on the 29th. Says his traveling companion, Mr. Glennie: "The stimulants applied by the American physician, Dr. Barclay, who went up from Beyrout, expressly, had only the effect of producing the partial and very temporary return to consciousness, which preceded his disease." Thus we learn that he *was* stimulated—the presumption is, severly—but how long and to what extent we are not informed.

THE VITAL PREREQUISITE.

I have long been of opinion that, until alcoholic medication is abandoned by the medical profession, the use of intoxicating drink will never be relinquished by the people. Nor can I understand why it should be; for precisely the same arguments which justify the one approve the other. And I am of opinion that temperance physicians, who talk "cold water as a beverage," and prescribe alcohol as a medicine, are doing a great deal more harm by their practice than they are doing good by their preaching.

TEMPERANCE QUACK DOCTORS.

A physician in New York has realized a large fortune, and built a gorgeous palace, from the proceeds of a medicine whose essential ingredients are alcohol and sugar, and which he sells

under the name of "compound syrup of Sarsaparilla." He is a temperance man, a high official in a state temperance organization, and gives liberally to the temperance cause—perhaps he contributes to the cause one-tenth of the profit he makes in selling sweetened alcohol to the temperance people. He is also a strenuous advocate for some other reforms, and no doubt he expects to get to heaven on the principle of

"Compounding for sins he is inclined to,
By damning those he has no mind to."

And all of the empirical nostrums which flood the land, under the names of "Nervous Antidote," "Invigorating Cordial," "Plantation Bitters," "Purifying Syrups," etc., etc., and swindle the deluded people of millions annually, owe all of their power to charm to their alcoholic constituent, while the quacks themselves are indebted for all of their power to humbug and rob the people, to the false doctrines of the medical profession in relation to alcoholic stimulation.

Obliterate these false doctrines from medical schools and books, and the pestiferous race of empirics will soon run out. Teach the people the simple truth in relation to the nature of disease, the *modus operandi* of remedies, and the theory of stimulation, and we shall have a basis on which to prosecute the temperance and health reforms.

WHERE THE BLAME LIES.

Curse the rumseller, who has thus robbed a man of himself, a wife of her husband, and children of their father, would I? Wherefore? No; curse rather the public sentiment which has made him a rumseller. Punish him? No. Punish society, which authorises his trade, or at least, tolerates him. Blame the miserable victim? Apply opprobrious epithets to the poor degraded sot? Oh, no! Not until you have reformed the false doctrines of the medical profession.

Of course I do not mean to accuse the medical profession, nor any medical man, with intending to oppose the temperance cause. They are honestly deluded. They are conscien-

tious, but in error. They act consistently with their doctrines, as I do with mine. I do not blame them, but I deplore their mistake. Their influence is against temperance, simply because their doctrines are false.

A NATIONAL MEDICAL CONVENTION.

A few years ago, the American Medical Association convened in St. Louis, Missouri, and as usual when a great many great men from great distances assemble in a great city on a great occasion, they had a great dinner; and they had a great amount of grog with it. A friend sent me a printed copy of the bill of fare, on which I counted precisely *forty kinds of alcoholic liquor!* But I do not censure the doctors for such practices. I only blame the theory which leads to them. No doubt, after having performed their arduous duties, they wished to "support vitality," and so they went rather extensively into "respiratory food!"

THE HIGHER LAW.

Now I hold it to be the duty, as well as the privilege of human beings, to act out their convictions. I believe in the "higher law" of conscience. Whatever conscience declares to be right, men should do. But they should have enlightened consciences, and to this end they should seek to know the exact truth on all subjects. I do not blame some of the members of the Medical Convention for becoming a "little elated," nor others for getting uproarious, breaking tumblers, smashing decanters, and having a jolly time generally, as they are reported to have done, if they really believe that alcohol is so redolent of remedial virtues. I do not find fault with the consequences; I blame the cause.

I cannot hold any person responsible for his conduct, while he is in a state of intoxication. He is delirious and demented. He is insane. He is a maniac. He knows not what he is doing. He cannot control his conduct. The blame is in drinking the liquor. Whether, after he has swallowed the "supporter of vitality," the "respiratory food," or the "caustic

and irritant poison," as the case may be, he talks amusingly, gibbers nonsensically, assaults his neighbor, or murders his wife or child, it is all the same, so far as responsibility is concerned. I would no sooner hang a drunken man for killing his fellow-being, than I would hang a sane man for drinking intoxicating liquor, or his neighbor for selling it.

IS ALCOHOL FOOD?

What are the scientific facts, with regard to this supremely ridiculous nonsense of the "alcoholic alimentary principle?" It will not bear the ordeal of a moment's scientific examination. When the data are analyzed, this notion will be found quite as absurd as its twin-postulate, that alcohol is a supporter of vitality. When Liebig announced to the world that alcohol is "respiratory food," and used in the system as a "heat-forming" material, he put the temperance reform back, at least a quarter of a century. But if this doctrine be true, I desire to abide by it, be the consequences what they may. I cannot, I will not, knowingly oppose any truth. I do not controvert science. I am not warring upon the intelligence of the age. I am only exposing error, refuting falsities, and opposing the absurd vagaries which have come down to us unchallenged and uninvestigated from the dark ages. I am not disputing facts, but explaining them. I am not denying correct principles, but controverting false assumptions. It is the business of the true physician to interpret the book of nature—to explain the laws of God as revealed in and through the vital organism. Nature's outspread volume is my only text-book of authority. Whatever it teaches, I do most implicitly believe. And if the professors of science mistake the teachings of this book—if they pervert or misapply the data of science—I have the right, and it is my duty to expose the error and disclose the truth if I can.

Alcohol is not food, in any sense whatever. In the light of true science, the assumption is a self-evident absurdity. What is food? The correct answer to this question settles this part of our controversy. Food is that which is convertible

into the substance of an organized body. Food is whatever can be used in the formation of the bodily organs and tissues. Alcohol cannot be so used.

THE FALLACY OF LIEBIG EXPOSED.

How came the great Liebig to make this great blunder? Just as chemists, and physiologists, and physicians, are continually making blunders. They take morbid appetites instead of the unperturbed instincts as their rule of judgment. They take fickle and depraved human habits as their criterion of truth, instead of the fixed and unalterable laws of nature. Their philosophy comes from the kitchen and the cook, more than it does from nature and the Author of nature.

Liebig noticed that there was extant, an appetite for alcoholic drink, and that this propensity was indulged. Liebig seems never to have doubted the propriety of drinking liquor—or perhaps we should say, of *eating it*, as adults do not *drink* food. It seems never to have occurred to Liebig, that appetites may become morbid or perverted, and may crave things which are neither useful nor usable in any sense—tobacco for example. Liebig is a chemist; and as an analytical chemist, is, perhaps, unsurpassed.

RELATIONS OF CHEMISTRY AND PHYSIOLOGY.

But chemical data can never explain physiological problems. These sciences are as different as life and death. As a chemist, Liebig sought to ascertain what *use* the living system makes of alcohol. He never conceived, that it is not used at all, and in the very nature of things cannot be. From the data, that there is, in many persons at least, a desire for alcohol, that alcohol has no elements capable of becoming proximate constituents of the tissues, and that the system experienced a sensation of warmth after taking it, Liebig had an easy jump to the conclusion, that alcohol is employed in the vital organism as a “heat-forming” material; and thus was born the pseudo-scientific monstrosity of “calorifacient” diet. The same reasoning would make cayenne pepper “heat-form-

ing" food; the same logic would make the bite of a serpent, a "supporter of vitality," the sting of an adder, "respiratory food," and the swallowing of a spider, a "stomachic restorative."

Another simple fact settles the whole controversy. *Alcohol passes through the system unchanged.* Unless it is in some way altered, decomposed, diminished, changed or transposed, it can impart nothing. It cannot be used. It can supply neither the element of combustion nor of tissue. It can neither give substance nor heat. Food proper, undergoes decomposition; its elements are rearranged; it is actually transformed. An apple, a potato, a piece of bread or beef, when subjected to the digestive process, is formed into blood, bone, muscle, nerve, brain, etc. It is then used as force-material and reduced to ashes; and the ashes—the debris of the disintegrated tissues—are expelled by the excretory organs in the form of sweat, bile, urine, feces and carbonic acid gas.

Alcohol is not digestible. It is taken into the system as alcohol; it is carried through the system as alcohol, and it is expelled from the system as alcohol. If a potato, an apple, a piece of bread, or beef, was expelled from the system as potato, apple, bread, or beef, no one would think it acted or served the part of food. Why must learned men, who can reason rationally on all other subjects, talk nothing but absurdity and nonsense when alcohol is mentioned?

Is it not strange that physicians, who confess they cannot tell in what manner alcohol is used in the organic economy, still persist that it is used in *some way*? Is it not passing strange that medical men will confess that alcohol passed unchanged through the system, and yet insist that in some marvelous and incomprehensible manner, it *does* something, or *imparts* something?

The blunder, however, in relation to alcohol, has been applied to other remedies, particularly, the preparations of iron. Not understanding the rationale of the effects of alcohol, they have prescribed many other poisonous agents—most disastrously, too—for their patients, on the hypothesis, that they

also imparted some useful or necessary element or constituent to the organs or tissues. Iron is extensively employed as "blood-food," and as a tonic in cases of impoverished or deficient blood, impaired nutrition, debility, ænemia, cachexias, etc.; and most people seem to think it is perfectly harmless. The delusion is analagous to that concerning the medicinal effects of alcohol. Iron in all its forms and preparations, occasions a feverish condition of the system, and an inflammatory state of the blood. It is an irritant, a stimulant, a blood-destroyer, a nerve-exhauster, a poison, as is alcohol.

DISTINCTION BETWEEN FOOD AND POISON.

The Law of Organic Life, which applies to the solution of the problems before us, is this: Whatever the living system cannot use, it must reject. And here is the distinction between foods and poisons, which, by the way, we do not find in medical books. Whatever the living system cannot appropriate as food, it must expel as effete matter, as foreign matter, or as poisonous matter.

And here is the doctrine of *use and abuse* in the vital domain, so much talked about and so little understood. Here is the rule by which we are to determine whether a given substance is *useful or injurious*. And by this rule we learn at once, that all use of alcohol, or of the preparations of iron, is abuse. An animal organism cannot digest, cannot assimilate, cannot *use* inorganic substances, to which category iron and alcohol belong.

ALCOHOL AS A CALORIFACIENT.

But does not alcohol in some way *impart heat* to the body? I answer, no. It imparts nothing. If it did, it would be changed, and would not pass out as alcohol. If it nourished the tissues, it would be decomposed, and pass off as excrement. If it imparted heat, it would be consumed, and pass off as smoke, vapor, or ashes. But if it simply passes unchanged, and does nothing, and imparts nothing, how can it "give tone," "restore strength," or "support vitality?" No-body will pretend that strength, or vitality exists *in* alcohol:

and if it does not exist in it, how can it be obtained from it? "But alcohol occasions heat." So it does. So does arsenic, mercury, antimony, nitre, and all the most deadly agents of the *materia drugica*. But who suspects any poison that was ever swallowed, except alcohol, of being "heat-forming" food? Call them all, alcohol included, heat-occasioning poisons, and we can understand the language.

"Heat-forming" food! What is heat? It is not settled that heat is a substance to be imparted. It is not a substance to be created. It is not a thing to be formed. According to the best authorities, *heat is motion*. The sensation of heat, is our recognition of the degree or intensity of the motions of the particles of matter. If a body imparts to us the sensation, or rather, if we recognize in a body the sensation of high temperature—if it be hot—it is because its molecular particles are in rapid motion—the consequence of some disturbing agent or influence. Alcohol occasions *preternatural* heat in the vital domain, only as a disturbing agent, and all heat thus produced, is of the kind properly termed fever or inflammation.

THE MUDDLE UNMUDDLED.

We see now where the error is with the learned men. They have mistaken *vital resistance* for a *physiological process*; they have mistaken *morbid action* for *normal function*; they have mistaken *inflammation* for *nutrition*; they have mistaken *fever* for *food*; they have mistaken the *expenditure and waste* of the life-principle, for its *accumulation and supply*; in short, they have mistaken *disease* for *health*.

This mistake, and the doctrines and practices which necessarily grow out of it, are the chief sources of all the dissipation and debauchery in the world, and much of the vice and crime. It is an error which utterly confounds all distinctions between foods, poisons, and medicines. In fact it makes a rational distinction impossible. Must I tell you that medical authors do not give us any definition of the word food?

This fallacy which mistakes stimulation for strength, under-

lies all the false doctrines and erroneous practices of the medical profession, which are so effectually paralyzing the temperance cause, and so rapidly destroying the human race.

A FALSE THEORY OF DISEASE.

Because of this primary error, that stimulation is strength—that external objects act upon the living system, involving the Brunonian fallacy that “life is a forced state”—the medical profession has an entirely erroneous theory of the nature of disease, and of the action of remedies, and I am perfectly certain that they will never treat diseases very successfully, until they experience a radical change of opinion. I do not believe it is possible to predicate a successful practice of the healing art upon a false medical science. Common sense has never yet been applied to the investigation of medical problems, as it has to all other subjects.

DISEASE IS REMEDIAL EFFORT.

Disease, I have said, is just the contrary of what is taught in medical books. It is remedial effort. “But how,” it may be objected, “can a remedial effort occasion loss or waste of vital power?”

I answer, just as a nation wastes its resources in war. War is remedial effort. It is national disease, although it may be necessary. Disease is an *action* to cast out impurities. It wastes the vital power, just as a man would expend his strength in ejecting a thief from his premises.

If a thief or a mad dog should get into your house, and you should go to work with all your might to expel it, and if, while so engaged, a friend who intended to “aid and assist” you, should come up behind your back, and burn you with a red hot poker, or if he should throw cayenne pepper into your eyes, he would cause you to let the thief or the dog alone, and go to fighting the poker or the pepper. He would arrest your remedial effort in one direction, by inducing it in another. He would thus “cure one disease by producing

another." But the thief or the dog would remain. And this is a perfect illustration of the manner in which drugs cure diseases, and in which alcohol "supports vitality."

STIMULATION AND FEVER.

Let us return for a moment to the nature and relations of stimulation and fever. What is fever? Simply, as I have said, a process of purification. Fevers are not intrinsically dangerous. Nearly all of the danger results from the erroneous manner in which they are ordinarily medicated. The terrible typhus or typhoid fever, of which so many people are said to be dying continually, is not in itself dangerous. No person can have a fever, unless there are obstructions in his system which ought to be removed; and the fever is the attempt to remove them. So far, therefore, from being dangerous, it is dangerous not to have a fever, provided the causes exist. There may be circumstances or complications which will render the remedial struggle unsuccessful; but the disease is a remedial effort nevertheless. And when this principle is recognized by the medical profession, we shall very soon have a great, indeed, a complete revolution in the manner of treating fevers.

No one would allow himself to be stimulated in a fever, or as a restorative process at any time, if he understood the rationale of stimulation. No physician would ever prescribe alcohol as a medicine, if he could explain its *modus operandi*. No person would ever think of taking alcohol into his system during the presence of a fever, if he knew what a fever was. If he knew the true nature of a fever, he would fear to "break it up," as much as he would fear to *break down his constitution*. He would be as unwilling to have his fever "subdued," as he would be unwilling to *incur a worse chronic disease*. And if he understood the manner in which alcohol "supports vitality," or "develops nervous energy," he would regard the alcoholic treatment of fever, like *curing a disease by killing the patient*.

If a fever is a process of purification, certainly it should not be "suppressed," "subdued," "counteracted," "opposed,"

nor *killed* nor *cured*, in the ordinary sense of these terms. It should be aided, assisted, and regulated. A fever is not a *substance*, but an *action*. It is not an *entity*, but a *disturbance*. It is not an *enemy*, but it is *defensive war*. It is not a *thing* to be *destroyed*, but a *process* to be *directed*.

Medical journals are discussing, to this day, the nature and seat of different fevers. Fevers have no "seat." Medical books tell us that fevers "attack" us; "go through" us; "run their course;" and that some of them are "self-limited," etc.; they "set in," "supervene," etc.; *they come in, run out, travel about, locate, emigrate and immigrate, advance, retreat, capture or capitulate*, as though they were independent existences, imps, spooks, ghosts, or goblins. How absurd! Did it ever occur to our medical philosophers to imagine *where* a fever was when no one had it? *Where* was it before it "attacked" the patient? *Where* did it go after it had *left* the patient? In what form, shape, condition, or place, does a fever exist *outside* of the living organism? What has the profession been doing for three thousand years that it has never thought of these things?

On the theory that fever is a thing, which must of necessity run a certain course, and which, in the language of Dr. Bigelow, of Boston, "derives laws from its own nature," physicians predicate the use of stimulants. And since the doctrine of the self-limitation of disease has come in vogue, the use of alcoholic stimulants has greatly increased.

The tendency of fever is to depress and weaken the patient, and alcohol is given to "support vitality"—to "keep him up," until the disease has run its course. But once admit the principle, and where are you going to stop? There is no stopping-place this side the grave. Persons are weak and depressed in many ways, and from various causes. Why not resort to alcohol? Well, they do and there's just the mischief. And so the principle is established, that alcohol is a universal panacea.

But we do not stop here. If alcohol will *cure* disease, why will it not *prevent* disease? If it will make sick folks well,

why will it not make well folks better? If it will obviate the effects of debility, why not prevent debility? The logic is sound, and alcohol is employed as a preventive of disease.

GROG RATIONS.

The grog and spirit rations of navies and armies have caused a fearful amount of drunkenness and insubordination. The Scotts, and the Wellingtons, and the Havelocks, have testified that intoxicating drink is the chief scourge of the sailors and soldiers. During our impending war, the rum-fiend has everywhere followed our armies like a pestilence, and although the military authorities have often testified against it, and sometimes banished the sutlers, and smashed the heads of their whisky barrels, the evil is not stayed. Why, our Bull Run disaster, of which you have heard so much, was a *liquor-panic*. And no sooner did our army of the Potomac find itself in the swamps of Chickahominy, than *double rations of whisky* were issued; not to cure fever, but to *prevent it*.

We see again how effectual, how all-potent is the influence of medical men on this question. And why should it not be? It is their business to determine all questions which in any manner concern the cure of disease and the preservation of health. For this they are employed, and paid, and for this they have been educated. From their decision there is no appeal. And if they are mistaken in their doctrines, the people must be killed by their practices. There is no alternative.

On this subject there is a power behind the throne stronger than the throne itself. There is a secret, invisible influence, an all-potent something, which defeats all sanitary measures, so far as alcohol is concerned, overrides science, disregards the lessons of experience, and perpetuates the reign of the "demon of the glass." And this is nothing more nor less than the false doctrine of the medical profession, that alcohol is a "supporter of vitality."

STIMULATION AND INTOXICATION.

And on this theory it is claimed that *stimulation*, short of *intoxication*, is useful. Ah! but where does stimulation end and intoxication begin? Here is another perplexing predicament, which, like a mathematical point, has "neither length, breadth, nor thickness." And how this problem has bothered the brains of learned men, and puzzled philosophers and confounded courts, and astonished juries!

SWILL-MILK AND LAGER-BEER.

In the courts of New York we have had the question under judicial investigation, whether *swill-milk* is wholesome, and whether *lager-beer* is intoxicating? And medical men were found to have very different opinions—did you ever hear of doctors *disagreeing*?—on these subjects. Experienced lager-beer drinkers came forward by the score and swore that there was nothing intoxicating in the article; and one ponderous German testified that a whole keg of lager only made him feel "goot and shleepy."

A chemist of Columbia College was employed to analyze some of the milk which was manufactured at the New York distilleries, and he certified that it was as good, if not better than the pure country article. And a physician—a member of the New York Academy of Medicine—testified that the alcoholic ingredient in the swill-milk, was an advantage to feeble children. He regarded it as more nutritious and strengthening on account of its alcoholic quality!

A MEDICO-LEGAL POINT.

And so our judges of the courts have been obliged to decide—and surely they could not condemn the experience of a man who takes forty glasses of lager a day, nor despise the analysis of a Professor of Columbia College, nor ignore the opinion of a member of the Academy of Medicine—that, up to a "certain point," alcoholic liquors are a "refreshing beverage;" although beyond a certain point, they become an "in-

toxicating poison." But where the "certain point" is to be found, is, to say the least, very uncertain; for some will carry twenty, or thirty, or forty glasses with as little unsteadiness of gait, as others will one, five, or ten.

SIR GEORGE GREY ON EXCESS.

Sir George Grey, in the British Parliament, recently, opposed the principle of "prohibitory statute" against beer, because alcoholic beverages which, in his language, "are no doubt injurious when taken to excess, are, when taken in moderation, wholesome and invigorating." What is excess? One might as well call extensive lying very wicked, and moderate lying eminently proper and moralizing!

DISCUSSIONS IN THE BRITISH PARLIAMENT.

In all the discussions in the British Parliament, of which I have seen a report, on the subject of the beer-traffic, the opponents of prohibitory legislation have invariably based their argument on the ground, that beer is actually a nutritious and useful drink. "The laboring man," say they, "should not be deprived of his necessary *refreshment*."

But how happens it, let us ask, "My Lords and Gentlemen," that those who labor the hardest drink the least, and *vice versa*? How comes it that the British medical men testify that beer-drinkers are so difficult to cure when attacked by disease, because of their gross blood, frail tissues, and foul secretions? And why do British surgeons remark the difficulty with which wounds and injuries, even of a trivial character, heal, in the bodies of beer-drinkers? In the Crimean campaign, the British surgeons testified to the remarkable facility with which the Russian non-beer-drinking soldiers recovered of the most formidable wounds.

THE DEAN OF CARLISLE ON STIMULATION.

The Dean of Carlisle, in a temperance speech, deliberately affirmed that "there is not a greater falsehood in physics, or in

fact, than that stimulants in any degree, are necessary for men, except as a medicine.”

“Except as a medicine!” Here is the fatal rock on which we are continually being wrecked. I do most deliberately affirm—and on this issue I will be glad at any time, to meet the good Dean in a friendly discussion—that there is not a greater falsehood beneath the sun, than that stimulants are necessary for man, or useful as medicines. And on this issue I am willing to meet all the medical men on the earth. On this question I have thrown down the gauntlet to the Faculties of the Medical Colleges in places where I have lectured—in Washington, Boston, Chicago, Toronto, Baltimore and New York—but no one has yet signified a willingness to debate this question before the people.

In all the discussions which I have heard or read between the advocates for moderate drinking, and the advocates of total abstinence, the former have always got the best of the argument; and this because the teetotalers have always conceded the main premise—that alcohol is useful as a medicine. With this admission, the rumseller has all the science in his favor, and the temperance man can only base his argument on considerations of prudence, or “the least of two evils.”

DR. MUZZEY ON ALCOHOLIC MEDICATION.

Well did Dr. Muzzey, of Boston, in a Prize Essay published in 1835, declare that the sick chamber was the last hiding place of the demon, intemperance. And truly did he say that medical men had the power, and it is their duty to exorcise it from its usurped retreat. And now, after studying the subject for nearly thirty years longer, he reiterates his former statement, that alcohol is not a supporter of vitality.

But Dr. Muzzey objects to alcohol as a *medicine*, because it is a *poison*. Are not all medicines poisons? He objects to alcohol as a beverage, because it induces disease. Does not the best food, or the purest water, induce disease if improperly used? And here we are again involved in the old dilemma of “use and abuse.”

Dr. Muzzey does not place his objection to alcohol as a medicine on the right ground. He has no philosophical basis. The objection to alcohol specially as a medicine, is not because it is a poison, for this would apply as well to all the contents of the apothecary shop; it would embrace the whole popular *materia medica*. The real and the only objection to alcohol as a medicine is, *it is not useful*. Other medicines or other poisons may be one thing or another—good, bad, or indifferent. Let them stand or fall on their own merits. And, ditto with alcohol.

Dr. Carpenter entitles his prize book, “The Use and Abuse of Alcohol.” We can never do much to suppress its *abuse*, until we cease commending its *use*. And this point of *use* has been singularly overlooked. All of the temperance advocates, orators, and authors concede its *usefulness*, as a medicine. Is it not time that this, the primary question, should be investigated? I deny its usefulness, utterly and teetotally in all cases, under all circumstances.

Hundreds of eminent physicians have testified to the world that alcohol as a medicine, is wholly unnecessary. Why? Because they can find substitutes. While they confess that they can get along without it, they admit that it is good to use. It is useful, but other things will answer. These medical gentlemen condemn the act of alcoholic medication, while they endorse the principle of alcoholic medicine. And in this way their teachings have been of more advantage to the rumseller, than to the cause of temperance. So long as the people are taught that alcohol is useful as a medicine, and so long as it is convenient to obtain and pleasant to take, they will not greatly trouble themselves to find substitutes. Many who leave off liquor-drinking, find a substitute in tobacco-chewing, or tobacco-smoking, and many of these only make a bad matter worse. I am of the opinion that tobacco is a greater curse to human society than alcohol. It is, I verily believe, hurrying the human race to perdition much faster than is alcohol.

THE ERROR AND THE REMEDY.

The error and the remedy lie further back. Our temperance authors, orators, and prize-writers, have not yet touched the root of the evil. They have not even named it. And surely they can never apply the ax to the root, until they see where the root is, and what it is.

A FALSE DOCTRINE OF VITALITY.

Medical men teach a false doctrine of vitality. This is the starting-point of all the errors which prevail in relation to the nature of disease, the *modus operandi* of medicine, and the action or effects of alcohol. *Uproot* this false doctrine and our work is done. The temperance cause will then achieve its own triumph. Plant the seeds of scientific truth beside this root, and the tree of Intemperance dies. Teach this generation the true relations of living and dead matter, and the next generation will sing the song of a new redemption. Teach them to prevent disease by avoiding the causes, rather than to attempt to cure it by administering the causes of other diseases; teach them that disease is war, and that war is waste; teach them that *stimulation is disease*, and that every dose diminishes the inherent vitality of the patient; that vitality once lost can never be regained; teach them that every drop of alcohol taken into the living system under any circumstances, wastes a given amount of the unreplenishable fund of life, and that the only means which can ensure health and longevity, are purity of blood and cleanliness of body, and you will lay the true foundation for temperance reform, for health reform, for all reform, and for all enduring progress among men.

Medical men teach that external objects of all kinds—foods, medicines, poisons, etc.,—act on the vital machinery and thereby keep it in motion. And diseases, and causes of disease—morbific agents—are said also to act on the living organism.

The truth is exactly the contrary. It is on this false doctrine that dead objects are said to be active, and the living

system, passive, in their relations to each other, that medical men have adopted the absurd dogma that "life is a forced state," and thereon fabricated a theory that all diseases are owing to excessive or defective stimulation, one class requiring the tonic or stimulant, and the other the depletent or antiphlogistic plan of treatment. Both methods have been as pernicious as the theory is false. Liebig's theory of disease embodies the same essential fallacy.

THE GREAT FUNDAMENTAL TRUTH.

The great fundamental truth is, the living system is not acted on at all by dead, inorganic matter—by food, medicines, nor poisons. They are wholly passive, and the living system alone is active. Health expresses the sum or aggregate of the vital actions which nourish and develop the bodily organs and structures; and disease is vital action in the process of expelling poisons or impurities from the system, or in removing obstructions, and repairing damages.

REVOLUTIONARY SENTIMENTS.

I know that these views are radical. They may be revolutionary, so far as the popular medical system is concerned. Indeed, they are so. But this I cannot help; and I do not feel that I have any disposition to help it. *I know they are true*; and my only wish about the matter is, to have them understood. And if their recognition should damage the profession ever so seriously, so far as its emoluments are concerned—even if it should reduce nine-tenths of all the physicians of the civilized world to the necessity of seeking some other vocation than poisoning people because they are sick, I shall not be among the mourners. If ever, in "the good time coming," physicians become unnecessary, it will be because the people have become more intelligent and more healthy.

TESTIMONY OF PROFESSORS GREGORY AND WAKLEY.

And yet I do not disparage the doctrines of the medical profession any more than its own standard authors have been doing for fifty years.

Prof. Gregory of Edinburg, declared to his medical class, that medical doctrines were, for the most part, "stark, staring nonsense."

And the late Dr. Wakley, who died in June last, who held the office of coroner in London for twenty years, and who was foremost in many plans for improving his profession and benefiting mankind, has left the following sentence on record: "How little do we know of disease compared with what we have to learn! Every day develops new views, teaching us that many of what we before thought immutable truths, deserve duly to be classed with baseless theories; yet dazzled with the splendor of great names. On these theories, which have usurped the place of truth, a system of routine, empirical practice has grown up, vascillating, uncertain, and often pilotless, in the treatment of disease."

THE WESTMINSTER REVIEW ON TEETOTALISM.

A few years ago, there appeared in the *Westminster Review*, an elaborate article, which I suppose you have all read, entitled, "The Physiological Errors of Teetotalism." It was, in vulgar parlance, "a knock-down argument." Teetotalers read it and began to doubt. Rumsellers read it and were jubilant. Rum-drinkers read it and felt easier in their consciences. Neutrals read it and went over to the enemy. Newspapers all over the land noticed it, and most of them commended it. Medical journals applauded it. Scientific men approved it. Some of the leading journals declared its premises sound; others asserted that its logic was irresistible; and still others maintained that its conclusions were conclusive. Temperance journals replied feebly and ineffectually, and totally failed to meet the issues it presented.

The author proved *absolutely*—to a demonstration *from the premises*—that alcohol is "respiratory food;" a "supporter of vitality;" a useful *beverage*; a good *medicine*; and that teetotalism was indeed, a very great blunder.

But what about the premises? Why, the premises were these false doctrines of the medical profession which I have

been refuting. Admit these, and there is an end of the case. It *must* be decided against us. Deny these, and all that ingenious and plausible superstructure of facts, statistics, arguments, hypotheses, and logic, becomes but "the baseless fabric of a vision." The author of anti-teetotal physiology had a most formidable array of authorities on his side. He had all of the text-books of all of the Medical Schools; he had all of the standard works on Chemistry and Physiology; he had even the authors of Prize Essays on Temperance, from which to select his data to disprove the principle and confound the philosophy of total abstinence from intoxicating beverages.

A few years later, in January, 1861, the same Westminster *Review* published an article refuting, not the "physiological errors of teetotalism," but the physiological errors of its former article, acknowledging its fallacy, so far as "respiratory food" is concerned, and proving its fallacy, so far as a "supporter of vitality" is concerned.

It has been said that "error will travel a hundred miles while truth is putting on its boots." The article in the *Review*, proving that "grog is good," had a rapid run over the country. The article proving that *grog is bad*, has hardly yet got fairly started. I have seen no notice of it in any periodical except the notice I wrote myself. Nor has the medical profession, so far as I can learn from its journals—and I have watched them closely on this subject, ever since the advent of Liebig's "respiratory food" nonsense—in any practical manner taken any notice of the demonstration of the *Review* against alcoholic food, although it was swift to circulate and endorse all of the arguments in its favor.

EXPERIMENTS OF LALLEMAND, PERRIN, AND DUROY.

And this, too, notwithstanding the Academy of Sciences of Paris, has awarded the Montyon prize of twenty-five thousand francs to Messrs. Lallemand, Perrin, and Duroy, for their work on "The Action of Alcohol and of Anesthetic Agents on the System," in which it is shown by a series of carefully conducted and absolutely conclusive experiments, that alcohol

is neither respirable, oxidizable, nor digestible, nor in any manner usable in the organic economy, but that it passes through the system unchanged, being eliminated by the lungs, skin, and kidneys.

In Braithwaite's *Retrospect* for July, 1862, is a summary of the conclusions at which Messrs. Lallemand, Perrin, and Duroy arrived, as the result of their investigations. I commend the article to the attention of the medical profession.

These authors—Messrs. Lallemand, Perrin, and Duroy,—I should remark in this place, still retain the prejudice of three thousand years; still adhere to the dogma of the dark ages, and think that alcohol *acts in some way* on the system, although they are unable to tell *how* it acts. They say, in conclusion of their experiments, "The real action of alcohol on the organism has yet to be shown."

How near a person may come to the truth and still miss it! These authors have never suspected the real truth—that alcohol has no action at all. They prove that it has *no* action, and then they wonder *how* it acts! They have demonstrated, that in passing through the system, it is entirely passive; yet blinded by the hypotheses into which they have been educated they still believe in its *action*. How hard it is to exercise common sense when one has been educated out of it. A world of fallacy underlies this false doctrine of the *action* of alcohol.

The Academy of Sciences has given 25,000 francs for a work on the action of alcohol *on* the system, when the work itself confesses that it knows nothing about it. I wonder what appropriation the Academy will vote me, or the Temperance Societies—for giving the rationale of the subject—for explaining that alcohol has no action at all! and for calling attention to that primary law in physical and natural philosophy, and to the true starting-point of all physiological science, that the property of inorganic and dead substances is *inertia*, and that inertia, so far from being a power to act, is simply a property to keep still and do nothing! True, we are taught in some medical books, that inertia is a power.

Thus, for example, Dunglison speaks of the living tissue, as having a "power to be acted upon!" A stone may be said to have the *power* to be thrown by the living hand, but the phrase would not be scientifically correct.

ABRAKADABRA.

So long as the idea is entertained by scientific men, and by the medical profession, that alcohol *acts in any manner* on the living system, so long will it be the great *abracadabra* of the *materia medica*. This word, pronounced and repeated in various ways, was once the charm, the amulet, the incantation, to prevent diseases and cure fevers; as alcohol, pronounced "respiratory food," and "vital supporter," by Liebig, Pereira, Carpenter, Dunglison, and repeated as *rum, brandy, gin, whiskey, wine, cider, ale, porter, lager, etc.*, by the medical profession, is, according to modern necromancy, the remedy for preventing and curing all the "ills that flesh is heir to."

We shall never be able to exorcise the fiend from the drug shop, until we make the people understand that it does not act at all; but that the living system acts and wars upon it as an enemy to the vital domain. And when this truth is clearly recognized and fully understood by the people, alcoholic medication will be buried so deep in the Sea of Oblivion, that there will be no resurrection for it until civilization recedes to barbarism, and another age of ignorance and superstition overshadows the earth.

DISASTROUS CONSEQUENCES OF FALSE DOCTRINES.

Next to the "respiratory food" *discovery* of Liebig, nothing has ever had a more disastrous influence on medical practice than the first article in the *Westminster Review*, to which I have alluded. That article gave a new impetus, not only to alcoholic drinking, but to alcoholic medication. It led the way to another most pernicious method of medical practice, the oleaginous or hydro-carbonaceous treatment of diseases. Invalids are not only kept semi-intoxicated with alcohol, but stuffed and befouled with fats, greases, gravies, butter, lard,

cod-liver oil, etc. And while the doctors are feeding the people on these miserable effete and excrete matters under the name of "calorificants," the keen-witted quacks have been quick to see commercial advantages in these doctrines, and they are coining money by selling numerous preparations under the taking title of "blood-food."

CALORIFACIENT DIET FOR FATTENING CATTLE.

And the English farmers even carried the doctrine of hydro-carbonaceous or respiratory food so far, as to feed cod-liver oil to their cattle and sheep, in order to fatten them more economically. "Alcohol is respiratory food;" "alcohol saves tissue;" "alcohol yields itself to oxygen, and thus replaces a given amount of food." Such were the doctrines announced to the world by Liebig, endorsed by Pereira, and circulated far and wide by the *Westminster*. The medical profession accepted them without question or qualification. And why should not the farmers apply to their domestic animals the doctrines which the physicians were applying to human beings?

Cod-liver oil is also "respiratory food;" *ergo*, cod-liver oil replaces a given amount of alcohol. It would have been a somewhat ridiculous attempt to fatten animals on alcohol, as we have seen by the experiments on leeches, frogs, turtles, birds, fishes, cats, dogs, horses, rabbits, and guinea-pigs.

What farmer would tolerate a drunken beast on his premises, even a moderately-drinking animal? Would not such a spectacle be disgusting to all fellow-animals, and the example a dangerous one for the morals and manners of every kind of cattle, and all sorts of pigs and poultry? Oh! it is bad enough to have drunken human beings—drunken men, drunken women, drunken children—without having the "brutes that perish" become addicted to habits of intoxication!

And is it not strange that man is the only "animal"—the only living creature in all God's Universe—that will get drunk and not be ashamed of himself for it? It is said of monkeys

and donkies, of hogs and dogs, of apes and baboons, that when by some accident or indiscretion they have become intoxicated, "after the manner of men," they never show any disposition to repeat the experiment. But man, "the higher animal," delights in it. I have heard the story of a hog who, in consequence of partaking of some cherries which had been steeped in rum, became so "tight" that he could not, for an hour or two, maintain the steadiness of gait and dignity of deportment that become a respectable quadruped, and he felt so mean about it that he could never afterwards be driven under a cherry tree!

But cod-liver oil would do the fattening without making the animal drunk; and so the British farmers tried that experiment. The medical profession had taught them that cod-liver oil would increase the adipose matter of their domestic animals; and mistaking obstruction for development, mistaking the retention of effete matter for the production of something useful, they fed their sheep, and cattle, and pigs, on the filthy excrement, until they found by experiment that it produced a rancid condition of the fat, and a hemorrhagic state of the flesh.* And cod-liver oil, butter, lard, grease, fat pork, and fish-oils of various kinds, are extensively prescribed by the medical profession, for the treatment of scrofula, consumption anemia, debility, marasmus, and many other complaints whose prominent symptoms are deficient breath and impure blood. Prof. Hooker, of Yale College, testified, at a National Convention of the American Medical Association, that fat, grease, oil, alcohol, etc., were the preventives as well as the

* Surgeon General Hammond, of the United States Army, in a late work on "Military Hygiene," details certain experiments which he tried on himself, with the view of testing the vexed question, whether alcohol is food. After taking the alcohol for a few days, he found his health disturbed, his weight increased, and his excretions diminished; and he came to the conclusion that alcohol *is* food! The experiments prove exactly the contrary; but the Surgeon General is so blinded by the dogmas of the Schools that he cannot see it.

curatives of consumption, tuberculosis, and kindred maladies ; this statement, as emanating from high authority, was echoed all over the land by the newspapers and magazines, thus knocking dietetic and temperance reforms on the head with the same blow. And this abominable teaching is endorsed by a foreign celebrity—Rokitansky—"the greatest living pathologist," who teaches in his scientific lectures, and in a standard medical text-book, that venous blood and foul secretions are the remedies and the preventives of consumption. And thus medical practice is more than ever before, becoming a promiscuous jumble of gross alimentation and alcoholic intoxication.

"RESPIRATORY FOOD" PRESCRIPTIONS.

Let us see how these erroneous and absurd doctrines work in medical practice. I must give you statistics from the New York Hospitals, but I have no doubt that similar examples are quite familiar to London medical students.

Prof. Parker, of the New York College of Physicians and Surgeons, recently prescribed, in a clinical lecture, for a frail, scrofulous child, cod-liver oil *mixed with brandy*. For a cancerous patient, he recommended *ale*, cod-liver oil, and *brandy*.

Prof. Wood, in a clinical lecture, prescribed for a little boy, very much emaciated, iron, blood-gravy, *wine, porter, ale, and gin*. "The chief indication," said the Professor, "is to make good, pure blood." And as a proper sequel to, or commentary on his prescription, the Professor remarked to the Medical class, "these youngsters will soon get to love it."

Such are the horrid fruits of the absurd theory of calorific diet. Alcohol, animal excretions, and effete accumulations, are grouped together as victuals, drink, and medicine.

Yes, the youngsters will soon get to love it, and become candidates for the poor-house, the penitentiary, or the gallows. Do you not see that the root of this devastating evil is in the keeping of the medical profession? In vain will you organize the Cadets of Temperance, and extend Juvenile Total Abstinence Associations; in vain will you have Leagues, Orders,

and Alliances, throughout the world; and in vain will you hold International Temperance Conventions in this mighty city—this “World of Wonders”—so long as the physicians teach the children to love the alcoholic bane. Thousands of infants are poisoned in their cradles—their pure instincts perverted, their appetites depraved, and their whole organisms debauched for life—by alcoholic medication. Here is laid the sure foundation for millions of cases of vagrant children, disorderly youth, dissipated adults, and criminals of all ages.

One of the most active, zealous, and successful temperance reformers in the United States, who resides in Chicago, Ill., Rolla A. Law, Esq., and who is doing more, probably, than any other individual in our country to enrol the youth of our land under the banner of the pledge, and the “long” and the “strong” pledge, too, tells me that everywhere he finds alcoholic medication the chief obstacle in his pathway; everywhere the medical profession is the stronghold of intemperance. The people are everywhere indoctrinated with the “respiratory-food” and “vital-supporter” fallacies, and the practice of the physicians keeps up the delusion. This gentleman informs me, that for many years he has been convinced of the utter impossibility of any enduring progress in the temperance reform, until it is placed on the physiological or scientific basis; and, to use his own graphic language, he always “pitches into the doctors” when lecturing on temperance. Do you imagine that you can educate your children to “touch not, taste not, handle not,” the alcoholic beverage, while your physicians are fixing in them the maddening appetite for it, by administering alcoholic medicine? Do you imagine that the rising generation will grow up pure, sober, healthful, while their physicians are poisoning them through and through? If the strong man cannot resist the goadings of the morbid appetite, why should we expect it of the feeble child? Prof. B. F. Barker, M. D., of the New York Medical College, said not long since to his medical class, “I have known several ladies to become habitual drunkards, the pri-

mary cause being a taste for stimulants which was acquired by alcoholic drink being administered to them as medicine."

AD CAPTANDUM LOGIC.

Having now disposed of the scientific arguments of medical authors and books, let us glance for a moment at the *ad captandum vulgus* style of logic which abounds in the current medical journals. Says your *Medical Times and Gazette*:

"The fundamental error of the teetotal advocate is, that looking away from matter of fact, and resorting to a feeble, pedantic, *a priori* style of argument, in a matter which ought to be dealt with by demonstration and experiment."

Have we not had "demonstration and experiment" ample and complete? How about the plants, and the leeches, and the frogs, and the reptiles, and the birds, and the fishes, and the cats, dogs, horses, and guinea-pigs? The *Medical Times and Gazette* continues:

"While some persons abstain, and are better, or no worse, the daily experience of most conscientious and abstemious persons proves them to be the better for an habitual allowance of fermented liquor.* Whether it be *food* or *medicine*, eliminated or transformed, whether it ought to do good or not, on reasonable grounds of argument, are questions little to the purpose. It does virtually comfort the stomach, and give quiet to the brain, and enables hard-working and anxious men to work harder and rest better. That it lifts up the sick from the very doors of death, must be palpable to every one who has seen a case of hemorrhage; and that it is greedily

* Fermented liquor! How few seem to understand that fermentation is a rotting process! And medical men talk, and write, and prescribe, as though fermented and distilled liquors were radically different. Alcohol is produced by fermentation, and in no other way. Distillation merely separates it from other ingredients; and the "virtue" or vice, as the case may be, of all distilled and fermented liquor, depends on the quantity of alcohol contained in it, and the other ingredients—drugs, chemicals, and dye-stuffs—mingled with it.

swallowed in immense quantities by patients during exhausting illness, who feel its beneficial effects, is indisputable. With these facts before us, it ill becomes the profession to be coquetting with the teetotalers. We do not want to become slaves to definitions, nor to resort to scholastic subtleties when we deal with matters so important as life and death."

The author ignores theory and goes by experience. Is not the experience of a million of drunkards worth something? What is experience without theory? What are facts without a principle of interpretation? Just what a ship is without rudder or compass. Just what impulse is without reason. Experience may prove anything, and everything, or nothing, according to the rule by which it is interpreted, as we have seen. The physician may *kill nine* out of ten patients, and his experience convinces him that he has *saved one* out of the ten! He may give alcohol in one hundred cases of cholera, pneumonia, diphtheria, or typhoid fever, and one half of the patients recover, and the other half die, and he may reason from his experience, that alcohol has saved fifty patients; and yet the truth may be that alcohol has destroyed, twenty-five of those fifty patients.

A HYDROPHOBIC ILLUSTRATION.

A few years ago, when hydrophobia was very prevalent, the medical journals were discussing the question, whether a case had ever been cured. *Braithwaite's Retrospect* pronounced the prognosis "uniformly fatal." Several writers in the medical journals which came under my notice, declared that we had no well-authenticated record of a case ever having been successfully treated with medicine. A physician in the New York Hospital reported a case in which the use of ice was very beneficial. It was beneficial because it enabled the patient to swallow, so that the physician could get some brandy into his stomach! This was the great advantage, according to the Doctor's "experience." The patient died; but the ice was excellent because it enabled the patient to swallow brandy!

Still the newspapers were full of infallible specifics, and among other nostrums which were about that time published in the papers as a "sure cure in all cases," was that of M. Levachoff, a Russian, who had cured seventeen hundred and ninety one cases, without a single failure. The cure consisted in abstaining from tobacco, alcohol, animal food, condiments, and all things which had a tendency to inflame the blood, and the administration of a pill whose composition was of course a secret. M. Levachoff cured dogs and other animals as well as men. And the case of a remarkable dog, or rather the remarkable case of a dog, is related. I quote from the *New York Tribune*:

"A mad dog that had bitten several other dogs, was shut up with his victims in a barn; M. Levachoff went in among them, only armed with a pair of tongs, holding out the pill. The dog was the first to approach, foaming with rage, but no sooner was the pill presented to it, than it swallowed it at once, moved by an instinct of self-preservation which even madness had been unable to destroy."

Such is the story as originally published in the *Morskoï Shornik*, under the direction of a Scientific Committee of Marine at St. Petersburg! And now whether the dog snapped at the end of the tongs because it appreciated the pill, or because it felt itself insulted—whether the dog swallowed the pill by accident or design—and whether the benefit of the plan of treatment introduced by M. Levachoff is to be ascribed to the nostrum, or to abstinence from alcoholic and other stimulants, are questions admitting, perhaps, of some discussion.

THE MUDDLE OF ALCOHOLIC LOGIC.

How hard it is for an educated person to let go a theory with which he was born, as I may say, and into which he has been literally baptized. From a text-book of Chemistry, by John Darby, A. M., Professor of Chemistry and Natural Science in East Alabama College, published in 1861, by John M. Cooper & Co., Savannah, Georgia, and A. S. Barnes & Burr, New York,—the latest work on Chemistry which I have

seen—there is the following comminglement of sense and nonsense, on the relation of alcohol to the living organism. (Page 312.)

“Its various combinations, forming the multitude of alcoholic drinks, give it an importance to the human race, that can be claimed by no other besides bread and meat. If its importance in this relation, like them, was for good, it would be well. But of all the “ills that flesh is heir to,” there are none that can equal those inflicted by alcohol. The suffering and ruin that have been caused by it, are perfectly beyond calculation. Its *excessive* use, in any of its multitudinous forms, turns man into a brute, takes from his heart every human sympathy, and plants in their place the worst passions of our nature. Under its influence he can trample on every interest of a once-loved family. He can murder the wife of his bosom. He can be deaf to the entreaties of his own offspring, and, brutalized by the burning curse, send the pleading child to eternity by his murderous hand.

Ruin is the legitimate result of its continued and *excessive* use. Nevertheless, we have no doubt it can be used, and *rightly* used. One of the great uses of food is to afford heat, and when ordinary food is taken, it must be digested before it can furnish heat. Now, when the digestive powers are enfeebled by sickness or old age, alcohol, in some of its forms of wine, beer, or brandy, may in this respect supply the place of food in *yielding* heat, as alcohol does *not undergo digestion*. It *burns* at once, or it makes direct impression on the nerves. It *affords heat with no effort on the part of the vital powers*, which ordinary food will not do. In this respect alcoholic liquors might be used beneficially; and for which they were *intended by their Creator*; and *such* use is sanctioned by the *Bible*.”

Such is a fair specimen of alcoholic ratiocination as we find it in the medical journals, in the standard authors, in the medical text-books, in the newspapers, and in quack advertisements. Such reasoning would not be tolerated on any other subject; but nothing seems too absurd, inconsistent or contradictory, for learned men to say relating to alcohol.

PHARMACEUTICAL EMPLOYMENT OF ALCOHOL.

The employment of alcohol in pharmacy, aside from its own supposed medical virtues, is a source of extensive mischief, and is doing much to cultivate the appetite for intoxicating drink. It is employed as a menstruum or vehicle for more than one hundred and fifty officinal preparations of the pharmacopœias; and is in fact, more extensively employed at this time, both as a menstruum and as a leading remedy, than ever before.

INDICATIONS AND CONTRA-INDICATIONS.

Alcohol is now becoming a leading medicine in the treatment of many febrile and inflammatory diseases, for which it has long been regarded as contra-indicated; for examples, in the eruptive fevers, as measles, erysipelas, and in small-pox, in pneumonia, diphtheria, etc. A few years ago, the idea of stimulation in these and similar diseases, would have been regarded as unpardonable heresy on the part of the physician, if not sure death on the part of the patient; but under the auspices of the calorifacient-diet dogma, it is becoming the prevailing treatment. And if it should prove less fatal than the antiphlogistic drugs and bleeding processes for which it has been substituted, this fact would not prove that alcohol is good, but that the other things are worse.

PROFESSOR CLARK'S EXPERIENCE.

Prof. Alonzo Clark, of the New York College of Physicians and Surgeons, stated in a lecture to his medical class three years ago, that brandy had been the means of saving the lives of many typhus-fever patients, and that without it they surely would have died. After his lecture one of my students asked him if he had ever treated his patients any other way? He said, "No." He then asked the Professor if he had ever known any fever patients treated without stimulants by others? He replied that he never had; but he *knew* they would die if they did not have the brandy!

There's experience for you! *All* of his patients take brandy. Some die, and the rest recover; *ergo*, all who recover are saved by the brandy! The logic would work just as well the other way—all who die are *killed* by the brandy.

For a dozen years I have been trying to get a discussion on the subject of alcoholic medication in the medical journals, but thus far I have not succeeded. Medical journals appear to ignore it as in some sense "contraband." They seem to shun it as they would an explosive magazine. They seem to fear it as they would a masked battery. They seem, indeed, to regard it as in some way revolutionary.

A few years ago, I wrote a small book, "The Alcoholic Controversy," in reply to the Westminster *Review's* "Physiological Errors of Teetotalism," which work I took particular pains to send to the medical journals, but none of them took any notice of it.

DR GILMAN ON ALCOHOLIC STIMULUS.

A few years since, a Dr. Gilman of New Hampshire, published an article in the Boston *Medical and Surgical Journal*, in which he took the ground that the medical profession had always been mistaken in supposing that alcohol in any manner sustained the powers of life; and he showed conclusively that the supposed "supporting" action of alcohol was nothing more nor less than a fever induced by the poison, which, so far from sustaining the patient, only prostrated him the more.* This article was replied to. Dr. Gilman rejoined, and demolished his opponent most effectually. His opponent surrejoined, but not being able to meet Dr. Gilman's argument, he in-

*As an indication of the retrograde tendency of modern medical science, Prof. Chapman, of the Long Island Medical College, has recently published an article in the American *Medical Times*, on the nature and treatment of diphtheria, etc. He theorizes to the conclusion that alcohol is both a remedy and an antidote, a curative and a preventive, and that it should not only be administered to patients who have the diphtheria, but to well persons to prevent them from having it!

timated that Dr. Gilman's views savored strongly of heresy if not of outright empiricism, gently admonishing him at the same time, that if he did not stop writing such revolutionary sentiments, he would have to take a place very soon among the anathematized of the profession. The short Saxon of the matter was, that if Dr. Gilman wrote anything, whether true or false, which tended to damage the drug trade, or lessen or discredit the established business of the profession, he would be cried down as a quack. And thus ended the discussion, the *Journal* refusing to allow any further controversy in its columns on so dangerous and delicate a question! But there is one point—the main one too taken by Dr. Gilman's opponent—which is significant, to say the least. He asked, "If Dr. Gilman can sustain his proposition that alcohol, instead of imparting strength to the system, only calls out and wastes some portion of the inherent vitality, might not the same objection be made to other stimulants, and might not the same principle be applied to all medicines?"

And thus it is distinctly admitted that the great, grand objection to dispensing with alcohol as a medicine, is because, if alcohol is thrown overboard, other drugs might be sent after it.

PROFESSOR HOLMES ON DRUGGERY.

Well, there is something significant of progress—which is refreshing in these days of a retrograding healing art—in the right direction in an address delivered not long since before the Massachusetts Medical Society, by Professor Oliver Wendell Holmes, the celebrated anatomist and poet. "Man-kind," said the Doctor, "have been literally drugged to death; and the world would be infinitely better off, if the whole apothecary shop, with some slight exceptions, were emptied into the sea, though I should pity the fishes."

The poet must be a progressive anatomist, or the anatomist a progressive poet, and here is a specimen of his poetry:

"God gave his creature light, air,
And waters open to the skies,
Man locks him to a stifling lair,
And wonders why his brother dies."

It is due to the Massachusetts Medical Society, to say that it refused to endorse the sentiments of Professor Holmes' address.

THE MEDICAL PROFESSION AND SOCIETY.

The principles I have all along endeavored to establish may be radical; they may be revolutionary. Indeed, they are so. But truth is always ultra, always radical. True science can speak but one language. Nature can never compromise; and if we can revolutionize old and time-honored errors out of existence, who is there to object? The medical profession? Does society exist for the benefit of the profession, or does the profession exist for the benefit of society? Must people be kept sick, that doctors may have a profitable calling? Or should we aim to establish correct practices and health conditions in the world, and so be enabled to dispense with physicians entirely?

CONCLUSION.

There are many other problems growing out of the premises I have advanced, which I would like to explain, or at least to mention; but I cannot longer detain you. In conclusion, if the propositions I have laid down are true, are they not great and important truths? Are they not essential? Is not their recognition indispensable to the success of our cause? *I know they are true.* It has been the work of my life to ascertain and demonstrate their truthfulness. No other medical man, so far as I know, has ever attempted to investigate the *primary premises* of medical science. No other person, so far as I have ever heard or read, has ever traced the principles of the healing art to their proper foundation in the very constitution of organic life—to their legitimate basis in the LAWS OF NATURE. And I call upon men of science generally, and I call upon medical philosophers particularly, to meet the issues I have presented. If I am in error, they can show it. If they are in error, they should be willing to know it. If there is a better way, they should rejoice to find it. It is their solemn duty to decide this matter, *yea or nay.* True science de-

mands it. The true healing art requires it. Crushed and bleeding humanity claims it. Sick and suffering multitudes urge it. Degraded and dying millions appeal for it. Orphans' groans and widows' tears entreat it. Wailing men and weeping wives implore it. Half a million of grog-shops, and many millions of tiplers need it. God's image, marred and scarred, deformed and debased, calls for it. Human progress depends on it.

Not only the temperance reform, but all of the reforms among men are involved in the issue which I present; and this issue is exceedingly simple. It is plain yes or no. One of two things is true: Dead matter does or does not act on living matter. Scientific men have always taught the affirmative. I say *no*; and if I am right, all of the medical doctrines on which the use of alcohol, either as a beverage or a medicine, can be predicated, are disproved. Is not this subject worth investigating? Should it not be thoroughly understood, and its truth absolutely demonstrated by every temperance man? I am willing to go to the ends of the earth, and to submit to any possible inconvenience and expense, to be convinced of my error, if I *am* in error. But, resting in the deep conviction and most abiding faith that I am right, I am willing to answer objections and reply to criticisms from any source. I would gladly go before the Royal College of Physicians and Surgeons of London, than whom a more reputable body of learned men does not exist, and there more fully explain the points I have here but briefly indicated. I would rejoice in an opportunity to present and defend the views I have advanced here, before that body of men, which has claimed to be, and with good reason for aught I know to the contrary, the most learned association of men on the earth—the Academy of Medicine of Paris.

I would have the medical profession adopt these truths, and become true teachers, and exemplars, and reformers, and not longer be the "blind leaders of the blind." I would have them teach the world the doctrine of physiological salvation, that health is only to be found in obedience to physio

logical law ; that there is no law of cure in all the universe, except the condition of obedience ; that disease is not a *devil to be cast out*, but the *vis medicatrix* which *defends and restores*. I would have them teach the world that there is no virtue, and no action in alcohol, nor in poisons of any kind, nor in any thing outside of the vital organism ; but that all virtue, and all action, is inherent in the living system. If I can hope to succeed in causing such an investigation, as shall eventually put the medical profession right on this subject, I shall return home with that consolation, which in the dying hour, is worth more than all the treasures of earth—the happy reflection that the world will be the better because I have lived in it. And should it be my fate, or my fortune, to be wrecked on my return trip to New York, and to be buried deep beneath the ocean waves, as the howling winds chant a requiem over the turbulent waters, I believe, that in my last moment of consciousness, I shall ascribe praise and thanksgiving to “Him who doeth all things well,” that He had permitted me the great privilege of attending the WORLD’S TEMPERANCE CONVENTION.

ALCOHOLISMUS.

In further illustration of the doctrines advocated in the foregoing pages, I cannot do better, perhaps, than to subjoin the following article from a late number of the *Boston Medical and Surgical Journal*, being a paper read before the Boston Society of Medical Observation, by GEO. C. SHATTUCK, M. D.

The word Alcoholismus having been introduced into nosology, and there being a question as to what cases it is applicable, it is proposed at this time to analyze the histories of three patients whose symptoms were mainly referable to the poison known as alcohol.

A large, fat man, forty-seven years of age, came under treatment (in the Massachusetts General Hospital) in the month of December. His friends described him as a high liver, and said that for the last twelve or fifteen years he had indulged freely in vinous and alcoholic drinks. He had spent twelve years in the East Indies; had good uniform health there, and during three subsequent years, spent in this city, when he took but little exercise, indulged freely in eating, drinking, and smoking, but still called himself a well man, and was not regarded as an invalid by his friends, till within the last five months, when weakness and loss of appetite were prominent symptoms. Five days before coming to the Hospital, he noticed his legs and belly as swollen, and on that account consulted a physician for the first time, and went to the apothecary to get the prescription. He was so helpless, nervous, and querulous, that his friends sent him to the Hospital. He was found with a light complexion, a countenance

pale and troubled, so weak that he needed assistance to get out of bed, general anarsarca, marked ascites, dullness and deficient respiration over lower backs, but with no cardiac symptoms, except a feeble impulse; the pulse regular, though weak, anorexia, the tongue moist and flabby, with a white coat. The urine scanty, high colored; bile and albumen were found in it, but no casts. Diuretics and stimuli were administered as he could take them, but his unfavorable symptoms continued. He lost strength rapidly, was dull, indisposed to exertion, and did not complain of pain. The abdomen was so distended as not to admit of a satisfactory exploration of the hepatic region. The bowels were kept open, the discharges loose, not remarkable in color, and involuntary during the last two days. Somnolence and increasing weakness were then the prominent symptoms. His respiration was embarrassed, and he died, unexpectedly, thirteen days after coming to the Hospital, and eighteen days after first seeking medical advice.

At the autopsy, by Dr. Ellis, the lungs were noted as healthy; the lining membrane of the heart stained by contents. Just within the edge of the annulus ovalis was a direct opening, one fourth of an inch in diameter. The substance of the heart soft and of a pale lemon color. On microscopic examination, the striæ were generally invisible, and, when seen, were very faint. The fibers contained much granular matter. Peritoneum contained eighteen pints of serum. Liver weighed more than eight pounds, everywhere streaked with granulations of a bright yellow color, and varying in size from one to three lines. Tissue quite dense, resisting the knife more than usual. Microscope showed it to be very fatty. Spleen large; weight, fourteen and a half ounces. Kidneys both quite large; weight of right, thirteen ounces; that of left, eleven ounces and a half; cortical substance thick and of loose texture. Microscope showed the tubuli to be composed in great measure of granular matter and minute globules. Mucous membrane of stomach somewhat grey. Other organs normal.

This man had undoubtedly overtaken his kidneys and liver by taking too much food; still the hydro-carbonaceous material had been converted into fat and stored away. We must believe alcohol to have been the main agent in causing his disease. We find fatty degeneration of the heart, and death resulted immediately from the failure of this organ to discharge its duties. We may note that a feeble impulse and pulse were the only cardiac symptoms. There was no murmur, notwithstanding the communication between the two hearts. The size of the heart was not modified. To what shall we attribute the somnolence; to uræmia or cholestæmia? There was grave structural disease of both liver and kidneys; neither of these organs could have properly discharged its duties of excretion, nor could the liver have performed its part in assimilation. No disease of the stomach, and anorexia such a prominent symptom, and that organ a recipient of so much alcohol! We must note, also, the patient's not complaining of pain, and not being aware of being a sick man till within three weeks of his death, whilst the diseased processes must have been going on for years.

Another case is that of a widow, a laundress, forty-six years of age, who had borne seven living and two dead children, but had not had much sickness, and considered herself well, till within five months of entering the hospital, when she noticed anasarca, and, soon after, ascites. She admitted that appetite and strength had been failing for two years or more, and that she had been addicted to the free use of alcoholic stimuli for many years. She was in bed when first seen, which she kept, getting up only to have it made. She was decidedly fat, her countenance pale and puffy; decubitus on left side preferred; the tongue but little coated, moist; the appetite very small; digestion difficult; the abdomen much distended, fluctuating; the pulse ninety, regular, its stroke and that of the heart feeble. Nothing remarkable on exploration of the chest. She had been imbibing spirituous drinks freely just before entrance. The urine was of a brown color, acid; specific gravity, 1.012. No abnormal ingredients dis-

covered on chemical examination; a few tube casts and epithelium under the microscope.

The bowels were kept quite free by laxative medicine; she took the tincture of the muriate of iron, gallic acid and tannic acid in succession, as she was able to bear them; but the stomach was easily disturbed, and she had occasional attacks of bilious vomiting. She had pain in the lumbar region, and two or three times of great severity. The appetite and capacity for food small; a little bread, or gruel, or broth, constituted her nourishment. The abdomen became so much distended, and she was so uncomfortable, that she was tapped after being in the Hospital five weeks, and a pailful of yellow, viscid fluid removed. A soft, movable tumor, of about the size of a hen's egg, was found just below the angle of the right ribs on exploration, which may have been the gall-bladder, the liver being felt in the epigastric and left hypocondriac region. She was more comfortable, slept better, and took more food; the relish and digestion much improved. At the end of four days she was again running down; weakness, loss of appetite, somnolence, were the principal symptoms. She died one week after being tapped, and six weeks after entering the Hospital, very easily, and when for twelve hours the respiration and circulation were gradually failing. No autopsy was allowed.

Now what shall we say this woman died of? Is there much, is there any doubt of fatty degeneration, extending to the heart, liver and kidneys? If, with Dr. Austin Flint, Jr., we regard cholesterine as the excretory product of the liver, did she die from cholesteræmia? Was there not also uræmia? No albumen was discovered in the urine, but neither the chemical nor the microscopical examination was repeated often enough to make one sure of the condition of the kidneys. Two or three examinations were made, and no albumen discovered. The three organs, the heart, the liver and the kidneys being the seat of decided structural lesions, we cannot be surprised that dropsy was a prominent symptom. The dropsy did not kill her, although it contributed to a fatal re-

sult. If we say that she died of chronic alcoholismus, do we not designate the principal point in etiology, and is not this one of those cases where it is best to give the name of the disease from the cause?

A pale, thin man, twenty-nine years of age, a waiter in a hotel, was under observation in January last for fifteen days. He had had diminished appetite, difficult digestion and occasional vomiting for several years, during which time he had taken alcoholic drinks frequently, at short intervals during the day, and had smoked freely. He had never had delirium tremens, never got drunk. He had done no work for ten weeks, and kept his bed for ten days. He had no headache, but was weak; pains and soreness of trunk and limbs, and occasionally sharp pain in epigastric region. Had vomited a sour liquid frequently for two days; anorexia; palpitation; dyspnoea; constipation; occasional fluttering in cardiac region. Pulse ninety, quick, small, and regular. Nothing remarkable on exploration of thorax and abdomen. Urates in large amount at entrance, but the renal secretion not otherwise remarkable. Bowels kept free by medicine; dejections not remarkable.

Under a regulated diet and the administration of laxatives and tonics, the nausea, vomiting, constipation and anorexia disappeared; he gained strength, but still had occasional pain and indigestion, and was weak when he left the Hospital. We might call this man's disease dyspepsia, but the free use of alcohol and tobacco were the only causes to which his symptoms could be attributed. The alcohol, apparently, was not determined to the brain. Were not the liver and kidneys suffering? Had fatty degeneration commenced in the heart? Should we not call this a case of alcoholismus, perhaps of nicotismus?

We still have much to learn of the effect of these poisons on the economy. We had no evidence in this case of structural changes in the liver and kidneys, but both were imperfectly performing their functions; and although we had no satisfactory evidence of the failure of the liver to excrete, we should accuse it of not performing its office in assimilation.

These cases, which have thus been analyzed from histories with many details, are not very satisfactory as to diagnosis, prognosis, or treatment, but questions are raised by them which are frequently presented, and to which we have not as yet, satisfactory answers.

The recent researches of Ludger, Lallemand, Maurice Perin, and J. L. P. Duroy, have thrown much light on the effect of alcohol on the economy. Liebig's idea of its being decomposed and its hydrogen set free, seems no longer tenable. The alcohol itself is in the blood, comes into contact with nervous tissue and with secretory and excretory cells, and subserves nutrition only as it stimulates nervous action. How it favors fatty formation or degeneration we do not as yet know, but we cannot deny the fact. The most recent researches confirm long established ideas of mischief done to the liver, alcohol itself being found in the gland. Its presence in the urine is established, and disease of the kidneys in those addicted to alcoholic drinks, whose kidneys are called upon largely for eliminative action, is to be expected. We need more careful study of symptoms and lesions in those addicted to alcoholic drinks, where the poison is not especially determined to the nervous centers. Drunkenness and delirium tremens are comparatively well known. And is not a great deal to be learned from the free use of alcohol as a therapeutic agent in phthisis? Unfortunately, we have ample opportunities of studying this subject, and all interested in the practice of medicine must welcome all anatomical and physiological results which throw light on affections often complicated and obscure.

REMARKS BY DR. TRALL.

I commend the above article to the careful consideration of those medical gentlemen of the International Temperance Convention, who read learned essays on the effects of alcohol,

and who could not get along without alcoholic medicines unless they were in the immediate vicinity of a drug-shop, where substitutes could be had. One physician read a long argument, aiming to prove that alcohol could not be useful as a medicine *because it did not stimulate the nervous system!* He seemed to entertain no manner of doubt, indeed, he took it for granted, that alcohol would be a good medicine if it *did* stimulate the nervous system. The key which I have given him, will, I hope, enable him to understand that alcohol is objectionable, because of contact with the living organism, and not because it does or does not stimulate any particular organ or tissue. Its *presence* is all that is necessary for it to *occasion* injurious effects.

END OF PART FIRST.

APPENDIX.

ALCOHOLIC MEDICATION:

BEING A

DISCUSSION BETWEEN DRS. TRALL AND HURD,

THROUGH THE PHILANTHROPIST,

PUBLISHED AT FREDERICTON, NEW BRUNSWICK.

APPENDIX.

ALCOHOLIC MEDICATION.

From the Philanthropist of Oct. 23, 1862.

THE World's Temperance Convention, recently held in London, must have been a grand affair, judging from the published accounts of the proceedings, by which we learn that over one hundred papers were read, and many of them discussed. Thrilling speeches were delivered fresh from the hearts of earnest and tried friends of the cause. The Convention was divided into three sections, to which the respective papers were referred.

1. Political and Legislative. 2. Educational and Religious. 3. Sanitary and Medical.

Owing to special efforts which are now being put forth by the people of Great Britain to get an Act through Parliament, permitting them to regulate or prohibit the traffic in ardent spirits, wherever they desire to do so, the first section seemed most interesting to the majority, and much time was doubtless profitably spent upon it. But the medical section, on account of the difficulty which was found in dealing with it, perhaps was not so freely discussed as either of the other two. The medical representatives present, were divided into two classes. 1. Those who believe alcohol useful as a medicine, but not necessary. 2. Those who regard it as neither necessary nor useful. Dr. R. T. TRALL, of New York, the only representative from the United States, took the latter side, and as I am quite sure that his speech will not fail to interest and benefit your readers, I propose to present them with the following synopsis of it, taken from an article written by himself, while in London, to the Journal of the American Temperance Union. Being called upon, Dr. TRALL arose and said:

“MR. PRESIDENT, LADIES, AND GENTLEMEN: I have listened with great pleasure and deep interest to many of the papers which have been read here; but the most important practical truth which has yet been uttered in this place, is, to my mind, that of the President now in the Chair (Dr. M'Culloch, of Dumfries) on the opening of the Medical Section of the World's Temperance Convention. He said, ‘The last fortress which the temperance army will have to storm, and the last stronghold which the enemy will yield, will be the medical question—the use of alcohol as a medicine.’

Sir, this is most true; but if we would direct our energies and our missiles at this stronghold at once—demolish it now—our work would soon be done, and the success of our cause achieved. You can never suppress alcoholic beverages, until you stop alcoholic medication.

To whom do the people look for instruction? Where must they go for guidance and direction, except to the medical profession? And if the professors of science, and authors of our text-books on chemistry, physiology, and medicine mislead the people, how can they help themselves? Alcoholic medication is now on the increase all over the United States, and the inevitable consequence is, intoxicating beverages follow in its wake.

The temperance people have by common consent the moral, the political, the social, and the economical arguments; and our veteran friend, Dr. Lees, has just proved, in his most admirable paper, that the Bible is a teetotal book from the beginning of Genesis to the end of Revelation. But we lack the scientific argument. This is in the hands of our opponents, not of right, but of usurpation. I propose to wrest this weapon from the hands of our adversaries and turn it against them. Jefferson said of American Slavery, 'We have got the wolf by the ears; we can neither hold on, nor let go.' The temperance people have got the alcoholic wolf by the ears. They cannot hold on as a beverage, and they cannot let go as a medicine. The remedy I propose is very simple. It is to cut off the wolf's tail just behind his ears! How! That is what I came across the ocean to tell you.

Now the doctrines and theories of medical men, and of chemists, and of physiologists, and of the therapeutists, on which the use of alcohol as a preventive, or curative of disease, is predicated, *are false!* They are all contrary to the teachings of nature. However specious and plausible they may appear in the ambiguous technicality of medical books, they are in opposition to nature and common sense, and simply absurd.

Messrs. Lallemand, Perrin, and Dufor, have demonstrated that alcohol passes through the system unchanged, being eliminated as alcohol by the skin, kidneys, and lungs. Of course, this settles the question that it is indigestible; that it imparts nothing; that it is non-usable, and that it cannot be either an alimentary principle nor a heat-forming material; and these gentlemen have received a premium of 25,000 francs for a work on alcohol and anesthetic agents. But they confess they cannot explain the *modus operandi* of alcohol. They say, 'The action of alcohol on the human body has yet to be shown.'

Here is the great mystery—the action of alcohol. I propose to solve this mystery before I sit down. Pereira calls alcohol a 'caustic and irritant poison,' but he cannot explain its action, and he calls it a 'stomach restorative,' but he cannot tell how. He says it is employed to 'support the vital powers,' but he does not tell us why. Alcohol has been employed in medicine far more extensively than any other drug, and is the *menstruum* for more than one hundred and fifty prescriptions of the pharmacopœia, yet medical men confess to a profound ignorance of its *modus operandi*. For three thousand years this problem has baffled the investigations of medical men, and for the reason that they have always looked in the wrong direction for a solution. They have always been seeking an explanation in the actions of dead matter. They should seek it in the laws of vitality.

And for this reason it is that medical men have not yet discovered the essential nature of any disease, nor the rationale of the action of any

medicine. And they never will till their investigations are directed in a very different channel.

All these problems are as plain as sunshine, in the light of correct premises. From the stand-point of the laws of nature, as manifested through the vital organism, they become self-evident truths. Where is the mistake? It lies at the starting-point of life. It is in a misapprehension of the relations of living and dead matter. And to present this subject intelligibly to you, I must go back to first premises.

Medical books and schools teach that diseases 'attack us,' 'run a course,' 'pass through us,' become 'seated' in us, &c., &c.; that they are entities or forces at war with the *vis medicatrix naturee*. Nature teaches the contrary. She teaches that disease is a remedial effort, a process of purification, or of reparation. In fact, this mysterious thing called disease, and this mysterious remedial process, *vis medicatrix naturee*, are the same, one and identical. A fever is the simplest form of disease, and a type of all diseases. What is a fever? Medical books can neither explain it, nor satisfactorily define it. They know its form and features—its phenomena—but its essential nature is confessedly a mystery. I think the mystery is easily solved. A fever is an effort to expel impurities from the system. If you take alcohol, you are feverish. Why? Because alcohol stimulates you. But what is stimulation? Not the action of an inorganic substance on the living system, but the action of the living system, to get rid of something injurious. Hence a stimulant does not impart vitality to, but abstracts vital power from, the system. There is a world of delusion here. After a person has had a course of fever—a process of purification—he is pale, weak, emaciated, fatigued. He needs, what? Alcohol? Stimulation? No, *rest, rest*. The stimulus only provokes another fever, and protracts convalescence, occasions a still greater waste of vital power, and lessens the chance of final recovery. I have tried this question both ways. For ten years I gave alcoholic stimulants in low fevers, and after the crisis, to 'keep the patient up.' I lost the usual proportion, and I am now fully persuaded that the stimulus only helped them to *go down*. During the last fifteen years I have treated hundreds of cases of fevers of all kinds, and I have not given a particle of stimulus of any kind, and I have not lost one patient.

The late Prince Albert was 'kept up,' as the story came to us across the waters, for six days 'on stimuli.' But where was he on the seventh? I have no shadow of doubt that if he had taken no alcoholic stimulus, he would not then have died. And I am willing and prepared to go before the Royal College of Physicians and Surgeons, and all the scientific men of London, and *prove* the proposition I advance, if they will give me the opportunity. The official report of his medical attendants was, that on Monday he had a 'feverish cold;' on Tuesday, Wednesday, and Thursday there were no alarming symptoms; on Friday he was worse; on Saturday he died. The death was certified to be of 'typhoid fever.' People do not die so easily of mild cases of typhoid fever, nor of 'feverish colds,' nor of 'gastric fever,' as his case was reported in some of the newspapers.

The London *Lancet* says, in allusion to the sudden and unexpected turn of his case, 'Even the least sanguine had no anticipations of the slowly, but surely increasing debility, resisting all efforts to stay its advance, under which the Prince gradually sunk.' What were those efforts to stay the increasing debility? Alcoholic stimulants. In my

opinion, it was the stimulants which occasioned the fatal debility. When you understand what a fever is, you will not fear it. You will fear rather not to have it when the causes exist. And when you understand that fever and stimulation are one and the same thing, you will never willingly take alcohol in any form, either to prevent a fever or cure it, or to restore you after you have had a fever.

But how does alcohol act? I assert that it does not act at all. Do not, I beg of you, imagine that because I deny that alcohol has any action, my subject has nothing in it. I assure you there is everything in it, so far as the scientific argument is concerned. Medical men have in all ages mistaken the relations of living and dead matter, and all their problems respecting the nature of disease and the action of remedies, are founded on a fundamental error on a reversed order of nature.

Medical books and schools teach that medicines act on the living system in virtue of certain inherent, special, elective, or selective affinities, which each has and excites for some part, organ, or structure. The truth is exactly the contrary. Dead matter does not act on living matter, but living acts on dead matter. Alcohol is said to have a special affinity for the brain. The opposite idea is true. The living system has an organic and vital repugnance to it. The relation of alcohol and all living tissues is that of antagonism, not affinity. There is no more affinity between alcohol and the brain than there is between life and death, or between two lovers who hate each other with a perfect hatred.

This false doctrine, that alcohol acts on the vital organism—that dead matter acts on living—is the parent source of all that is erroneous in medical science, and pernicious in medical practice. It is the fountain-head of all dissipation and debauchery in the world. Erase this false doctrine from medical books, and you will have the whole army of medical men—half a million strong—on the side of temperance. Dispossess the minds of medical men of this error, and you will do more for this glorious cause in five years, than I fear you will do in five hundred while they entertain it. Give us the simple declaration of scientific truth on this subject, endorsed by the medical profession as a body, and the temperance reform will soon achieve itself. I repeat, I ask nothing for the speedy extermination of the rum fiend from the face of the earth, and the complete triumph of teetotalism, but the declaration of truth, of the relations of living and dead matter, emanating from the medical profession. This is a matter which concerns life and death, health and disease, victuals, drink, and medicine; and hence their teachings and influence are all powerful.

When living and dead matter come in contact, what happens? Actions result, effects occur. But how? And why? The living thing recognizes the dead thing to be useful or injurious. If it is usable it is useful, and belongs to the category of food; and it will be appropriated to the formation of the bodily structures. If it is not usable it is a poison, and will be expelled in every manner, and in any channel by which the system can best get rid of it. Here is the doctrine of use and abuse. Alcohol is non-usable and hence only *abusable*. And so far from 'supporting vitality,' by its action on the system, the system is obliged to expend and waste a portion of its inherent stock, or vitality, in repelling it from the organic domain.

The rationale of the simple process of sneezing, gives us the key to the solution of all the problems involved in this discussion. Why, and how do you sneeze? When your streets are dry (if they ever are dry)

and an unusual quantity of dust is blown into your nose, what happens? Sneezing. But what is sneezing? Does the dust act on the nose (this is the doctrine of medical men), or does the nose act on the dust, as nature teaches?

Some months ago I read in the papers of a boa constrictor, on exhibition in one of the Paris theatres, swallowing a bed blanket. The voracious reptile was two or three days in getting the article into his stomach. But after retaining it some four weeks, and finding no progress made in the work of digesting it, the animal, after a struggle of two or three days, succeeded in ejecting it. Did the bed blanket act on the serpent? Or did the serpent act on the bed blanket?

'The action of alcohol has yet to be shown,' say Messrs. Lallemand, Perrin, and Dufor. 'That medicines *do act*,' say all the learned *Materia Medica*s, 'we know, but exactly *how they act* is entirely unknown.' I dispute both propositions. They do not act at all. Why should alcohol act in the human stomach any more than it acts in the demijohn, or the apothecary's shop? Does change of place change its nature?

What would you think of the astronomer who should undertake to calculate the problems of his science on the primary premise that the sun revolves around the earth once in twenty-four hours? Would you not expect that he would make bad work in calculating the tides, predicting the eclipses, managing the comets, and explaining the revolutions of the planets? Yet such was once the opinion of astronomers, and appearances proved it. They had the experience of all preceding ages, and the evidence of their own senses in favor of the theory; could they not see with their own eyes that the sun arose in the east every fair morning, and set in the west each succeeding evening? And could they not feel with their own feet that the earth, in relation to the sun, stood still? The logic was good; but the premise was wrong. They had mistaken an optical illusion for a law of nature. But when they came to apply the law of gravitation to the phenomena, they soon discovered that 'appearances are sometimes deceitful.'

Medical philosophers are now in a predicament similar to that of the ancient astronomers. They have not recognized the controlling law of vitality. They have undertaken to explain the problems of life on chemical and mechanical principles. They might as well undertake to demonstrate the principles of music by the laws of conic sections. They have brought living and dead matter into contact, and placed the action on the wrong side. They have committed the unparalleled blunder of making dead, inert, inorganic matter active, and living, vitalized matter, passive, in their relation to each other, and thus they have subverted the whole order of nature, and filled the world with innumerable falsities. The root of this Upas of intemperance, I repeat, is alcoholic medication. This is the Africa into which we must carry the war. It is there that the final battle must and will be fought, whether we come off victors or are vanquished."

Such, Mr. Editor, are the views of Dr. TRALL as embodied in his paper read at the World's Temperance Convention, and repeated in his speech before a London audience. I commend them to the careful consideration of your readers, without, however, endorsing his novel theory as a whole, notwithstanding the shrewdness and ability which he has displayed in his argument. With your permission I will, in a future number of your paper, show wherein I consider his position entirely untenable.

J. C. HURD.

ALCOHOLIC MEDICATION.

From the Philanthropist of Oct. 30, 1862.

IN the speech of Dr. R. T. Trall, of New York, communicated in our last, by our friend Dr. J. C. Hurd, the former asserts and advocates the position, that "alcoholic *medicine* is neither *necessary* nor *useful*," and from this the latter dissents, and promises, in a future number, to show wherein he considers Dr. Trall's position untenable. We confess to some surprise at this announcement of Dr. Hurd's, and also to no little curiosity as to the arguments by which he will justify it. The arguments of Dr. Trall are not simply elaborate, but logical and forcible in the extreme, and we have some apprehension that in endeavoring to refute them, Dr. Hurd will only succeed in arguing himself over to the *other side*. But as we are yet in the dark as to Dr. Hurd's mode of reasoning, we will be content at present with an endeavor to strengthen the position of Dr. Trall. It has long appeared plain to us that the very nature of alcohol, as exemplified in its effects when introduced into the bodies of animals, was sufficient, without further testimony, to prove its utter want of adaptation to the purposes of the medical faculty. That Dr. Trall is not by any means alone in his opinions, will be plain to any reader of the following sentiments of eminent medical authorities: John Higginbottom, Esq., M. R. C. S., of Nottingham, says, "I have for the last seven years (this was in 1834) most conscientiously banished intoxicating drinks from my practice as a medicine, and I have never seen patients injured in their health by the loss of them." If this be so, how can they be either necessary or useful? Thomas Beaumont, Esq., M. R. C. S., President of the Bradford Medical Association, gives it as his opinion, formed upon long and extensive practice, "that there are few diseases, if any, which cannot be successfully treated without the aid of alcoholic drinks." Still more to the point is the testimony of John Fothergill, Esq., M. R. C. S., of Darlington, England. "Of all the articles of popular *Materia Medica*, there are none so frequently used, so seldom required, or so *dangerous to administer*, as ardent spirits, wine, or malt liquors; and their *total rejection* would be the means of preventing the ruin of many constitutions, and the loss of innumerable lives, which are now sacrificed, directly or indirectly, to their injudicious employment." And again he says, "About this time last year (1833), I was attending a considerable number of parish and dispensary patients in severe typhus fever, in some of which my practice was closely watched by an intelligent clergyman, who would have supplied wine at the slightest hint from me. These cases afforded me very great satisfaction, convalescence being steady and rapid." We have numerous other authorities on hand, and, if necessary, will supply them by and by, but time and space will only admit of one more quotation this week. Dr. Thomas Sewall, Professor of Anatomy and Physiology, Columbian College, Washington, uses the following plain and direct language in condemnation of the ordinary medical practice: "While we are convinced that there is no case in which ardent spirit is indispensable, and for which there is not an adequate substitute, we are equally assured that so long as there is an exception allowed, and men are permitted to use it as a medicine, so long we shall have *invalids* and *drinkers* among us. Only let our profession take a decided stand upon this point, and intemperance will soon vanish from our country."

There are two bodies of men in every Christian land, upon whom, more than upon any others, depend the future prosperity of the temperance cause: they are the doctors and the ministers. The opinion of the first is valued, because they are supposed to understand the necessities of the body; and the second, because they are supposed to be able to guide in everything affecting the well-being of the soul. The doctors should all acknowledge and proclaim, what they know is true; that alcohol is a subtle poison, and cannot be used with impunity; and the ministers, as they must account to the Eternal Judge, for the souls liable to be destroyed by their example and precept, should, fearlessly and faithfully, proclaim its demoralizing tendency, and "drink no more wine while the world standeth, lest they make their brother to offend." We are aware that the strongest testimony will fail, when opposed to the combined forces of appetite and prejudice. Many men will stand by the faith of their fathers, on this or any other subject in the face of the most clearly revealed absurdity, when inclination seconds the power of the parental precept and example. A young Scotchman was once admonished by a friend to beware of the evil effect of liquor, of which he was evidently becoming fond, when he urged that the severe nature of his employment rendered additional nourishment necessary. His friend endeavored to persuade him that there was no nourishment whatever in ardent spirits. His reply was, "I dinna like, sir, to say you're laein'; but—nourishment!—I've heard my mither say fifty times, that a glass o' whisky was just a perfect medicine." Poor Sandy's "mither," with the cravings of his *ain* stomach, were to him better evidence of the nature of alcoholic drinks, than the most cogent reasoning of the whole medical faculty; and Sandy was the type of a numerous class, whose tribes are mighty upon earth.—EDITOR.]

Your readers, perhaps, will expect me to state the grounds of my objection to Dr. TRALL's views of *alcoholic medication* as given in a previous number of your paper. I shall endeavor to do so in as few words as possible. And here at the outset, I wish to be perfectly understood. That the use of alcoholic stimulants, as a beverage is highly injurious, I most firmly believe. Men in health have no need of it; it can do them no good. They are better without it; and their only safety is in letting it alone. But that alcohol, when employed as a remedial agent, is never useful, but always injurious, I unhesitatingly deny, the very plausible theory of Dr. TRALL to the contrary notwithstanding. But what is the basis of this theory? "Why," says Dr. T., "that alcohol is an inorganic substance; that it is dead, inert, and incapable of action." Very good, sir. But that does not quite help us out of the difficulty. When alcohol is introduced into the stomach, certain extraordinary and peculiar effects are sure to follow in a very short time. Now these effects are the result of some cause, and that cause is unquestionably the alcohol. How? By its specific action on the system, as chemists, physiologists, and therapists teach? "No," says Dr. T.; "they are all in error; it does not act at all; it cannot act." How, then, I ask again, are these effects produced? Not by the action of the system itself; that would be mistaking the effect for the cause. It is the system which is excited to action—the object acted upon; but for the cause which produced the action, we must look in another direction, viz.: to the alcohol. And yet we are told that it does not act at all;—that it is inert, and incapable of action? Very strange indeed, Dr. T.! But would the effect have been produced if the alcohol had not been ad-

ministered? "O, no; that is quite out of the question; the effect is the natural result of the administration." And still you contend that it does not act at all! Here, certainly, to use the Doctor's own words, is a world of delusion. An agent is introduced into the stomach, as the result of which the most decided effects almost immediately follow, and yet no part of these effects are to be ascribed to the action of the agent which produced them! This is logic with a vengeance, and philosophy run mad.

But Dr. TRALL's objection proceeds on the alleged ground, that its "*modus operandi* is involved in mystery, that it is not understood, and cannot be explained." And because the precise manner of its action cannot be explained, he doubts that it has any action at all. Are we, then, to deny, or regard as fallacious, everything which we cannot understand or explain? A wise man will hesitate before he adopts such a theory as that. Why, how many things do we meet with in every-day life which are entirely beyond our comprehension, while the evidence of their existence and reality are too obvious to be repudiated or even doubted? A seed is deposited in the earth, and a plant or tree is the result of the process which it undergoes; but I cannot understand its *modus operandi*, or explain the mysteries of its growth, and therefore reject it as a chimera, or fallacy. That would be strange philosophy, indeed! And yet, I think it is not a whit more unsound than that which denies to alcohol the power to act on the human system, because its *modus operandi* cannot be explained. The evidence is as clear in the one case as in the other. The existence and growth of the plant is evidence enough that the seed underwent some mysterious process in the earth; and the excitement or effects produced on the system is evidence equally strong of the *action of the alcohol* to which the effects are due. And as the plant would not have existed had the seed not been deposited, so we may conclude with equal propriety that the excitement or effects on the system would not have been produced if the alcohol had not been administered. Hence, to deny to alcohol—a most active and powerful agent—the power to act at all, on the mere ground of its being an inorganic substance, is nothing more than a play upon words, or an attempt to establish a theory on principles utterly destitute of support.

But the Doctor asks again, "Why should alcohol act in the human stomach any more than it acts in the demijohn or in the apothecary's shop? Does change of place change its nature?" Now such questions as these may look very well on paper, provided they be passed over hastily, but the slightest investigation will show that they are mere empty words. "Does change of place change its nature?" No, but it changes its situation and power to act very materially. "But why does it act in the stomach more than in the demijohn?" Because, in the one case it is imprisoned, has its hands tied, and deprived of the power to act, as well as of all suitable material to act upon; in the other case it is free, and has the whole living system to act upon. To ask why alcohol should act on the human system any more than on the demijohn, displays about as much philosophy as to ask why a firebrand should act in a powder magazine any more than in a heap of granite; or why a man should attend to his business, or visit his friends while enjoying all the privileges of a free citizen, any more than when incarcerated or held in absolute bondage.

It is a fact universally acknowledged, and based on palpable and irresistible evidence, that alcohol does act, whenever it comes in contact

with the living organism ; and that its action is specific and powerful. When taken into the healthy system, its effects — the obvious result of its *action*—are always injurious, and fraught with the most dangerous, and sometimes fatal consequences. But when judiciously employed as a *medicine* its effects are often highly satisfactory and beneficial. As a beverage, it is useless, injurious, pernicious ; but as a pharmaceutical, and a remedial agent, it cannot be dispensed with. That some evil consequences have followed alcoholic medication, I do not doubt ; but these have resulted from the abuse, rather than the use of it ; and as long as the latter can be proved to be valuable, the argument derived from the former is deprived of its force.

The temperance cause will never gain anything by extravagant assumptions and baseless theories. They can do no good, and may be the means of great mischief. They may deceive the unthinking ; but will be sure to excite the contempt of the more intelligent portion of the community. Our cause demands the truth, the whole truth, and nothing but the truth. Let us assail the enemy in every honorable way ; but let us not injure him by unfair means or strive by misrepresentation to make him out worse than he is. Give even the devil his due, is my motto, and even alcohol is entitled to no less. "*Fiat justitia a ruot cælum.*"

J. C. HURD.

ALCOHOLIC MEDICATION.

From the Philanthropist of Nov. 13, 1863.

IN the communication of our friend Dr. HURD, which appeared in our issue of the 30th ult., he is pretty severe upon the sentiments of Dr. TRALL, as expressed at the late "World's Temperance Convention." Now if Dr. TRALL were on hand to plead his own cause, we would be much better satisfied to leave it in his own hands than to take it up ourselves. As such is not the case, however, we deem the subject one of too much importance to be allowed to rest in its present position.

It would be of little use to follow Dr. HURD through the different paragraphs of his communication, because, with all due respect, we see very little argument in what he has advanced. He takes up the assertion that "alcohol is an inorganic substance ; that it is dead, inert, and incapable of action," and without attempting to deny its truth, he seeks to evade its force by a question, which in order to be of any value, would require that he should first prove that alcohol was not "an inorganic substance," etc. He says, "When alcohol is introduced into the stomach certain peculiar and extraordinary events are sure to follow in a very short time ;" and he wants to know how these effects are produced. Now it certainly appears to us that Dr. HURD's first duty in the case was to affirm or deny the assumption of Dr. TRALL, for unless he can prove that alcohol is an organic substance, in contradistinction to the declaration of its inorganic nature, all his reasoning, if such it can be called, goes for nothing. We would like Dr. HURD to answer the following questions by a simple yes or no: Is alcohol an organic substance ? And can an inorganic substance act ?

It is to be presumed that what Dr. TRALL means by the term "inorganic substance," is a substance which is incapable of assimilation with any living substance—one which has none of the elements essential to the nutrition of vegetable or animal fibre or tissue. Will Dr. HURD deny that alcohol is of that nature? If such be its nature, is it unfair or presumptuous to ask how it can be rendered serviceable to the human body, or is it any wonder that intelligent men should shrink from its use, while no intelligible answer can be given to that question? Dr. HURD's illustration of the seed placed in the ground, and producing a plant, by an unexplainable process, is not to the point, because we know that the seed is an organic substance, having in itself the germ of vegetable life, and hence we do not wonder that it produces a living vegetable. But that an inert, dead substance should contribute to animal vitality is quite another and very different idea.

The question of Dr. TRALL, "Why should alcohol act in the human stomach any more than it acts in the demijohn, or in the apothecary's shop?" appears to have been regarded by Dr. HURD with singular contempt, and he regards this and all such questions as "mere empty words." Now, it appears to us, that the Doctor would have hit the point more nearly, by simply explaining what he is fully competent to explain, that when this foreign, inert, inorganic poison is brought into contact with the nerves of the stomach, the outraged sensibility of that organ calls into active operation all its forces to eject the base intruder. Its multitude of absorbent vessels open wide their tiny mouths to facilitate its passage, unchanged and undigested, to the blood-vessels of the system, and through them it rushes, or rather, we should say, *it is rushed*, to the brain, to the heart or lungs, and extremities, producing disorder and discomposure everywhere; regarded by every organ as an intruder and an enemy, with which no organ of the human body will consent to even the briefest truce, nothing will satisfy the invaded part but its expulsion. If the demi-john possessed the sensibility of the stomach it would eject it if it took; and this is the simple answer to the question, and proves, we think, conclusively, that it is not the alcohol that acts, but the forces of the living system that act upon it.

We will neither pursue Dr. HURD's theory nor our own any further for the present, but will add one or two medical opinions in confirmation of our own view of the case. Dr. E. JOHNSON says:—"I assert that they (spirits, wines, and strong ales) are in every instance, as articles of diet, pernicious; and as medicines, wholly unnecessary, since we possess drugs which will answer the same intention in at least an equal degree."

Dr. MORGAN, President of the Bath District Branch of the Provincial Medical and Surgical Association, gives the following unequivocal testimony to the utter uselessness of alcoholic agents in medical practice: "Having been engaged in practice for more than twenty-six years, sixteen years sole Physician to Whitworth Fever Hospital, Dublin, and twenty years one of the Physicians to the Dublin General Dispensary, I have had pretty extensive experience, not only in acute, but chronic diseases, and not among the higher classes only, but also among the poorest of the poor. The *Materia Medica* furnishes us efficacious and *far more potent* stimulants than any we possess in the form of intoxicating beverages. I am utterly ignorant of any disease, acute or chronic, which cannot be cured without intoxicating drinks. Medical men contend that they are an *agreeable* and *convenient* form for the exhibition of stimulants, but that there is any disease incurable without their aid, is an assertion that I never yet have heard."

Without quoting the Doctor's motto in the concluding paragraph of his communication, we can assure him and our readers that, at our hands, alcohol shall have its due. We want to see the indescribably abominable and destructive business of distillation universally outlawed, and we don't intend that its productions shall find a refuge even upon the apothecary's shelves. We have hitherto only treated the subject in a negative or defensive style, attempting only to prove its uselessness in medical practice; but at another time we intend to attack it on the ground of its injurious nature—its positive tendency to destroy the lives which it is so often used to save.

“PHILOSOPHY RUN MAD.”—THE ACTION OF ALCOHOL.

From the *Philanthropist* of Nov. 20, 1862.

To the Editor of the Philanthropist:

An esteemed friend of Temperance has called my attention to your issues of October 23rd and 30th, containing a report of my remarks in the International Temperance Convention, at London, and a reply thereto by Dr. J. C. HURD. There are several inaccuracies in the report as printed; but as they do not very materially affect the argument, I will not stop to notice them, but proceed at once to the issue involved. Dr. HURD has characterised my logic as “philosophy run mad;” but if I can show that there is a “method in this madness,” and that the method is according to truth and nature, I may, perhaps, benefit both my opponent and the cause which he, as well as myself, professes to love.

Whether my philosophy be true or false, it has been deliberately adopted after long and patient investigation; it is what I have publicly advocated for many years; it is what I have taught in a medical school for more than ten years; and it is what I have professed my ability to maintain against all possible objections; and I have made these statements, not only in London, but in public lectures in New York, Boston, Baltimore, Washington City, Chicago, Toronto, and various other places where there are Medical Colleges, and medical men capable of exposing my error, if I am in error. No one that I know of, except Dr. HURD, has offered to meet the issue I have presented; and I cannot now, consistently with my professions and pretensions, refuse the controversy. And there is nothing that I more desire, for the sake of the Temperance cause, than to have a discussion with a competent man of the medical profession on this subject; believing, as I do, that a recognition of the truth of my leading proposition is vital to the success of the temperance reform, and most sincerely desire, if I am in error, to have that error exposed and refuted.

I have long said and believed that, so long as alcohol is prescribed as a medicine by medical men, so long will it be used by the people as a beverage. And I have yet to learn of a single fact or argument that can be adduced in favor of its medical use, that will not apply with equal pertinency and cogency in favor of alcoholic beverages.

But I do not place my objections to alcoholic medicine on the ground of philanthropy or benevolence. I place them on the scientific basis. I do indeed believe that, if there was enough of the spirit of Him who "went about doing good," some eighteen hundred years ago, among the leading members of society at the present day, alcohol would be very soon excluded from the drug-shops, while the dram-shops would be summarily closed. But my business with alcohol is as a physician, and physiologist may deal with it.

Let me be distinctly understood. I do not here object to alcoholic medication for the sake of the Temperance cause, however much this cause might be advantaged by its disuse. But I object to the employment of alcohol as a medicine because it is bad *per se*; because it is injurious to the sick person who takes it. I take the position that alcohol is not in any sense a supporter of vitality; and that in all cases of depression, debility, exhaustion, etc., in which it is deemed useful by medical men, it is positively pernicious. I do not take the ground that physicians can dispense with alcohol because other stimulants or other remedial agents can be *substituted* for it. My objection is to the alcohol itself, without reference to anything else. It is *good* or it is *bad*. If its administration benefits the sick; if in any manner or to any extent, it contributes to the restoration of health, I am for its medicinal employment, let what will become of the Temperance Cause. I cannot deny any truth to promote any cause. I go hand in hand with Dr. HURD, for "the truth, and the whole truth." And I am for "giving the devil his due," if I can find out what *is* due that most unworthy and diabolical personage; yet I confess it perplexes me exceedingly to imagine how anything can be due to such a character. I do not, however, wonder that persons who regard alcohol—a physiological or toxicological devil—as *useful* in the work of purification and restoration in the organic domain, should think of ascribing due praise to it; and I do not see why they cannot as well think of employing his satanic majesty in the work of moral reform and spiritual medication. But I am of opinion that the devil toxicological, and the devil theological had better be "let alone severely," in the work of bodily renovation or spiritual salvation.

For the profitable discussion of scientific principles, three conditions are necessary: 1st. The disputant must understand the premises of his opponent. 2nd. He must have a clear conception of his own premises. 3rd. His logic must be consistent with itself. I think Dr. HURD's article is defective in each of these particulars. He has totally misconceived my positions, and entirely overlooked the first premise on which they are predicated; and he has strangely confounded *causes*, *actions*, and *effects*, as all medical men do who reason on this subject from false stand-points.

My whole theory of the relation of alcohol to the living organism, and of its effects, whether good or bad, as a medicine or as a beverage, starts from the fundamental proposition that, *alcohol does not act on the living system*, but that, on the contrary, the *living system acts on the alcohol*. My doctrine is precisely the reverse of that which is generally believed, and which chemists and physiologists teach, and on which the medical profession has practised for three thousand years. I do most distinctly charge that the whole world has been mistaken, and that the rationale of the effects of alcohol can never be explained or understood until this primary truth is recognised.

With what Dr. HURD "firmly believes," or "unhesitatingly denies," or with what is "universally acknowledged," or "based on palpable and irresistible evidence," and other glittering but unmeaning generalities and assumptions, I have no concern. With his facts, and data, and arguments, and logic, I have a controversy.

Says Dr. HURD, "when alcohol is introduced into the stomach certain extraordinary and peculiar effects are sure to follow in a very short time." All right. What next? "These effects are the result of some cause and that cause is the alcohol." True. Go on, and tell us *how* the alcohol produces the said effects. This Dr. HURD does not pretend to do. Yet the whole gist of our controversy lies in this little monosyllable. *How* does alcohol act? In other words, what is the rationale of its effects? I say it does not act at all. Dr. HURD says it does. The issue is direct and palpable. It is plain yes, or simple no. Which is true? I say the effects of alcohol are attributable to the action of the living system against the alcohol. Dr. HURD says the effects of alcohol are owing to the action of the alcohol on the living system. Let us meet the issue fairly and squarely without dodging.

One more word, however, as preliminary. If it can be proved that alcohol acts on the living organism in any manner, I am willing to concede that such action may be useful in disease. But if I can show that the effects of alcohol are the efforts of the vital powers to rid the system of its presence; and that alcohol is not the acting principle, but that its presence in the vital domain is the occasion of an action, self-defensive and remedial, which contemplates the expulsion of alcohol because, as a poison, it has no business, no use, and cannot be tolerated within the domain of vitality, then I have a scientific basis for rejecting its employment, either as a beverage or as a medicine. And now what is "the truth, the whole truth, and nothing but the truth, which our cause demands?"

Dr. HURD's words are—"The effects of alcohol are not produced by the action of the system; this would be mistaking the effect for the cause." Not exactly, Dr. HURD. You are in a sad muddle to begin with. What are the effects of alcohol? Pain, heat, redness, swelling, inflammation, fever, spasms, delirium, &c., &c., according to quantity. Can any one of these symptoms (effects) exist, if the living system does not act? Try alcohol on a dead person and see if you can produce any one of these effects (symptoms). There is no action at all. Why? Because there is no life-principle—nothing to act. Each one of these symptoms (effects), is a manifestation of action, not alcoholic, but vital.

Says Dr. HURD—"It is the system which is excited to action." Of course it is. How could any thing act if it was not excited to action? How can there be an effect without a cause? Will you please tell us in what manner alcohol can be "excited to action." Place a hot iron within an inch of alcohol. The alcohol will not move. Why? Because, being a dead, inert, inorganic thing, it cannot be excited to action. When Dr. HURD allows that alcohol excited the system to action, he concedes the whole argument, and I marvel that he does not see it.

But I did not quote the whole of Dr. HURD's sentence. Here it is. --"It is the system which is excited to action—the object acted upon." The last clause renders the whole statement nonsensical, and flatly contradicts the first clause. The system is in a state of action and yet is the "object acted upon." Ergo, it acts upon itself. Where, then, is the action of the alcohol? Verily, the alcohol is the object acted upon.

But Dr. HURD's confusion becomes worse confounded as he proceeds. He says—"But, for the *cause* which produces the action we must look to the alcohol." So we must. All actions have causes, and all actions produce effects; and to reason logically, we should distinguish between *causes, actions, and consequences.*

Dr. HURD asks—"Would the effect (he means action), have been produced, if the alcohol had not been administered? To which I reply, in all possible seriousness, by no manner of means. If there is no *occasion* for an action, there will not be any action. If alcohol is not put into the system, (mind you it does not go there itself,) the system will not expel it. If you should not eat a potato, you would never digest it. If you should never take an emetic, your stomach would never vomit it out. In one of the Paris theatres, a Boa Constrictor, on exhibition, swallowed a bed blanket, and after four weeks vomited it up. And I candidly confess that, if the bed blanket had not been "administered," the effect—vomiting—would not have occurred.

Says Dr. HURD again—"An agent is introduced into the stomach, as the result of which the most decided *effects* almost immediately follow, and yet no part of these effects is to be ascribed to the action of the agent which produced them."

He will, perhaps, understand this "logic with a vengeance," better, if we vary the language a little. The *effects* which the *presence* of alcohol in the living system *occasion*, are owing to the *action* of the living system in its efforts to expel the alcohol, being perfectly passive, whether within or without the organic domain.

Try a simple experiment. Place a drop of alcohol in your eye, or in the eye of a dog or a cat. In a moment the eye is inflamed, and inflammation is action, not of alcohol, but of the blood vessels. There is *cause, action, and effect.* Alcohol is the *cause* of the action; and the *action* is the determination of blood to the part, and this is the *disease*, the remedial effort, which we term *inflammation.* Now apply the alcohol to the eye of a dead animal, and see if it will produce inflammation. Who will say that inflammation is not vital action? True, alcohol was the occasion of this action, but a thing whose presence occasions an action, and the action itself, are very different things, according to my "philosophy run mad."

Let me give Dr. HURD a still plainer illustration. Catch a *live* dog, put a stone "as large as a piece of chalk," into its mouth, and with a probang or a poker force the stone down the poor creature's oesophagus into its stomach. Watch the dog and see what becomes of it. Soon the animal will be straining, cramping, retching, vomiting. What is the matter? Is the stone, think you, acting on the dog's stomach? Is the stone trying to get out of the dog? Is the stone afraid of being digested? Is the stone displeased with its new locality? Is the stone raising a tremendous tumult in the intestinal tube? Is the stone endeavoring to "skedaddle" by way of the bowels? Or is it working its way to daylight through some other channel? And if no stone had been administered, would these "extraordinary and peculiar effects" have been produced? What is the trouble? What the rationale? What is the cause? and what the action? Is the stone acting on the dog? or is the dog acting on the stone? or are they mutually acting on each other? If the stone had been placed on the dog's back—on the outside—and the dog had shook it off, nobody would have suspected that the stone acted on the dog, although it "excited" the dog to action. Not even

Dr. HURD would regard the dog as "the object acted upon." But now the stone is within the dog. "Does change of place change its nature?"

But alcohol is not a stone, and a human being is not a dog; and Dr. HURD may not see that those cases are parallel.

Dr. HURD continues—"Dr. TRALL's objection proceeds on the alleged ground that the *modus operandi* of alcohol is involved in mystery, that it is not understood, and cannot be explained."

I beg to be excused from any such "proceeding." My objection "proceeds" on the ground that I *do understand* the rationale of the effects of alcohol, and that the *modus operandi* of alcohol, and of all other agents, be they foods, medicines, or poisons, can be explained on the premises I have laid down, and in no other way. I go further and say that, all of the fundamental problems in medical science, which have baffled the investigations of medical men in all ages, and which are to this day regarded as profound and inexplicable mysteries, are explainable on the theory I am advocating, such as the essential nature of disease; the *modus operandi* of medicines; the rationale of the different forms of disease; the rationale of the different classes of medicines; the doctrine of the *vis medicatrix nature*; the theory of vitality, &c., &c.

Again, says Dr. HURD, "To deny to alcohol the power to act on the mere ground of its being an inorganic substance is nothing more than a play upon words." It is a little different, I think. It is a statement of a law of nature. It is a declaration of the relations between living and dead matter. The very term, inorganic, implies inaction, inertia, passivity. An inorganic thing has no action except in the mechanical or chemical sense. Dead things do not act on living. The medical profession has entertained this primary fallacy quite too long already. It has practiced a "healing art," based on a fundamental error for nearly 3,000 years, and its success has been precisely what might be *a priori* expected to result from a false dogma. If the medical profession can once be made to realize this great primary truth, it will soon relieve itself of a world of error and delusion, and it will become a leader in health and temperance reform movements, instead of being, as now, the greatest obstacle in their pathway.

Let me repeat. Inorganic things do not act on organic. The reverse is true throughout all the domain of vitality; in all the realms of the universe; apply this principle where you please, to what you please, it will hold good. And until this principle is recognised by medical men, medical science will continue to be the "incoherent expressions of incoherent ideas," and the practice of the healing art "blind experiments on the vitality of the patient."

To my question, "Why does alcohol act in the human stomach any more than it acts in the demijohn," which he characterises as "empty words," Dr. HURD replies, "No, but it changes its situation. It changes its power to act." Let us analyze this little "it." "It" (alcohol) changes its situation. Does it (alcohol) go from one place to another of its own accord? Does it travel, or is it carried? Does it change itself, or is it put *volens volens*? "It (alcohol) changes its (alcohol's) power to act." Then it changes itself. It acts upon itself. And in "changing" its power to act, it has acquired a power to act. There is nothing in all the universe (alcohol excepted) that has the power to create itself! Are not these phrases something worse than "empty words?" Are they not arrant nonsense? And yet they are a fair specimen of the general reasoning of medical men on this subject. I have

many times listened to the arguments of medical men, who have undertaken to prove that alcohol acts on the living system, and they are all quite as self-stultifying as Dr. HURD's. Did not the stone in the dog's stomach "change its power to act," or take to itself new and wonderful powers the moment it *was put* there? Suppose you try again to answer the question: "Does change of place, change the nature of alcohol?"

But now comes the cap of the climax of ratiocination. In answer to my question: "Why does alcohol act in the stomach any more than it acts in the demijohn?" he replies, "Because in the one case it is imprisoned, *has its hands tied*, and deprived of the power to act, as well as of all suitable material to act upon." If this is not "philosophy run mad," it is metaphor let loose, or simile gone crazy. If alcohol were a live animal, the reasoning would be excellent. If alcohol were a cat, a dog, an ox, a horse, or even a man, the logic would be unanswerable. If alcohol were anything in the world but "a dead, inorganic, inert substance," the argument would be as impregnable as the everlasting mountains. But alcohol is alcohol, and this stubborn fact reduces the rhetorical flourish to "empty words."

Let us demonstrate their "emptiness," by putting the argument of Dr. HURD to the proof. Let us untie the "hands" of the alcohol. Let us *disimprison* it, and see what it will do. Take the stopple out of the demijohn. The alcohol remains quiet. Shake it a little. It settles down to quiescence as soon as you let it alone. Turn it out on the floor. It *runs* (not of its own power, for the force of gravitation *drags* it,) into the cracks and then refuses to stir. Pour it on the street, giving it the freedom of all out-door. It will not budge an inch. It may be evaporated by the sun, but mark you! it does not *evaporate* itself. Manipulate the thing as you please; it will do nothing. It only *suffers*. It is only *done unto*. And so the first clause of your statement fails. It is not for want of freedom that alcohol does not act on a demijohn, (and by the way, why can't it act on the *inside* of a demijohn)?

But it wants "suitable material." And, strangely enough, the suitable material always happens to be something that possesses the principle of action within itself. Alcohol can act on the whole living organism, outside or inside, or any part thereof, but it can act on no part of a demijohn! Can you not see that the whole living system, or any part of it, so long as it has life, acts upon the alcohol? To settle the question forever, you have only to try the experiment, as I have said, on a dead person.

But I have already extended this communication to a much greater length than I intended, when I commenced it. If Dr. HURD, or any other medical or scientific man, is now disposed to meet the issue as I have presented it, I am ready to go on with the discussion. I can entertain no doubt that he is anxious to have the exact truth established. I know that I am, and perhaps a frank and free discussion may tend to that result.

R. T. TRALL, M. D.

No. 15 Laight Street, New York.

DR. R. T. TRALL vs. THE ACTION OF ALCOHOL.

From the *Philanthropist* of Nov. 27, 1863.

MR. EDITOR :—I saw in the last number of the *Philanthropist* a long and cleverly written article from Dr. R. T. TRALL, of New York, in reply to some observations which I ventured to publish in opposition to his views of the action of alcohol, and its use as a medicine. Perhaps, you will regard it as little short of presumption, on my part, to combat a theory based on professedly scientific principles, and supported by most unquestionable ability. And I assure you that I do not very ardently covet the almost inevitable consequences of a necessarily unequal contest with such an antagonist. Besides, there is much in the Doctor's article with which I agree, and much that I admire. There is a noble frankness in his style; a bold and dashing independence in his statements; a singular aptness in making illustrations; a heroic disregard of all opposition, and an unbounded confidence in the infallible correctness of his views and opinions. Add to this his age, his position as a teacher in a medical school, his superior advantages as a medical practitioner, and last, but not least, the popularity of his views amongst a respectable proportion of your readers, and then, surely it would be no matter of surprise, if, in a controversy with Dr. TRALL, on points so delicate as those involved in the issue he has presented, I should be subjected to a mortifying defeat. Still, I am not so much alarmed for the result as you might imagine, and while I regret my inability to do the subject the justice which its actual importance demands, I think I will be able to support the position I have assumed in relation to the question at issue, on a basis which will require, to overthrow it, something rather more to the point—a little more logical and conclusive than the learned Doctor has yet thought proper to produce. Dr. TRALL objects to alcoholic medication, "not for the sake of the Temperance cause;" but because, in his opinion, "the employment of alcohol, as a medicine, is bad *per se*; because it is injurious to the sick person who takes it." In his opinion, "it is in no sense a supporter of vitality, and in all cases of depression, debility, exhaustion, &c., in which it is deemed useful by medical men, it is positively pernicious." This is certainly a most marvelous discovery, and if it could be proved to be anything more than a mere fancy in the mind of its ingenious author, he would certainly be crowned with laurels of enduring fame. But on what does this new discovery rest; on what does it base its claim to our acceptance or belief? "Why," says Dr. TRALL, "On the fundamental proposition that, *alcohol does not act on the living system; but that the living system acts on the alcohol.*"

This the Doctor asserts is precisely the reverse of what has been "generally believed and practiced by the medical profession for three thousand years." "The whole world," he says, "has been mistaken, and the rationale of the effects of alcohol can never be explained nor understood until this primary truth is recognized." Such is the basis of Dr. TRALL's theory. I think he will not now charge me with "totally misconceiving his positions," or with "entirely overlooking the first premise on which they are predicated." I may, therefore, consider myself tolerably safe as it regards the *first* "condition of a profitable discussion." Of the remaining two "conditions," the reader may form

his own opinion when I am done with the question. I think Dr. TRALL has "totally misconceived" his own position, or, at least, has mistaken the principles on which his theory professes to be based. He contends that alcohol has no action at all—that it has no power to act, and clinches this "fundamental proposition" with the fact that it (alcohol) is an inorganic, dead, inert thing. Now, that alcohol as an inorganic substance, has not the power to *act* in the ordinary sense of that term, that is, in the sense in which it is applied to living beings, implying the power to move from one place to another, to walk, leap, run, lift, &c., &c., is a simple fact, which no sensible man will attempt to dispute. But when the term is employed in a scientific, chemical, or medical sense, a widely different idea is involved. In this sense, then, and in this alone, do we claim for inorganic substances the power to act, and that, in such sense, they *are* capable of action, and *do act*, is a "fundamental proposition" highly susceptible of proof. To deny it is virtually to ignore the established usages of scientific language, and to strike a blow at the whole science of chemistry as taught at every school or college on the face of the earth. For if you expunge the word *action* from the chemist's vocabulary; if you deny to inorganic substances the power to act in the chemical sense of the term, you throw the science into confusion, and set aside the only principles on which it is possible to explain the chemical changes and operations which many of these substances are known to undergo, when placed in contact with each other in the laboratory or elsewhere. Here we see two or more substances brought together, and a change instantly or gradually, according to circumstances, ensues; and the change is so complete, that not a vestige of the original substances, as to form or appearance, remains, and one or more new substances result from the process. How is all this brought about? How are these changes to be understood or explained? On the principle laid down by Dr. TRALL, that inorganic substances have no action at all? No, but on the principle that under the operation of chemical laws one substance acts upon another, or two substances combine, forming an entirely new substance by mutual reaction on each other.

But, to come nearer to the point at issue, if, as Dr. TRALL so confidently asserts, the results produced by the introduction of inorganic substances into the living system are due solely to the action of the living system on those substances, why is it that different results follow the administration of different substances? Why is one class of symptoms or effects produced by one substance, and another by another? Why are different parts of the system affected by the introduction of different agents? Why, for example, does strychnine take effect on the spinal chord; oil of tobacco on the heart; arsenic on the mucous membranes of the alimentary passages; mercury on the salivary glands; cantharides on the renal organs; chromate of potash on the conjunctiva; iodine on the lymphatic glands; manganese on the liver, and lead on the muscles of the wrist? And on this difference of effect, produced by different substances, is based the whole arrangement or systematic classification of remedies described in the pharmacopœias, and employed in the hands of physicians for the cure of disease. If, therefore, their effects are due to the action of the living system alone, as Dr. TRALL assumes, and not in any sense to the physiological and therapeutical action of the remedies themselves, as hitherto taught by scientific chemists, physiologists, and therapeutists the world over; then,

I ask again, in all sincerity, why does the living system not act upon them all in the same fashion? Why does one affect the stomach, another the heart, another the liver, another the kidneys, and so on? And why does Ipecacuanha produce the effect, or to use the obnoxious word, as far more convenient and expressive—act as an emetic; oleum tiglii, as a cathartic, spiritus ætheris nitrici, as a diuretic; eupatorium perfoliatum, as a diaphoretic; myroxylon, as an expectorant; hydrargyri chloridum mitis, as a sialagogue; hyosciamus, as a narcotic, &c., &c.? Or why does one substance produce the effect of sedative, another that of stimulant? Why does one substance elevate, and another depress the spirits? How are all these different effects produced? “By the action of the living system upon these substances,” says Dr. TRALL, “and not in any sense by their action on the living system.”—But here, to use the Doctor’s own words, he is in a “sad muddle,” to get out of which he will require the aid of philosophy a little more profound than he has yet brought to the support of his “fundamental proposition.” The only rational method of explaining the matter is, that each of these various substances has a specific physiological and therapeutical action of its own, according to its nature, the quantity administered, and the condition of the living system into which it is introduced.

Any other explanation with which Dr. TRALL may furnish us will receive the most candid and careful consideration. In the meantime I am compelled to regard the Doctor’s new theory in general, and its “fundamental proposition” in particular, as utterly untenable, and, destined to pass away “like the baseless fabric of a vision.”

The mere fact that Dr. TRALL has held these views with regard to the action of alcohol for ten or twenty years, and openly avowed them in various States of the Union, in Canada, and Great Britain, and even taught them in a medical school, is nothing to the point whatever. Time may do many wonderful things, and work great changes; but it never has, and never will, of itself, make wrong right, or change error into truth.

DR. TRALL charges me with being the first who has offered to meet the issue he has presented; but I can assure the Doctor that I am not the only one who has written in opposition to his views of alcohol as a medicine. I can furnish testimony in abundance emanating, within the last two years, from the pens of physicians, and teachers in medical schools, of acknowledged reputation, in favor of alcoholic medication, and that too, based on the fact of its physiological and therapeutical action. I regret that the length to which this article has already grown, must prevent me from going further into this part of the subject at present; but let Dr. TRALL, to use his his own rather expressive language, meet his objections to his “fundamental proposition” as stated above, “fairly and squarely, with no dodging,” and then we will see “what next.”

I am, sir, very truly yours,

J. C. HURD.

FREDERICTON, Nov. 25, 1862.

THE ALCOHOLIC CONTROVERSY.

DR. TRALL TO DR. HURD.

From the *Philanthropist* of December 18, 1862.

IN the *Philanthropist* of November 27th, DR. HURD signifies his willingness to accept and discuss the issue as I have presented it. I am glad of the opportunity it affords me to explain more fully what I believe to be the true philosophy of the healing art, and what I also deem to be the scientific basis of the Temperance reformation. No language can exaggerate the importance which I attach to this subject, for the leading principle involved in this controversy underlies all the problems which concern life, health, diseases, and remedies.

Why is it that medical men who declare alcohol to be a "caustic and irritant poison," and who, in all of their experiments, find it to be inimical to everything that has life, and who declare in their temperance speeches that it has filled the world with vice, crime, pauperism, madness, disease, and death, and who point to an army of ruined mortals on the verge of drunkards' graves, and who see a larger army of moderate drinkers marching on to take their places, and who are eloquent in describing widows' tears and orphans' groans, broken hearts and desolated homes, all the results of liquor drinking; and yet, who cannot be called to the bedside of a sick person without administering the same "caustic and irritant poison" to give the patient life and health? I *know* there is delusion here. I have ascertained precisely in what this delusion consists. Whether I can make the medical profession recognize and understand the error they are laboring under remains to be seen. I am acquainted with a few medical men who have seen this error, and abandoned Alcoholic medication. At the late International Temperance Convention, several medical gentlemen stated that they had for five, ten, and twenty years disused alcohol as a medicine, and their uniform testimony was, better success in the treatment of disease. A clergyman from Wales made a remark to the effect that "if all who signed the pledge had only kept it, the temperance cause there would now have been nearly achieved." How can people keep the pledge, or why should they keep it, when the medical profession is teaching them that alcohol will "support vitality?" And every temperance man I am acquainted with who had labored long in the field tells me that he finds the doctors, aye the *temperance* doctors, the chief obstacle in their pathway everywhere; and to the precise extent that alcohol is prescribed as a medicine, men fall away from the pledge. And why should they not?

If I believed that alcohol is a good medicine I should regard the pledge as a childish farce. The idea that you can pledge men to abstain from alcohol while you teach them that it possesses marvelous and unequalled remedial properties, or restorative virtues, is not founded on a practical appreciation of "human nature as now constituted." I am of opinion that every temperance physician who prescribes alcohol as a medicine, does the temperance cause more damage than his teetotal preaching can possibly do it good. But the question is, is alcohol as a medicine useful or injurious? I say it is injurious *in all cases*.

The objections which DR. HURD has raised to my fundamental premise, though irrelevant, are quite natural to one who has been educated into the falsities of the popular medical system, and I must do him the justice to say that he evinces a disposition to discuss the whole subject frankly and fairly, which is a good deal more than I can say of some of our professional brethren. That he asks me half a column of questions, instead of replying to my *one* question, I do not complain. I do not expect impossibilities. He *can* ask questions; but answer my question, "how does alcohol act?" he *cannot*.

He has not adduced the shadow of a shade of evidence that alcohol acts in any manner on the living system. This is the first thing to do; but, instead thereof, he "changes his base of operations" and brings in the whole subject of the *modus operandi* of medicines. For this "flank movement" I was quite prepared. It was inevitable on his part. But I shall be very sure to prevent him from getting between me and my first premise, so as to cut off my communication with the laws of nature and capture my supplies of facts and logic. This discussion always did and always must take this direction. The rationale of the effects of all medicines is inseparably connected with the question of the *modus operandi* of alcohol; and whatever theory will explain the *modus operandi* of one medicine or one poison will explain that of all. This is why some physicians, with a shrewd eye to business, ignore the discussion on this subject. They reason that, if alcohol be proved to be *bad* as a medicine in all cases, and if it be shown that physicians are mistaken in this matter, and if people are made to believe that what physicians regard as "supporting vitality" is really an expenditure and loss of vital power, the same reasoning may be applied to other medicines, and finally the whole *materia medica* will be disproved or discredited, and then what will become of "Othello's occupation?" I hope and trust no such reflections will be entertained by my present opponent. Let us have the exact truth, let what will become of the temperance cause, or the medical profession.

DR. HURD thinks my assumption that "alcohol is not in any sense a supporter of vitality," a "marvelous discovery" if true. When he undertakes to prove that it does support vitality he will probably marvel that the discovery was not made a thousand years sooner. But, marvelous or otherwise, there is one thing a thousand times more marvelous, and that is the fact that any scientific person should, in this enlightened age, entertain for a moment the self-evident absurdity that alcohol is in any sense a supporter of vitality. It is only to be accounted for by the fact that medical men, in being educated into certain absurd dogmas and false premises, have been, in relation to those subjects, educated out of the exercise of their common sense. And here let me whisper to DR. HURD, in view of what may come before us, "before I have done with this question," that I claim a great deal more than he has given me credit for claiming. I claim to have ascertained the exact truth of *all* the fundamental problems in medical science, which have baffled the investigations of the medical profession for three thousand years, and to have solved all of the secondary problems growing out of them. Among these discoveries are the True Theory of Vitality; the Essential Nature of Disease; the Nature of the *Vis Medicatrix Naturæ*; the Relations between Organic and Inorganic matter; and the most perplexing of all medical problems, which to this day the profession confesses its entire ignorance of, I mean the *Modus Operandi* of Medi-

cines. And it is precisely because of this discovery that I am enabled to do what has never been done before, viz.: explain the rationale of the effects of alcohol; and on this explanation I predicate the opinion that it is never useful, but always injurious, either as a beverage or a medicine, and that it cannot in any sense "support vitality."

I am very ready to admit that DR. HURD can furnish any quantity of testimony, so far as the opinions and assertions of medical men and text-books of medical schools are concerned, that "grog is good," that "gin schnapps" is a "wholesome dietetic beverage," that lager is a beautiful "refreshment," and that "rum, brandy, whisky, wine, are very nice and fine," not only as medicine, but as victuals and drink. I am aware that Liebig, the greatest of chemists, regards alcohol as "respiratory food." I know that Pereira, the first of therapeutists, terms alcohol a "stomachic restorative." I have learned that Carpenter, who stands at the head of physiology, denominates alcohol a "supporter of vitality." And if our disputation only concerned what learned men say or think, I should be silenced at once. The "authorities" are all on his side. Where would be my discovery if I only echoed the prevailing theories? But the issues between me and DR. HURD are *what is true? who is right?*

Those who recommend alcohol as a medicine confess, without a single exception, that they cannot explain its action; that they know nothing of its *modus operandi*. They do not pretend to understand the rationale of its effects. On the contrary, I claim to have solved this problem; and surely it cannot be so very "bold," and "dashing," nor presumptuous for a person who professes to understand a particular subject, to oppose his opinions and his reasonings to those who confess that they know nothing about it. But, I charge the profession in general, and DR. HURD in particular, with worse than simple ignorance. They are in error. They teach a false doctrine. "A principle in science is a rule in art," say the dictionaries. If the principles of so-called medical science are *false*, how can the rules deduced therefrom be applied successfully to the practice of the Healing Art? It is because medical men entertain a false theory of the relations of living and dead matter, that their "remedies" kill so many of their patients. It is because physicians entertain a false doctrine of the relation of alcohol to the living organism, that alcoholic medication kills its thousands every year. Medical men *must* and should prescribe according to their theories.

But I do not propose to rest this argument on a mere clashing of opinions. It is a matter of fact; a question of science. It involves a principle in philosophy, and a law of nature.

DR. HURD informs us that, the testimony of medical men in favor of alcohol as a medicine, is "based on the *fact* of its *physiological* and *therapeutical action*." Suppose the fact does not exist? I deny that any *poison* can act physiologically. I deny that alcohol acts on the living system at all. In the above statement DR. HURD has assumed the thing yet to be proved. The *effects* of poisons (not actions) are *pathological*. If medical men reasoned from correct premises they would never murder the Queen's English nor shock the world's common sense, by telling us of the *physiological* actions of *toxicological* substances. They might as well prate of healthy disease, or morbid health, or vicious virtue, or true falsehood, or infernal goodness, or good diabolus. I am aware that all of the standard works on *Materia Medica*, *Therapeu-*

tics, Toxicology, and Medical Jurisprudence, term the symptoms of disease, which are occasioned by poisons, "physiological effects;" but much nonsensical phraseology can only come of absurd premises. Says Professor Paine (Institutes of Medicine), "All of our remedies are essentially morbid in their operation." And again, "We do but cure one disease by producing another." The Allopathic system is based on the idea of curing a primary disease by producing a remote or dissimilar drug disease—"Contraria Contrariis Curantur." Homœopathy professes to cure the original malady by inducing a similar drug disease—"Similia Similibus Curantur." Says Professor Alonzo Clark, M. D., of the New York College of Physicians and Surgeons, "All of our curative agents are poisons, and, as a consequence, every dose diminishes the patient's vitality." Does this sweeping word "all" include alcohol? If so, how does alcohol "support vitality?" If an invalid takes a dose of alcoholic medicine three times a day for thirty-three and third days, he will have diminished his vitality just one hundred times. And here is a beautiful sum in arithmetic—"Rule of Three Direct"—which I will leave my adversary to cipher out at his convenience. If one hundred *diminutions* of vitality will "support vitality" immensely, how much of such "support" will be required to kill an individual of ordinary or extraordinary dimensions?

If medical men, even those of "acknowledged reputation," teach one doctrine, while nature teaches the opposite, I am disposed to regard nature as the "higher law."

Whether alcohol does or does not act at all, is the primary issue between me and Dr. HURD; and this is just the point which he continually evades. I gave a variety of illustrations in support of the negative: but instead of meeting them he has bombarded me with half a column of interrogations concerning the effects of other drugs and medicines. Well, it is easier to ask questions than to answer them; and besides, it is a very convenient method for changing the issue when the argument comes too nearly to the point.

I do not, however, regret this course, for I am prepared to answer all of his questions, and glad of the opportunity, even if he does not answer a single one of mine. Dr. HURD has not yet fully comprehended the import of my fundamental proposition, simple as its statement may seem, or he would never have "skedaddled" into the domain of chemistry to prove or disprove a physiological problem. He might as well have quoted delirium tremens as an illustration of physiological habits; or referred to that physical commotion we term an earthquake, as an illustration of the vital process of digestion. He refers to the chemical change in which two inorganic substances combine and form one, to prove that alcohol acts on the living system. I shall show that the fact proves just the contrary. I am free to admit, what everybody knows to be true, and what no one ever thought of disputing, that chemical elements act chemically, mechanical things act mechanically, and inorganic substances act inorganically; in other words dead matter acts on dead matter, in the physical, mechanical, or chemical sense. But all this is nothing to our purpose. Our question is: Does alcohol act on the *living* system?

What is chemistry? And what is physiology? Chemical action is the accretion and separation of the atoms of dead matter. Vital action is the transformation of matter into living forms—a different thing entirely. Chemistry takes cognizance of the combinations and decom-

positions of dead-matter. There is no chemistry in the living organism. Were alcohol or any other drug or medicine to act chemically upon the living system it would combine with it, and that would certainly be the death of it. The evidence would "prove too much" as the lawyers sometimes say. DR. HURD would have the action of alcohol explained on the principle that "two substances combine and form an entirely new substance." Nothing could more effectually demolish the argument he is endeavoring to sustain. Alcohol is said to act on the brain by a special affinity. Does it combine with the brain and form a new substance? If so we should amend the chemical nomenclature by adding thereto an *alcoholate of encephalon*! Chlorine and mercury will combine and form a new substance called calomel, and then the calomel may be decomposed and the chlorine and mercury reproduced. Nothing like this happens in the domain of organic life. Air does not combine with the lungs; light does not combine with the eyes; water does not combine with the mouth; a potato (or a beefsteak if you prefer that article—I am a vegetarian), does not combine with the stomach; a poultice or a blistering plaster does not combine with the skin, nor does alcohol combine with any part of the living organism. Dead things combine with dead things, and this is *chemistry*. Living matter acts on dead matter, and this is *vitality*. Living matter transforms usable things—food, air, water—into its own substance, and this is *physiology*. Living matter resists and expels poisons—calomel, alcohol, &c.,—and this is *pathology*.

It is true that the chemico-physiologists and the whole medical profession teach, absurdly enough, that drug medicines have "special affinities" for the organs on which they are supposed to act. But nature and all true science, as I think I can demonstrate, teach the contrary. Which is the best "authority?"

Food is digested and formed into tissue, and the debris or ashes of the tissues are expelled in the form of excrement. The food can never be reproduced by chemical manipulation. Poisons are non-usable; they cannot be transformed into blood, flesh, bone muscle, nerve, brain; hence, they must be expelled. Alcohol is not used in the organic economy. It is simply carried (it does not *go*, mind you!) through the system, and expelled without being, in any manner, changed.

I have said that alcohol is not, in any sense, a supporter of vitality, and professed my readiness to defend this position against all that can be alleged on the other side, by all the scientific men of all the earth, and I mean all that my words imply. That alcohol is not a supporter of vitality in any sense, nor under any circumstances, is proved by the simple fact that it undergoes no change in passing through the system. Who would pretend that a potato or a beefsteak, which was passed straightway through the alimentary canal, and was expelled in the state in which it was taken into the stomach, could impart nourishment to the body? The proposition would be so self-evidently absurd that a child would laugh at it. And yet there is nutrient material in the potato or steak. Alcohol is passed through the system unchanged. What then can it impart? It is said to impart vitality. Does vitality exist in alcohol? And can alcohol impart what it does not possess? Was there ever such a marvelous muddle as this alcoholic one? The theory on which alcoholic medication is predicated is, in every scientific point of view, a non-common-sensical vagary. All the facts upon which its employment is justified are all false assumptions. And yet temperance

physicians can see no better way of restoring the diseased organism to health than to poison it with alcohol.

Will DR. HURD please tell us *what* alcohol does to the system that is remedial, and *how* does it support vitality? Let him name any disease he pleases, and then explain if he can, in what manner alcohol will benefit his patient. This will bring us at least to one practical point. I suspect that it will tax his ingenuity to the utmost to put words together so as to make an explanation that will bear the ordeal of scientific examination for one moment. Talk of this "demon of the glass," this "serpent of the still," which "biteth like a serpent," and "stingeth like an adder," which does not exist normally in any living thing, which is denounced in the Bible, abhorred of nature, condemned in science, repudiated by experience, and execrated by all history, and whose effects are uniformly and always debility, disease and death—talk of this thing "imparting" or "supporting vitality!" Is it not a most strange delusion? Is not the blunder unparalleled? Was the scientific world ever so muddled on any other subject? Is this chemical compound of oxygen, hydrogen, and carbon, which we term alcohol, an exception to all laws of nature, to all principles of philosophy, to all deductions of science, and to all conditions of physiology, or are medical men laboring under one grand mistake? Medical men *have* mistaken stimulation for strength; they have mistaken inflammation for nutrition; they have mistaken fever for a heat-forming principle; they have mistaken vital waste for vital supply; they have mistaken poison for food; they have mistaken disease for health. Is it not time that this error was corrected?

And now to the *modus operandi* of medicines. DR. HURD seems to have a presentiment that his illustrations of chemical action are not exactly to the purpose, and so he "comes nearer," by asking me a long series of questions, all which, I am happy to inform him, were many years ago answered and explained in my public works. The sum of all his questions is, why do different drugs occasion different effects, if it is only the one living system which acts, and not the several drugs? He might as well ask me why, if all human beings are formed and fashioned in God's image, do they look and act so differently? or why, if animals and vegetables are controlled by the same laws of organization, do they divide and subdivide into so many species and varieties? or why, if minerals, and mountains, and rocks, and precious stones, are constructed by the same physical forces, are they not all of the same shape, size, and color?

"Why does strychnine 'take effect' on the spinal cord?" "Why are different parts of the system *effected* (affected?) by the introduction of different agents?" "Why does ipecacuanha *act* as an emetic?" "Why does one substance elevate and another depress the spirits?" &c. When DR. HURD fully comprehends either his own language or my primary premise, he will cease to talk in this nonsensical, but customary and approved style. Such language is not sufficiently precise for a scientific discussion. In fact it has no meaning at all; and all the language of medical books, in relation to the *modus operandi* of medicines, is mere *technical gibberish*.

"Why does ipecacuanha act as an emetic?" It don't act as an emetic—for the simple reason that it does not act at all. How does an emetic act? Answer this if you can (I know you cannot); but do not assume the very thing to be proved. To prove that an emetic *acts*, you

must make it "stay on the stomach." But then will come another difficulty: If it stays on the stomach will it be an emetic?

DR. HURD should have asked, why different drugs occasion different effects? This is what he means, if he means anything. And this is precisely what my theory enables me to explain, and what never was explained, and never will be, on any other theory.

DR. HURD says, truly, that the whole *materia medica* is arranged and classified on the basis of the different effects of different medicines; and he might have gone a little further and told us that the whole medical profession, with the exception of a few physicians of my school, believe and teach that the various articles of the apothecary shop act on the various organs, parts or structures of the living body, in virtue of certain inherent properties, termed "elective" or "selective affinities," which they possess and exercise for such organs, parts, or structures. It is on this theory that medicines are classified into emetics, cathartics, stimulants, narcotics, nervines, cholagogues, diaphoretics, diuretics, &c., as they are supposed to act specifically on the stomach, bowels, blood-vessels, brain, nerves, liver, skin, kidneys, &c. If this doctrine can be shown to be true, I yield the argument in relation to alcohol at once. But if I can show it to be false, it will be the duty of my opponent to confess himself vanquished. Well, this doctrine is false, and I shall prove it, and, therefore, my worthy brother may prepare to succumb with the best grace he can manifest under the circumstances.

Then again, the doctrine of medical books and schools is not the doctrine of nature. This notion of an "affinity" existing between poisons and living matter is not only contrary to common sense, but absurd in science, untrue in philosophy, and false in every sense. And when DR. HURD and the medical profession fully realize the great truth that the relation between living and dead matter is that of antagonism, instead of affinity, they will see that there is a better way of curing diseases than that of poisoning a person because he is sick.

What is affinity? I refer you, most respectfully, to Webster's Dictionary, to the various medical lexicons, and to all works on terminology. DR. HURD has not improved the general misuse of words in changing the phraseology to "take effect." Why do certain drugs "take effect" on certain organs? No wonder that Professor Gregory, of Edinburgh, said to his medical class: "Gentlemen, ninety-nine of every hundred medical facts are medical lies; and medical doctrines are, for the most part, stark, staring nonsense." Dr. Gregory did not mean, nor do I mean, that medical men are liars. O, no! I regard them very much as I do the "generality of mankind in general." We mean that as all of the fundamental premises of what is called medical science are erroneous, the problems which grow out of them are of necessity false also.

The medical profession does not pretend to explain why different drugs occasion different effects. They are content with the seeming fact that it is so. Why ipecac, "operates" on the stomach; why calomel acts on the liver; how jalap purges; wherefore arsenic specially affects the skin; why, how, or wherefore alcohol has an "affinity for the brain," &c., they offer no explanation. All of these essential questions are regarded as profound mysteries, and instead of seeking an elucidation in the laws of organization, medical men have been, so far, content to regard them as without the pale of human comprehension.

I deny that any medicines *act* or "take effect." The phrase "take effect" is only a very awkward substitute for the better word, *act*. And how are different effects (not actions) to be explained? I answer, the living system rejects, resists, and expels all poisonous and injurious substances in the best manner it can, under the circumstances, and with as little wear and tear to the organic structures as possible. Some it expels by vomiting, and they are called emetics; some by purging, and they are termed cathartics; some it sends off through the skin, and they are called diaphoretics, &c. Alcohol, for example, is expelled through the various outlets simultaneously (read experiments of Messrs. Lallemand, Perrin, and Dufor), and is termed a stimulant. The process of stimulation is precisely analogous to that process induced by malaria, and which we diagnose as fever or inflammation. Indeed fever, inflammation, and stimulation are all conditions, and identical in pathological character.

I have made this article too long, perhaps, to be readable, although I have but reached the threshold of the philosophy which underlies our subject. In conclusion, I must again call the attention of DR. HURD to the primary premise. I will answer hereafter, if I have not already, *all* of his questions, and as many more *pertinent* ones as he may be pleased to ask, on condition that he will answer one of mine: "How does alcohol act on the living system?" As he has the affirmative, it belongs to him to do this at the outset, or his case must go by default.

R. T. TRALL, M. D.

HYGIENIC INSTITUTE, Dec. 8, 1862.

ALCOHOLIC MEDICATION.

From the *Philanthropist* of Jan. 8, 1863.

OWING to the pressure of other duties, I was unable last week to notice the very long article of DR. TRALL which appeared in the two previous issues of the *Philanthropist*. And no reasonable man will now expect me to wade through three columns of matter, more than two-thirds of which is entirely irrelevant to the point at issue. The Doctor starts off with a most pathetic appeal to the consciences of those physicians who *profess* temperance and *practice* Alcoholic Medication; and not only charges them with inconsistency and delusion, but as being the chief obstacle in the way of the Temperance Reform. All this is certainly very charitable; and may be regarded by some as very conclusive. It is not difficult, however, to perceive DR. TRALL's object in resorting to such measures to support his cause. He acts very much like other men with a "shrewd eye to business." He seems determined to promulgate his novel theory by some means; and if he fails to make a satisfactory impression upon the "deluded" doctors, and incorrigible "chemico-physiologists," by such logic or scientific argument as he is able to command, he will resort to another expedient—usually an un-failing one—an appeal to the passions and prejudices of the people, and thus invoke to his aid the all-powerful support of the *vox populi*. Such

a course might be regarded in some circles as a very "clever dodge;" but it must be acknowledged a very unfair method of discussing a scientific question, or of meeting the issue involved in the present controversy.

I profess to be a friend and advocate of Temperance, and an unyielding opponent of the drinking usages of society. I believe alcohol to be a poison, and that for men in health, it is never useful, but always injurious. As a medicine, I believe it may be, and often is employed with advantage, as are also other poisons, as opium, arsenic, strychnine, etc. No man with a knowledge of the nature of these substances would recommend their habitual use amongst persons in health. The consequences of such indulgence would be pernicious and fatal as in the case of opium-users in China. But will any man assume that because thousands are annually destroyed by unnatural and excessive indulgence in the use of opium, therefore, as a medicine, it cannot be beneficial in any case; that because, when used to excess by men in health it produces pain, disease, and death; it cannot under any circumstances be used with propriety or advantage to relieve pain, or diminish the suffering of the afflicted and the infirm? There is scarcely a recognized physician in christendom, who has not, at one time or another, in the course of his practice, administered opium in some form; and has done so with his eyes open to the fact, that in itself it is a poison, and that the habitual use of it would be destructive to a healthy constitution. But when given properly as a medicine, he has seen its operation attended with the most satisfactory results, and thus his experience coincides with that of thousands more, in confirming the high value that has long been attached to it as an article of the *Materia Medica*. On precisely the same grounds, do we defend and justify the use of alcohol as a restorative agent. Drank to excess it inflames the stomach and liver; deranges the nervous system, and gives rise to an endless train of diseases. But when employed in medicine it has proved a most valuable agent. It is one of the best and most powerful diffusible stimulants we possess. "It quickens the vital energy when sunk by disease, animates the vital spark when all but extinguished by faintness, produces warmth, raises the pulse, and cheers the spirits. It gives strength in less time than it can be produced by any other substance. For this reason it is often given in low fevers, and diseases of debility." And I assert not only the result of my own experience, but the experience of scores of wiser men, when I say that the use of alcohol, in one form or another, has had the effect of reviving the sinking energies of the system, quickening the appetite, etc., and that, too, when other means had failed.

Such stubborn facts as these, such palpable and evident results occurring continually under the intelligent observation of experienced practitioners, and confirmed by the uniform testimony of thousands of the most candid, skillful, and eminently successful physicians in Europe and America, are worth more to me, than fifty columns of brilliant logic such as DR. TRALL has employed in support of his novel theory. When I am called to a patient laboring under general debility—a loss of appetite, feeble pulse, suspension of vital energy, etc., if I can by the judicious use of iron, bismuth, quinine, and last of all, even alcohol; or by any other class of remedies employed for such purpose—I care not under what head they may be described, whether tonics, stomachics, restoratives, stimulants, or any other name or classification—I

say, if I can succeed by the use of any such substances, in correcting these symptoms, or restoring the disordered function of the vital organism, am I not justified in the employment of them, even though I may not be able to comprehend the precise rationale of their effects, nor explain in a perfectly clear and intelligible manner, their *modus operandi*? If the desired effect is produced—if the appetite is restored, the quality of the vital fluids improved, the strength increased, and the patient is raised, to resume in health his occupation, or calling, I am satisfied. I have done my duty. My conscience is at rest. This with me, is the primary consideration. Every other consideration concerning the matter is secondary to this. Compared with this, all speculations with reference to the “chemico-physiological” aspects of the question, are of little importance. I am content if the result is satisfactory,—if the end justifies the means. It would, of course, be very gratifying to me, if I were capable of outstripping all my predecessors, and of extending my investigations beyond the highest point hitherto attained by scientific observers in this, or any other age. It would certainly place me in a most enviable position if I were able to comprehend and explain what has baffled the researches of the most profound philosophers, physiologists, and therapeutists of every age and clime; and that is precisely what I should arrogate to myself, in an attempt to account for all the results which follow the introduction of inorganic substances into the living system; to explain the *modus operandi* of all remedial agents, or define the rationale of their effects. All this DR. TRALL professes to have accomplished! The goddess of Wisdom—most capricious goddess—has opened her hand and lavished upon him her choicest favors; she has unlocked her treasures, and laid them all at his feet; she has unfolded to him all the deep mysteries of nature, and revealed to him secrets which the world’s wisest and most worthy men have sought and implored in vain! Well may he boast of the proud eminence of his position, and the lofty grandeur of his achievements! No marvel that he should charge his present humble opponent, and “the profession in general” with “worse than ignorance,” and politely designate all that is advanced in opposition to his views as “nonsense,” “delusion,” &c., &c.; and pronounce the “language of medical books, in relation to the *modus operandi* of medicines, mere *technical gibberish!*” No matter of surprise that he glories in the anticipation of a triumphant victory over his present opponent, and affectionately forewarns me to be in readiness to “succumb with the best grace I can manifest under the circumstances.” I fully appreciate the kindness of my worthy brother, and under other circumstances might be induced to act upon his advice; but for the present I beg, most respectfully, to decline any such procedure. Time enough to retire from a contest when one is deprived of all the means of successful resistance, or when, by an overwhelming charge of the enemy, he is thrown *hors de combat*. But, strange to say, nothing of the kind has happened to me during the present campaign. The missiles of my adversary have proved as harmless as the summer’s breeze. He has failed to drive me from a single position which I have yet assumed. And so it seems to have been with him from the beginning. For *ten years* or more his heaviest artillery has been in full play against the whole medical profession, and so far as we can learn, no serious impression has as yet been produced. Most incorrigible dupes of “ignorance,” “error,” and “delusion,” they still cling to their cherished “fallacies,” and ob-

stinately persist in promulgating their "nonsensical" theories, and "technical gibberish," in the midst of all the light which has emanated from the "New York Hygienic Institute," and without so much as turning aside from the even tenor of their way to notice the astonishing discoveries of the profoundly eminent philosophers of this modern school.

The reason why the "profession" has not "succumbed" is readily perceived. It is not because we are all so intensely stupid as to be unable to comprehend the height and breadth of DR. TRALL'S philosophy, or because we are so seriously concerned for the fate of "Othello's occupation;" but because the whole system advanced by DR. TRALL, as the "primary premise" on which it is predicated, bears a palpable absurdity on the very face of it. DR. TRALL holds that inorganic substances cannot act on the living system; that they cannot in any way impart strength, or support vitality. And, therefore, the only effect that can follow their use as a medicine, is that of arousing the living system to action for the purpose of expelling them from the organic domain, and thus waste or diminish its own strength or vitality in the attempt. All this he gravely assumes, takes place whenever inorganic substances are introduced into the living system, and nothing else can happen.

Now we might all be carried away with a theory so plausible as this, if it did not happen to be repudiated by all the evidences of experience and observation. Suppose I am called to a patient suffering from general debility; there is evident exhaustion of the vital energies. There is derangement of function, loss of appetite, &c., &c. Now what am I to do in such a case? Leave the patient to nature? Or endeavor by the employment of such means as my skill or experience may suggest to restore him? The latter course is preferred. But how is it to be effected? If I employ drugs, medicines, they are inorganic, inert; they cannot act, they cannot support strength, or impart vitality; and besides, if I administer them, the system will *act upon them*, and exhaust its remaining energy in its efforts to expel them. Such is the conclusion to which I must inevitably be led by an adherence to DR. TRALL'S philosophy. But my experience and observation teach me a very different thing. I take a patient "in hand" in the reduced state above described. I commence a course of treatment with the use of such medicines as are described under the head of tonics and stimulants; ten to one if alcohol is not mixed up with them in some form. In a few days a marked change is apparent. The symptoms are more favorable. The appetite is improved; pulse becomes stronger; eyes resume their lustre; countenance its natural expression, the vital energies are aroused, and to use the common expression, the patient is "on the mending hand." And this is by no means a solitary case; but one which is constantly recurring under the management of candid and skilful physicians. And what is strange in the matter, and what, in my opinion, completely overthrows the philosophy of DR. TRALL, is, that from the very first, in all such cases, when the patient is in the weakest possible condition, these drugs, alcohol and all, were administered, and instead of the vital energy being exhausted by the efforts of the system to expel them, those energies were constantly improved while the medicines continued to be taken. To deny that such results follow the proper use of medicines in thousands of cases, is to deny what we have seen and know. It rests on evidence as plain and demon-

strative as that the sun shines at noonday, or that the stars glimmer in the heavens at night. What though I may not be able to account in all respects for these results; what though I may be unable to comprehend the peculiar *modus operandi* of these substances; what though I may be in the dark as to the precise manner in which these medicines operate; or as to whether the iron *acts* on the vital fluids, or the vital fluids *act* on the iron; whether the alcohol acts on the system, or the system on the alcohol, or whether they mutually react on each other? I know that the effects are produced, and I know that they are the result of action. And, as I explained in a previous article, *it is only reasonable to trace these effects to the action of the agent that produced them*

FREDERICTON, January 6, 1863.

J. C. HURD.

ALCOHOLIC MEDICATION

From the Philanthropist of Jan. 15, 1863.

WE feel not a little embarrassment in reference to the controversy which has been proceeding in our columns on the above subject. It has assumed dimensions, and taken a direction which we did not expect; and we very much fear if it should be continued by the respective controversialists, that it will not advance the temperance cause. Although not a medical practitioner, we claim to be competent to form a common sense opinion upon the question at issue, and we are sorry to be compelled to say that while a great deal of the difference between the doctors is mere *play upon words*, the heat of the controversy has led them both to the use of a vast number of irrelevant words, and to the utterance of extreme sentiments, which we think they would scarcely like to pursue to their legitimate results. If we could believe all DR. TRALL'S views, we certainly would entirely abandon the whole faculty to deserved contempt; and if we could hold with DR. HURD, we would trouble the world no more on the Total Abstinence question. We mean, in both cases, to refer only to what they have written.

DR. HURD, in his last communication, has also given us a very unpleasant impression of the glorious uncertainty of medical practice; and indeed we quite agree with him on that point. It is too true that a great deal of the treatment of suffering humanity is mere experiment, and without assuming the responsibility of an adviser, we cannot but think that if people would leave nature, even when diseased, to its own recuperative energies, there would be fewer fatal results from the common diseases which prevail.

As for the administration of alcohol to persons in a weakly condition, resulting from whatever cause, we don't believe in it, although we have submitted to it occasionally, in the cases of friends, because we would not interfere with the responsibility of the doctor. But we have personally known more than one instance in which the patient himself stoutly refused to accept the prescription, and that after being assured that he must take it or die, and these parties are now alive and well without the aid of alcohol. We are compelled to say that we cannot publish anything more on the subject at present, beyond half a column at a time.—EDITOR.

ALCOHOLIC MEDICATION.

From the *Philanthropist* of Feb. 5, 1863.

[THIS controversy, the publication of which has been the theme of much comment, and diversity of opinion, has been, as our readers will perceive, reopened in the present number, by the publication of a portion of another letter from DR. TRALL. We have been induced to consent to this by the representations and requests of some of our subscribers. We know not whether good or evil is to arise out of it, but having yielded so far we have no objection to its proceeding on both sides. DR. TRALL, although only attaining equality with his antagonist in the number of communications, by the publication of this letter, is certainly very far in advance in quantity of matter. We need hardly say that DR. HURD will have the privilege of our columns co-extensively, if he chooses to avail himself of it.

It has been hinted to us that we are to be made the subject of a prosecution or persecution, for some offence, not clearly specified, growing out of this matter, before the approaching session of the Grand Division. We can only say, in reference to this, that if there be in human minds a capability of utter indifference on any subject of a personal nature, that climax of unconcern is ours. We have not given any cause of offence. We claim no more than man's inalienable right to think, for ourself, and to speak or write as we think, and so long as we think, speak, and write at all, so long will we do it, independently and unequivocally.—EDITOR.]

DR. TRALL TO DR. HURD.

In the *Philanthropist* of January 8th, DR. HURD devotes a column and a half to me and only a sentence and a half to the question. I regret that he has not employed his pen more worthily. I do not feel myself entitled to such "distinguished consideration," while the real issue is deserving of all the attention he will be able to bestow upon it. After discussing matters and things in general, and his humble opponent in particular, through a long article, he reaches the point at which he should have commenced; but then, instead of recommencing at the beginning, he makes the fortunate discovery that his article is "already too long," and so finds it very convenient to "come abruptly to a close." As he signifies no disposition to say anything further, I am left in doubt whether I am to regard the article before me as a finality on his part. I hope not, as DR. HURD seems to be entirely familiar with the literature and theories of his profession, as these are taught in his books and schools, and capable of sustaining his side of the controversy as well as such an erroneous doctrine can be sustained by any one. I should be grieved if he should now retire from the field, and thus deprive me of an opportunity for advancing a great and important truth. I had flattered myself that the real battle was yet to be fought; that we had thus far done little more than throw out our pickets, skirmish along the borders, unmask our respective batteries, and ascertain each other's positions. And I shall be very sorry if this debate, commenced with such a flourish of trumpets on both sides, and with so confident predictions of victory by each of us, shall come to so inglorious a ter-

mination. I desire a "death or victory" contest. If my positions are wrong I want to have them demolished. If DR. HURD'S positions are false I wish to annihilate them.

The chief difficulty in all discussions of this kind, is in want of precision in the definition of technical words and phrases, or in not having a clear understanding of premises. No argument of this nature can be either scientific or profitable, unless the parties thereto distinctly state their premises and rigidly adhere to them. Thus far I have confined myself mainly to statements with brief illustrations of premises and principles, and explanations of the grounds on which I proposed to sustain the propositions which I have advanced. As my premises are new and "novel," never having been written in medical books nor taught in medical schools, and being, moreover, in direct opposition to the general belief, it was due to my opponent that I should apprise him of them, before asking him to bring forward his affirmative argument. This I have done, fairly, frankly, fully, truly. And now what does DR. HURD propose to do about it? He asks me no more questions. He does not attempt to answer my one question. Instead of defending any one of his own positions, or controverting a single one of mine, he very "abruptly" *skedaddles*.

As I anticipated when he brought forward the *modus operandi* objection, no sooner did I silence that battery by showing that his formidable phrases were only "technical gibberish," than he abandons teetotally the scientific argument and entrenches himself behind the fortifications of "observations and experience," from which secure retreat he hurls at me certain epithets and insinuations which, to say the least, do himself injustice. Such is not unfrequently the last desperate expedient of a discomfited party who is "defeated but not subdued," conquered but unwilling to "own up." But I shall pursue this discussion into the very citadel of my opponent's "observation and experience," where if he does not "surrender at discretion," I shall storm his stronghold.

I am accused of having a "shrewd eye to business," and of appealing to the "passions and prejudices" of the people. This reminds me of the fable of the wolf and the lamb. Both were drinking at the brooklet, when the wolf accused the lamb of muddying the water. "This cannot be," said the lamb, "for, look you! I am lower down the stream, and the water runs from you to me, so that *you* must muddy the water which *I* have to drink." "Nobody shall say the opposite to what I say," replied the wolf. "He may have told the truth, but he shall die for his presumption." Is there a rumseller this side of pandemonium, or a worse place, who would take my side of the argument? Did DR. HURD ever hear of a rumseller being opposed to alcoholic medication? Is there "a devil with devil damned" in the infernal regions, or a fiend in human or inhuman shape, on the earth, who would not side with DR. HURD in this controversy? DR. HURD is "opposed to the drinking usages of society," so is the rumseller professedly. But the rumseller declares and the medical profession teaches that the *proper use of rum* is healthful, restorative, remedial, refreshing, an indispensable stimulus, a supporter of vitality, a dietetic beverage, a respiratory food, &c., and so he sells it to be *drank as a medicine*. The drug-shop is the parent of the dram-shop. The temperance physician is often the patron of the groggery. DR. HURD must be strangely oblivious of history, and unaccountant of "society as now constituted," if he does not know that interest, passion, and prejudice are all on his side. Shrewd business men

the world over, gratify their greed of gold, and subserve their selfish purposes best by deferring to public sentiment, not in opposing it; by pandering to morbid appetites, depraved instincts, perverted propensities, and blind prejudices of the people, not in reforming them. Where one man can earn necessary bread in teaching and practicing the total abstinence from intoxicating drinks, or in organizing anti-tobacco associations, a hundred will get rich in selling liquor and tobacco. For four thousand years the world has been acquiring a more general and more inveterate passion for alcoholic drink; and for many centuries the medical profession has been mis-educating the people into the belief that alcohol is not only a good but an indispensable medicine. Alcohol is mingled with more than one hundred and fifty officinal preparations of the pharmacopœias; in a variety of cordials, syrups, tinctures, panaceas, etc., etc., it is free to all classes of invalids, and to infants in their cradles; and I verily believe the doctors are doing ten times as much as the dram-shops in engendering the appetite for intoxicating liquor. No wonder that staunch advocate of temperance, the Dean of Carlisle, says, "generally speaking, the doctors are no great friends of ours." No wonder J. Higginbottom, F. R. S., said in a paper, lately read before the British Medical Association: "During my long practice I have never known a disease cured by alcohol. On the contrary, it is the most terrible producer of disease, and may be considered the bane of medicine and the seed of disease."

In the large meeting of the International Temperance convention, in Exeter Hall, London, September 3, 1862, a venerable, white-haired clergyman, of three score years and ten, made a most earnest and touching appeal to his clerical brethren, to give the influence of their names and positions to the Temperance Cause. He plead the cause of humanity, as one might the life of a loved one, of those who had the power, and only lacked the disposition, to save. He assured his brethren that if their united voice could be had in favor of Total Abstinence, the tide of dissipation would be stayed at once, and the world at once relieved from three-fourths of its miseries and crimes, its diseases and deaths. He told them plainly, that they had the power to insure the speedy triumph of the Temperance Cause all over the world, and that, if they would exercise this power, the work would soon be done. And why will they not do it? Alas! they cannot. And why can they not do it? Because the medical profession has taught them that alcohol is a valuable medicine, and an indispensable restorative, a supporter of vitality; and that when they are sick, weak, fatigued, and exhausted, disordered, alcohol, in the language of Dr. HURD, "has the effect of reviving the sinking energies of the system." And so we have the moral weight of the clerical added to the intellectual weight of the medical profession, *against* the Temperance Cause. The clergy are right. If they believe what the doctors teach, they can not and should not take sides with the teetotalers. And so thoroughly is this doctrine, that alcohol is, in some mysterious and incomprehensible manner, a supporter of vitality, false though it is, ingrained with the masses of the people, high and low, educated and illiterate, that the few who teach the opposite doctrine, true though it be, are generally stigmatized as crazy fanatics, visionary enthusiasts, or "mad philosophers." Says a writer in the very number of the *Philanthropist* in which Dr. HURD's last article appears—"Nay, we have sufficient evidence continually before us to show, that he who undertakes to propel, in these days, the

car of Temperance, has a herculean task." Well may the task be herculean, when the judgment of the medical profession, and the conscience of the clerical profession, are practically against it. And surely the person who undertakes to "propel" the reform against alcoholic medication, as well as against alcoholic beverages, has a doubly-herculean task before him.

While ten persons agree with the opinions which I entertain and advocate, ten thousand subscribe to the doctrines which Dr. HURD teaches and practices. To get power, position, influence, wealth, and this world's applause, one must be on the popular side. And this certainly is not my side. A few years ago, I was in a minority of one, as was Noah in the days of the flood. Yet Noah was right. Who does not know the fate of reformers, especially those who advance theories which are revolutionary in relation to business pursuits and personal distinctions, and subversive of established dogmas and confirmed habits. They have ever been the victims, not the beneficiaries, of "interest, fashion, and prejudice." Nor is the medical profession any exception to this common infirmity of human nature. When HARVEY discovered the circulation of the blood—a problem, whose solution his predecessors had sought unavailingly for seventeen hundred years—he was vilified and persecuted because his discoveries did not agree with preconceived opinions; and it is recorded in medical history, that not a single physician who was more than forty years of age, would ever, to his dying day, admit the truth of HARVEY'S discovery. (I hope my worthy brother is not on the conservative side of forty.) When PRIESSNITZ, the Silesian peasant, announced the doctrine that the true method of curing diseases was in getting "bad stuff" out of the system, and not by putting poisons into it, his "novel" notion was not controverted, but he was persecuted and imprisoned by the medical profession. When Dr. GILMAN, of New Hampshire, a few years since, in an article published in the *Boston Medical and Surgical Journal*, proved that alcoholic medicine, so far from imparting vitality to patients in "low fevers and cases of debility," actually aroused vital resistance, and *wasted* the vital energies, and thus retarded or endangered, rather than promoted, the cure, his professional brethren did not seriously argue against his doctrine, but insinuated that if he persisted in such heresies he would be denounced as a quack. And although it is not precisely relevant, I cannot quite resist the temptation of informing Dr. HURD, that a few years ago, the Medical Association of the United States, assembled in National Convention at St. Louis, Mo., and when they sat down to "The feast of reason and the flow of soul," the table was graced, or disgraced, with *forty kinds* of alcoholic liquor! Would these "conservators of the public health" have done this, if they had not believed that in cases of fever, debility, bodily fatigue, mental labor, over-excitement, under-excitement, heat, cold, exercise, rest, work, play, conviviality, sickness, or health, alcohol was useful to take, either as victuals, drink, or medicine? Professor WOOD, of New York, in a clinic before his medical class not long since, recommended for a feeble, scrofulous child, "wine, porter, ale, gin, and brandy." "The chief indication," said Dr. WOOD, "is to make good, pure blood." And in relation to the alcoholic part of his prescription, the Doctor remarked, "these youngsters will soon get to love it." Would Dr. WOOD have sown the seeds of drunkenness in that young child, if he had not regarded alcohol as a supporter of vitality? I wonder if any one ever recovered

from sickness before alcohol was known? The time may come when Dr. HURD will look with horror, as I do now, on this awful delusion which mistakes stimulation, inflammation, fever, waste, disease, and death, for vitality, energy, functional duty, sustenance, health, and life. This mistake is the parent source of all the debauchery and dissipation in the world, and of all the mal-practice in the medical profession, and has sent more persons to premature graves, than have war, pestilence, and famine, combined.

But where are we in this discussion? I claim to have ascertained a scientific truth, which has baffled the investigations of medical men, for three thousand years. I deem the recognition of this truth as of vast importance to mankind. I regard this truth as the only scientific basis of temperance, and as vital to its ultimate success. I profess my willingness to explain to any person, sincerely desirous of understanding it, and to maintain this truth against all that can be urged by the medical profession, and to meet all possible objections and criticisms which all the scientific men of all the earth can allege against it. Is there anything blameworthy in this? How can I make a new truth known, except by proclaiming it? I have not patented this truth. I do not propose to sell it. I am only anxious that people shall have it, because it will benefit them. I want medical men to adopt it, because it will enable them to be vastly more successful in the treatment of diseases, and because its application would, under their auspices, speedily exterminate the rum-fiend from the earth. Is it not passing strange, that Dr. HURD, instead of calling on me for more information, or for the explanation, exerts all his talent and ingenuity, to mystify the subject and evade the truth? All the desire I have in relation to this truth, is to give it away. Its reception by the people, I am well aware, and perhaps Dr. HURD begins to see, will be very damaging to our professional business. But this sacrifice, if sacrifice it be, we ought to make for the public good. Does society exist for the benefit of the medical profession, or does the medical profession exist for the benefit of society?

I have said that all of the fundamental problems of the medical profession are false, and necessarily false, for the reason that the primary premise on which they are predicated is erroneous. The medical profession, as I have said, teaches a false doctrine of the nature of disease—a false doctrine of the *modus operandi* of medicines—a false doctrine of vitality, and a false doctrine of the law of cure. Why? Because its first premise, on which this doctrine is predicated, is false. What is this first premise? It is the assumption, that in the relation between living and dead matter, the dead matter acts on the living. The truth is exactly the contrary. The living matter acts on the dead. This is my discovery. If it was wrong in me to make it, I can only apologize, with the girl in the play—"I could n't help it." And in the matter of announcing it to the world, and commending it to the notice of medical and scientific men, "I could not help it if I would, and I would not if I could." I should feel self-condemned, as recreant to God, and false to humanity, did I not seek, in all practicable ways, to commend this great and saving truth to the attention of the human race, and especially to the medical profession, whose influence on the temperance bearing of this subject, *pro or con*, is well nigh omnipotent.

My discovery is either true or false. If true, all of the fundamental doctrines of the so-called medical science are false. If my discovery is

not true, why does not Dr. HURD show its falsity, or acknowledge he cannot? This discussion commenced with Dr. HURD's attempt to show that my positions were "untenable." But in his last article, he boasts that I have not "driven him from any of his positions." True, I have not. The moment I apprise him how I am going to attack any of his positions, he retreats on the "double quick," so that I have no opportunity to drive him; well,—

"He that fights and runs away,
May live to fight another day."

If my discovery enables me to explain the effects of alcohol, and of all other poisons or medicines, while the medical profession (Dr. HURD included) cannot, on the common theories, explain any of the effects of alcohol, nor those of any other medicine or poison, then it follows as a logical sequence, that all the language employed by medical writers (Dr. HURD not excepted) in treating of their *modus operandi*, is "technical gibberish." And all of the specious pleading and pragmatical prevarication of my learned friend cannot make it otherwise.

Why should not I call things by their right names? Why should my brother M. D. be offended because I speak truth in plain words? I do not prove his language to be nonsensical, in order to ridicule him, but to show the error of his premises. I do not show that his language is ridiculous, to impeach his motives, capacity, or intelligence, but to demonstrate the absurdity of the positions from which he reasons. I do not dispute his conscientiousness, when I say that Alcoholic Medication is the foster-parent of rumselling. I do not call him an ignoramus, when I charge the profession with being worse than ignorant on the questions in issue; I only mean, *his system is erroneous*. If he were simply ignorant, I could write the truth I wish to establish, on his mind at once. But how to dispossess his mind of inborn prejudices and venerable falsities, is the difficulty. It is not his ignorance, but his error which is worse, (as a lie is worse than nothing at all) that causes him, instead of hailing the advent of the new truth I have announced, with exceeding joy, to resist it with fossilized stubbornness, and oppose it by all the ingenious expedients which men resort to when they wish to "make the worse appear the better reason."

And now the question arises, "are the effects of alcohol useful or injurious, when it is employed as a medicine?" Cannot the reader see at a glance, that the answer to this question must depend entirely on the rationale of the *modus operandi* of alcohol? Before we can understand whether the effects of alcohol are remedial, or otherwise, we must know what the action is. This, I repeat, is the issue between me and Dr. HURD; and this, I repeat, is what he should settle before he undertakes anything further; and this, I repeat, is the point he runs away from continually.

I cannot give him credit for fairness or candor, when he says: "If I can succeed, by the use of such substances, (iron, bismuth, quinine, alcohol, etc.) in restoring the diseased functions of the vital organism, am I not justified in the employment of them, even though I may not be able to comprehend the precise rationale of the effects, or to explain in a perfectly clear and intelligible manner their *modus operandi*?"

Certainly you are, and you would be criminal if you did not. But in the sentence I have quoted, you have both begged the question and

misrepresented the facts. Whether alcohol does or does not assist in restoring the disordered functions is the very point in issue—the thing to be proved. He assumes that alcohol is a restorative, and then asks if he is not justified in using it. He might as well assume that a stone is bread, and then ask me if he is not justified in feeding it to a hungry person. The language of the medical text-books, and of the living teachers, is:—"Of the *modus operandi* of medicines we know nothing." Dr. HURD's perversion is, "if I cannot comprehend the precise rationale, nor explain in a perfectly clear manner." Such subterfuges evince the ingenuity of the second-rate attorney, but are not in character with the rigid reasoning and stern truthfulness of the man of science.

The question before us is one of principle, not of detail. We are wide as the poles apart. One of us must be wrong. The language of Dr. HURD implies the falsity he dare not openly assert. On the theory entertained by the medical profession, and advocated by Dr. HURD, that drugs and diseases act on the vital organism, no one can explain the essential nature of any disease, nor the effects of any medicine. On the theory which I advance, which I claim as a discovery, and which Dr. HURD is pleased to compliment ironically as "novel," "astounding," etc., (was there ever a discovery that was not novel, or a new truth that was not astounding to somebody?) that drugs, diseases, and the causes of disease, do not act on the vital organism at all, but that, on the contrary, the vital organism acts on the drugs, and on the causes of disease, and that disease itself is vital action, I can explain the essential nature of all diseases, and the *modus operandi* of all medicines. Is not here a pretty considerable of a difference? Is there not something in this issue worth discussion, and worthy of the profoundest investigation? My statements, if true, are of incalculable importance, for they must revolutionize the popular physiology, pathology, and therapeutics. If false, they are the most preposterous humbuggery that was ever uttered by mortal man. If Dr. HURD wants more information, more facts, statistics, principles, or illustrations of the truth of my "novel," and plausible theory, I will very cheerfully furnish him with any quantity; for all of the laws of nature, rightly understood, all of the operations of the universe, correctly comprehended, and all of the data of science, truly interpreted, prove all of my positions, and disprove every one of his.

The medical profession has devoted ages of time, and expended a world of talent, in fruitless attempts to solve the problems we are now debating. I believe, indeed I *know*, that I have solved them; and why should I not say so? And why should not Dr. HURD rejoice at my discovery, especially when I assure him that its practical recognition by the temperance leaders would ensure the speedy triumph of their cause, while its adoption by the medical profession would, in the practice of the Healing Art, render the treatment of the most prevalent and fatal diseases comparatively simple, safe, intelligible, inexpensive, and successful. I challenge any man to show that the theoretical recognition and practical application of my discovery would work any evil to any human being, unless damaging the business of the medical profession be an evil.

But what of "observation and experience?" This is Dr. HURD's last refuge. But I shall "drive" him from that before I have done with him, if he is not too fleet-footed in running. I too have had ex

perience; and I have been observing the philosophy of our subject for twenty years, while DR. HURD never had his attention called to it until a few weeks ago. If he wishes to introduce in evidence the experience of the whole medical profession, I am ready to "try conclusions" on the issue. But as he has thus far only introduced his own, and that only as broad and sweeping statements without rule, law, principle, or particulars, it will for the present be sufficient for me to offset his experience with mine. And here it is: For several years after graduating as an M. D. I prescribed alcoholic stimulants in "low fevers and cases of debility." I lost about the usual proportion of patients; that is to say, of mild cases, one in fifteen or twenty, and of severe cases, one in four or five. In due time I became skeptical as to the benefit of stimulants, used them less, and had better success. Finally, I came to the same conclusion that Sir JOHN FORBES, M. D., F. R. S., arrived at by a somewhat different process of reasoning, viz., that "more patients recover in spite of the medicine, than with its assistance." It is now more than fifteen years since I prescribed a particle of stimulus of any kind, and although I have treated hundreds of cases of all the febrile diseases incident to New York and its vicinity, including measles, scarlatina, erysipelas, small-pox, remittent, typhus, typhoid, congestive, and ship fevers, pneumonia, influenza, diphtheria, childbed fever, dysentery, etc., etc., I have not lost one. And this statement I have repeatedly published in this city, where the facts, if otherwise than as I represent, can be easily ascertained.

Can Dr. HURD, with his use of stimulants, show a better record? Can any advocate of alcoholic medication, from HIPPOCRATES to HURD, boast of equal success?

I do not, however, regard either his experience or mine as conclusive, nor as very important. Experience may prove or disprove anything or nothing, according to the rule by which it is interpreted. Persons may be sick, take alcohol, and recover health, and yet the alcohol hinder instead of help the cure. A child may take a small quantity of poison into its system every day (nearly all children do), and grow up to maturity. But would any one suppose that the poison assisted in the process of growth and development? Common sense, which is better than false science, would say that the child grew in spite of the poison, but would have a better development if he had not taken it. I know a lawyer in this city who has used tobacco since five years of age. It did not kill him. It did not prevent his growing up to manhood—to the ordinary size. But he has less vitality, and will die many years sooner, because he has expended so much of the life-force in expelling the poisonous tobacco. In October last, I heard the medical members of the British Scientific Association, in one of the halls of the seventeen colleges in Cambridge, England, gravely argue that cigar-smoking was a wholesome performance! Could any man come to such a conclusion, let his observation and experience be what it might, without reasoning from Dr. HURD's stand-point? The principle which underlies this discussion enables us to understand why it is that all who drink intoxicating liquor do not immediately become drunkards, and that all who take alcoholic medicine are not killed outright, although they do not recover so soon nor so well as they would have done if the alcohol had been emptied into the sea, instead of the human stomach.

There is an easy and effectual method of settling this muddle of experience. Let Dr. HURD state his case; name the disease; describe the leading symptoms; give a list of all the remedies he employs, including, of course, the alcoholic, and state the result. When Dr. HURD will do this the subject will be fairly before us, and I will attend to my side of the argument.

R. T. TRALL, M. D.

NEW YORK, January 22, 1863.

ALCOHOLIC MEDICATION.

From the *Philanthropist* of Feb. 19, 26, 1863.

If the readers of the *Philanthropist* have been as much edified as I have been amused by the perusal of DR. TRALL'S last, longest, and least attempt to support his singularly fanciful theory, they will certainly not begrudge the time and effort devoted to it. Almost the entire article consists in a vehement repetition of ideas advanced—not supported—in former communications. Utterly failing in the “scientific argument,” unable to bring forward a single new idea, or to support by a semblance of reasoning, the rickety fabric tottering in the region of his fertile imagination, he again has recourse to his old fort—his stronghold in the day of trouble—his only available means of saving his craft from ruin. Instead of doing himself what he so imperatively demands of me—meeting the issue “fairly and squarely with no dodging,” he abandons the “scientific argument,” “dodges” the whole question involved in the controversy, and sets up an imploring appeal for public sympathy. And most ingeniously does he employ this potent and ever-efficacious weapon. How industriously does he strive to awaken some tender emotion in the minds of the people at large, by representing himself as an injured and persecuted man, almost a martyr to the cause of truth and humanity. He has discovered and exposed the pernicious errors of the medical profession, and warned the people against these blinded dupes of “technical gibberish,” these perverse and obstinate disciples of HIPPOCRATES, these wily dispensers of physic, who

Resort to the trick of deceiving the sick,
With their poisonous powders and pills,
Cathartics, emetics, and diaphoretics,
Hydragryrum, jalap, and pills!

But alas! the people have not heeded his warnings; they have not received or believed his doctrines, and consequently they have not spread his fame abroad, or awarded the praise which he thinks is due to his self-sacrificing and philanthropic efforts to protect them from the impositions of medical practitioners. This, doubtless, is very hard—exceedingly ungrateful. But yet, indefatigable man, he will not give up in despair; he will still pursue his cherished object; and to gain that, he must win the people to his side. If that can be accomplished he will be all right, “Othello's occupation,” will then be secure. What would he care for the doctors, or their “technical gibberish,” if the *people* were

with him? His position would then be secure, his triumph complete, his fortune achieved! Oh yes, to him the voice of the people is every thing:—"Vox populi, vox Dei." And to accomplish an object so desirable, he will resort to any means in his power. He will even endeavor to disparage his opponent by representing him in the worst possible light, by imputing the most unworthy motives, and by placing him on a level with the meanest and basest of characters. And he would expose all this in a still more glaring light, by exhibiting it in contrast with his own unsophisticated purity, innocence, and humanity. He would ransack the archives of fabled antiquity to strengthen his imploring appeal, and by a far-fetched and incomprehensible illustration, endeavor to appropriate to himself the quiet and amiable qualities of the "lamb"—praiseworthy, immaculate emblem of innocence—and attribute to his opponent the viciousness and perfidy of the "wolf." He would have the world believe, that as regards himself, he is entirely disinterested, that his efforts have been put forth solely for the benefit of others, that on his banners are inscribed in glowing capitals, *Pro Bono Publico*, and with all this he is still alone. Nobody seems ready to adopt his views, or aid his projects; and there is not even "a rumseller this side of pandemonium, or a worse place, who will take his side of the argument, or assist him in opposing alcoholic medication." But his opponent—oh horrible! What a position he has taken! How absurd, inconsistent, and dangerous to the well-being of society! He is the victim of an "awful delusion," on which DR. TRALL looks with "horror," and pronounces "the parent source of all the debauchery in the world," and "of all the mal-practice in the medical profession." And to put the climax on the whole, to complete the full and shocking infamy into which I have fallen, he politely and charitably insinuates that there is not "a devil in the infernal regions, or a fiend in human or inhuman shape on earth, who would not side with me in this controversy! Now, if this does not produce a profound impression upon the minds of the people, it is difficult to imagine anything that will. If this does not procure him the victory which he so confidently anticipated from the first, and about which he has so loudly and frequently boasted, he will be likely to abandon the field in despair.

For myself, I care not a rush for DR. TRALL'S appeals for sympathy. If he feels uncomfortable, he has himself only to blame. Let him acknowledge and abandon his errors, and all will be right. But if he persists in promulgating them, he must not be surprised if he is combated, and sometimes even with his own weapons. I would not have written in the style I have done, if he had not forced me into it. I have endeavored throughout this controversy to avoid everything offensive, and to treat my opponent with due respect. He would have done himself and his subject far more justice if he had pursued the same course. And when he attempts to impute motives, and places me on a level with "devils," "fiends," and "rumsellers," he must afford a little stronger proof that his own hands are quite pure. With what a "flourish of trumpets" he proclaims his fancied victory, and exults in the delusion that his adversary has retired from the contest, bearing on his stricken colors the humiliating inscription "*skedaddle!*" But he will awake from his fond dream of conquest to find that,

The man he thought had run away,
Has quite another part to play;
He scorns the timid, sleepy *addle*,
Who fears to fight, or cry *skedaddle!*

DR. TRALL takes a great deal for granted. His opinions he regards as infallible; his reasoning all sound and conclusive; his illustrations apposite and convincing. All that is opposed to his views he sets down as delusion and false assumption, and all the teachings of medical books he styles "technical gibberish." The profession he thinks is in a "sad muddle" in reference to the *modus operandi* of drugs in general, and of alcohol in particular. We affirm that it *acts*, but we know not how. He declares it does not act because it cannot, and illustrates and enforces his view by a series of striking analogies. In one of the Paris theatres a boa constrictor swallows a bed blanket. The poor creature writhes and struggles in great agony to get rid of it. Strange to say, he cannot digest it, and therefore he must eject it. An action ensues; but the effect is produced by the action of the serpent on the blanket, and not by the action of the blanket on the serpent. And Dr. TRALL "marvels" that I cannot see the force of all this. He wonders that I cannot perceive the analogy between a bed blanket and alcohol. And to overcome my obtuseness he introduces another, which he thinks must make the matter quite clear to my understanding. A stone—"as big as a piece of chalk"—is forced into the stomach of a dog. This, after an unsuccessful effort to digest it, must be eliminated by a desperate struggle on the part of the afflicted animal. The stone *could not act on the dog*, and so the dog must act on the stone to expel it. But how "passing strange," after all, that I cannot yet perceive the force of Dr. TRALL'S illustrations. I am quite as unable to see the analogy between the stone and alcohol as between the blanket and alcohol. What perplexes me in the matter is, that the one is a solid, which the acids of the stomach have no power to dissolve, the other is a liquid. The one is a heavy, unyielding mass, the other is volatile and diffusible. The one remains on the stomach, acting as a local irritant, the other is almost instantly absorbed, and carried by the blood to the most remote parts of the system. Strange indeed that I cannot see the analogy between them! I do not claim for alcohol or any other drug the power to act in the sense in which it is applied to a living animal—a "dog" or a "boa constrictor." Unlike these animals, it is not endowed with a principle of organic life. I employ and understand the term in a strictly scientific sense, and using it in such sense, I am justified by the ordinary use of language. Words may have various meanings according to the subjects to which they are applied. They are the proper vehicles of thought—the only means of expressing ideas and enforcing principles. Take from them their true and legitimate meaning—the signification which custom has given them—and you convert them into an unintelligible jargon, and scientific language becomes mere "technical gibberish." To describe certain results, we employ the terms which are most expressive or best adapted to convey a clear and well-defined conception of the subject under discussion. In how many cases do we apply the term *act* to inorganic substances, as more significant and expressive than any other which could be employed? When a stone is washed or worn on the beach, we ascribe the result to the *action of the water*. When trees wave in the forest, or houses are hurled from their foundations, we ascribe it to the *action of the wind*. When an effect is produced by an agent, we call it an *active agent*, it may be organic or inorganic. When a remedy applied is efficacious, we give it the name of an *active remedy*. The term is the most simple, the most expressive, and hence the most appropriate. I can see no reason why

we may not with equal propriety, apply the term to alcohol. Immediately on its introduction into the living system certain well-known results follow, and that as the effects of the *action* of the alcohol—this is the primary cause, and it is absurd to attribute it to any other. Dr. TRALL ascribes it to the “action of the living system on the alcohol,” and thus mistakes the effect for the cause. The system would not have acted if the alcohol had not been introduced into it; but having been diffused through the system, it acts as an excitant or stimulant to its vital energies, suspended by disease or exhaustion. It acts on the system thus reduced, somewhat as the spur does upon the jaded horse, or the rod on the stubborn boy. Both are aroused amazingly by the application; but we need scarcely stop to enquire whether the spur acts on the horse, or the horse on the spur; the rod on the boy, or the boy on the rod. Equally clear is the fact that the results which follow the introduction of alcohol into the system are due to the primary and specific action of the alcohol itself.

No doubt many others besides the *Carleton Sentinel* question the prudence of the Grand Worthy Patriarch in presenting himself as the “champion” of alcoholic medication. But I cannot help what others think of the position I have assumed in this controversy. I cannot sacrifice principle, or deny the truth to please anybody, or to serve any cause. For any other explanation of my conduct, I, most respectfully, refer my friends to the columns of the *Philanthropist* in which I have given my only reasons for the course I have pursued.

But to the subject. “It is extremely difficult,” says Dr. HOOPER, “to determine, with accuracy and precision, the mode in which any agent affects the bodily tissues and functions, but experience and experiment, induction and deduction, chemistry and physiology, enable us, in many cases, to arrive at the truth, or an approximation to it, and, consequently, there is at the present day a tolerably constant and unanimous belief respecting the *modus operandi* of a considerable number of dietetical and medicinal agents.” Has nothing, therefore, been ascertained with regard to the action of alcohol on the human system? Has no light been thrown upon the subject? Have no just or satisfactory conclusions been arrived at after all the labor that has been expended upon it by the wise and learned for hundreds of years past? Are we all in delusion here, having no rational principles to guide us in the use of alcohol in any form or quantity as a medicine? If Dr. TRALL is correct, such is precisely our position. But a very different thing is revealed by some of the ablest writers on the subject. Dr. HOOPER says: “Alcohol appears to seek out and fix upon *nervous* matter and to act directly and especially upon it, just as other agents localize themselves in particular organs.” Dr. TODD regards alcohol as *food* to nervous matter, and affirms that it acts on the nerve-cell and fibre *directly*. “So far, says TODD, “as it influences the nervous system, the action of alcohol is that of a *stimulant*—an unfortunate term, indicating a distinction without a difference; other forms of food are likewise stimulant, but as they do not act directly and quickly upon the nervous system, their exciting properties are not so apparent. In like manner, alcohol possesses its stimulating property, because it is a form of aliment appropriate to the *direct nourishment* of the nervous system, and to its preservation; its special adaptation to this system gives it an immediate exciting power superior to any other kind of food.” Such are the effects of alcohol, and such its action, according to Dr. Todd, only

when given in *small quantities*, as a medicine. "When taken in excess," he says, "it does not produce inflammation of any organ, but its bad effects are shown in the nervous system; it damages the nutrition of the nervous matter, poisons the nerve-fiber and nerve-cell, and produces anæmia of the brain." "The moderate, and proper use of alcohol," he contends, "repairs and invigorates the nervous system, that it is its proper pabulum in the same sense as albumen is the appropriate pabulum of the muscular tissue." "If given beyond what is required in the treatment of disease," he says, it will be exhaled; and perceptible in the breath; not so if the quantity be proportioned to the wants of the system."

The excessive use of alcohol weakens, depresses, and wastes the system; but that is no argument against its employment in small quantities as a medicine. "Tea, coffee, exercise, study, sleep, etc.," says Dr. HOOPER, "stimulate, strengthen, nourish, repair, within certain limits, the nervous tissue, but beyond those limits, they weaken, depress, and waste it." Why should alcohol form an exception? Dr. TRALL would agree with Dr. CARPENTER, who argues that "alcohol cannot ultimately benefit nervous matter, because it is incapable of regenerating it—*i. e.*, of becoming its proper pabulum, or food." But neither of them will question the benefit of moderate study, exercise, sleep, or perhaps, of tea, or coffee, and yet it cannot be supposed that any one of them, or the whole combined, can *per se*, and directly contribute a particle of matter to the brain and nerves. "In studying the physiological action of alcohol on the human body," says one of the writers above quoted, "we must never forget that it is one of that large class of agents whose influence varies, not simply in amount, but in kind or quality, according to the quantity administered; so that the effects of a large dose will be, not a mere *multiple* of those of a small one, but of a totally different character. In some few cases, as those of lying and stealing, for instance, quantitative difference does not produce qualitative difference; but in the majority of cases it does. A certain temperature produces ice—a higher one, steam; a certain weight bends a spring—a heavier one breaks it; a short mountain walk invigorates the body—a long one weakens it; a few hours' study may *innervate* the brain—a few hours more will *enervate* it. And may not, also, a certain amount of alcohol, tea, coffee, etc., strengthen the nervous system, and a larger one weaken it? Or is alcohol mischievous in *all* proportions, whilst tea, coffee, study, exercise, etc., are not so? Cause must be shown why alcohol is to be excluded from the class of agents which do good in moderation, and harm in excess." "The end and aim of all food is *force*. Hence, study, exercise, fresh air, etc., may be regarded as food, for they all give force, though they probably do not directly, and *per se* furnish any material pabulum to the brain and nerves. Alcohol is more really and strictly a food, than either of them; for all material food is either plastic, (tissue making,) or respiratory, (heat making,) and alcohol is an excellent respiratory or calorific food, for it is far more digestible, and far quicker in its action than starch, fats, and sugar, and is at once absorbed by the vessels on the walls of the stomach; consequently where time is an object, as in cases of fainting, or of collapse from accidents, alcohol possesses a manifest advantage over the more solid and slowly-acting hydro-carbons." Even Dr. CARPENTER admits, that "Alcohol is the quickest in its action of all the hydro-carbons;" "but," he says, "others would be equally and more permanently efficacious if only

time were given them to act. In some exceptional cases this *time* cannot be given, and then alcohol is indicated." CARPENTER also says: "Alcohol, by presenting itself first for combustion in the lungs, prevents the other carbonaceous matter of the blood (supplied from food and other sources) from being burnt off the lungs." Most writers agree with MOLESCHOTT, that "wine saves the tissue from being burnt, by offering itself for fuel."

Recent experiments by eminent physiological chemists in Germany, have led them to the belief, that "alcohol (in common with tea and some other agents,) by preventing the waste of the tissues, is, if not a real and material pabulum, at least an equivalent to it, a diminution of expenditure being, of course, tantamount to an increase of income." "It is objected," says Dr. HOOPER, "that alcohol is only a temporary stimulus; that the force generated by it is only *temporary*. But this is not a valid objection, since *all* stimulus, *all* force is temporary; food, fresh air, exercise, are all *stimuli*, or generators of force, but are temporary in their action. Life is only possible under incessant stimulus. Tea and coffee are called "refreshing" stimuli; why should the stimulus of alcohol be called "noxious?"

Thus have I endeavored, by a few brief extracts from the works of eminent medical men, to exhibit the basis on which rests my belief in the use of alcohol as a medicine. I claim nothing for it beyond that. Its indiscriminate employment as a medicine has done great mischief, and the same may be said of many other valuable agents. But when judiciously employed, it has proved decidedly efficacious in numerous cases. And before I abandon the position I have assumed with regard to it, a stronger battery will have to be brought to bear upon me, than my friend Dr. TRALL has yet been able to erect. The shots he has hitherto fired have rather had a tendency to increase my belligerent propensities, than induce an inclination to *run*.

J. C. HURD.

FREDERICTON, February 18, 1863.

[OUR readers are aware that at the request of a few of our friends, and at the solicitation of Dr. TRALL, we were induced to permit a renewal of the "Alcoholic Medication" controversy in our columns. Since then we have published something near four columns on the subject, from the pen of Dr. TRALL, and nearly as much from Dr. HURD. We now state, for the information of our readers, that the balance of Dr. HURD's answer, which appears in this week's issue, is the last we can insert, and we respectfully inform the learned Doctors, that we decline publishing any further remarks on this apparently interminable discussion.—EDITOR.]

DR. TRALL'S FINALITY.

I AM not very much disappointed at the manner in which this discussion has terminated, although I had hoped for a better result. The merits or demerits of alcohol depend on the rationale of its effects—its *modus operandi*. This question cannot very well be discussed without involving the general subject of the *modus operandi* of medicines; nor can this matter be understood without an exposition of the essential nature of disease; and this, in turn, involves the doctrine of the “*vis medicatrix naturæ*,” and the theory of vitality. And thus the problem of the action, or effects, or medicinal uses of alcohol, unavoidably involves a discussion of all the primary and fundamental problems in medical science.

And here is just the intrinsic difficulty of all controversies of this kind. I assert, most unqualifiedly, that *all* of the primary premises and fundamental dogmas of the medical profession, to wit, of the action of medicines, of the nature of disease, of the *vis medicatrix naturæ*, of vitality, of the law of cure, etc., are erroneous; and that these erroneous doctrines have led, and do necessarily lead, to an erroneous, dangerous, and often fatal practice; and, furthermore, that all of the false medical science and bad medical practice in the world, originate from a single primary error concerning the relations of living and dead matter. No great reform can be made in the practice of the Healing Art, until these false doctrines are corrected, and they never can be corrected until the primary and fundamental truth—that living matter is active, and dead matter passive, in their relations to each other—is recognized.

Will Dr. HURD have proof, other than my assertions and arguments? He shall have the best evidence the nature of the case admits of—the deliberate declarations and recorded testimony of the bright and shining lights of the profession.

Said that most accomplished medical scholar which the medical profession has ever produced, your own JOHN MASON GOOD, M.D., F.R.S., “The language of the science of medicine is a barbarous jargon.”

Sir JOHN FORBES, M.D., F.R.S., of London, has testified: “Some patients get well with the aid of medicines; more without it; and still more in spite of it.”

Dr. FRANK, an eminent English author and practitioner: “Thousands are annually slaughtered in the quiet sick room.”

Professor JAMEISON, of Edinburg: “Nine times out of ten, our mis-called remedies are absolutely injurious to our patients.”

The great Dr. BAILIE, of London: “I have no faith whatever in medicine.”

Dr. EVANS, Fellow of the Royal College, London: “The medical practice of our day is at best a most uncertain and unsatisfactory system; it has neither philosophy nor common sense to commend it to confidence.”

Dr. BOSTOCK, author of the History of Medicine: “Every dose of medicine given is a blind experiment on the vitality of the patient.”

Sir JAMES JOHNSON, M.D., F.R.S., editor of the London *Medico-Chirurgical Review*: “I declare, as my conscientious conviction, founded on long experience, and reflection, that, if there was not a single

physician, surgeon, man-midwife, chemist, apothecary, druggist, nor druggist, on the face of the earth, there would be less sickness and less mortality than now prevail."

These extracts from European authors, and similar ones from American authors, could be extended indefinitely; but I will add the following confession and declaration deliberately adopted by the members of the National Medical Convention, representing the *elite* of the profession of the United States, held in St. Louis, Mo., a few years ago:

"It is wholly incontestible that there exists a wide-spread dissatisfaction with what is called the regular or old allopathic system of medical practice. Multitudes of people in this country and in Europe express an utter want of confidence in physicians and their physic. The cause is evident; *erroneous theory*, and, springing from it, *injurious*, often—*very* often—**FATAL PRACTICE!** Nothing will now subserve the absolute requisitions of an intelligent community, but a medical doctrine grounded upon *right reason*, in harmony with and avouched by the *unerring laws of nature*, and of the vital organism, and authenticated and confirmed by successful results."

At the International Temperance Convention, many able papers were read on the action and effects of alcohol, but no one undertook to explain its action. I undertook to solve the mystery of 4,000 years, by explaining that alcohol did not act at all, and that its various and strange effects were due to the action of the vital powers in expelling it from the system.

I well knew the revolutionary nature of the doctrine I had announced. I knew that if it were received by the public, the disuse of alcohol as a medicine would soon follow, and then the drug-shops would very soon be closed. And I said to the immense audience in Exeter Hall, "Let the temperance army inscribe just three words on its banners: 'NO ALCOHOLIC MEDICATION,' and the triumph of the temperance cause will soon be achieved;" and this sentiment, I am happy to know, was much better received by the sea of upturned faces which filled the spacious room, than it has been by Dr. HURD and his associates in the Grand Division of the Order of the Sons of Temperance, of Fredericton, New Brunswick.

Dr. HURD volunteered to prove that my position was untenable; but in his first article he did not meet my position at all, as the editor of the *Philanthropist* very plainly told him. Whether he has since met any one of the positions I have advanced, or successfully maintained a single one of his own, the reader can judge for himself.

I knew very well in the outset that our discussion would soon involve the theories of the popular medical system; and I knew that those theories were false. I knew that they could not bear discussion. And I was not surprised when I learned that an influence was at work "behind the throne" to stop the discussion, or suppress the paper—the *Philanthropist*.

I do not think it generous nor just that Dr. HURD, after volunteering to commence this controversy, should be allowed both to open and close it. I thought I was entitled to the last word as he had the first. But Dr. HURD is allowed to have *one first* and *two last* (pardon the false grammar) articles.

The why and wherefore of this—the *animus* or *modus operandi*—is sufficiently apparent from the remarks of the editor of the *Philanthropist* in relation to the discussion. In his first article the editor expresses

his surprise that Dr. HURD should undertake to refute my arguments. In his next article he accuses Dr. HURD of avoiding the true issue entirely. In a third article he informs us that Dr. HURD has given him "a very unpleasant impression of the glorious uncertainty of medical practice." And in a fourth article, he states that he has been threatened with a prosecution in the Grand Division of the Sons of Temperance, on account of this discussion in his paper; but standing bravely on the platform of "free speech and free press," he declares that the discussion may go on. After this declaration of independence he allows Dr. HURD to publish two articles, and then announces that he declines to publish anything further.

Were it the Sons of Temperance in the Grand Division who threatened the editor of the *Philanthropist*, or were it the medical men who were members of the Order? What harm could the discussion do to the Order? What soul of them ever imagined for a moment that the cause of temperance would be damaged by it? No, no. No one feared for *that* cause. But some there were who feared for *another* cause—the cause of drug medication. No sooner did the medical profession see the bearing of this discussion on its false and absurd doctrines and murderous practices that it resolved to put a stop to it.

I do not blame the editor of the *Philanthropist*. He little knew or dreamed what the profession could do and would do. Its doctrines could not bear the light; and they must not be exposed. The *Philanthropist* must stop the discussion or be suppressed. It was a matter of life and death with the paper, "and what will not a man give for his life?" This is the rationale of the thing.

And now a brief reply to Dr. HURD's last two articles, and I have done.

I am sorry to be obliged to entertain the suspicion that Dr. HURD has purposely turned our controversy into a personal quarrel, so as to divert attention from the real issue. But I cannot on any other supposition understand the meaning of his irrelevant insinuations. By taking fragmentary expressions from different paragraphs of my articles, and by omitting the intermediate sentences and substituting language of his own, he has, not very cleverly nor ingeniously, however, attempted to make it appear that I had applied to him opprobrious epithets, and that I had complained of want of public patronage, appreciation, sympathy, etc. There is neither truth nor decency in this miserable attempt at misrepresentation and prevarication.

I have said that Dr. HURD's side in this controversy is the side of all the enemies of the human race. Imagine, if you can, a rumseller, fiend, or devil, preaching total abstinence from alcoholic drink and alcoholic medication! What physician does not know that the employment of alcohol as a medicine is vastly more injurious than useful? Will Dr. HURD pretend to deny that, if alcohol as a medicine should be at once and forever disused throughout the world, mankind would be infinitely the gainer? And I ask again, is there a rumseller, fiend, or devil on earth or elsewhere, who would not, in the discussion between us, take the side of Dr. HURD? Principles, like men, may be known by the company they keep. But when I say this, I do not say, nor does my language imply, that Dr. HURD is a rumseller, fiend, or devil; nor do I put him on a level with them. I put his doctrines, which are false, on a level with their doctrines, which are also false. A good man may be mistaken. An honest physician may be in error. Dr. HURD

may mean well in administering alcohol as a medicine; and a rumseller fiend, or devil may mean mischief when dealing out or commending alcoholic beverages. But the good motive in the one case, and the bad motive in the other, do not place Dr. HURD and the other personages named on the same level in moral character, although their influence may be equally injurious to society. God judges motives, men can only judge of the consequences of actions.

Nor have I complained, as Dr. HURD has most indecently intimated, of persecution, or want of patronage, or appreciation, etc. Having no occasion to complain, I was not aware, till informed by Dr. HURD, that I had intruded into this discussion any personal grievance of any kind. I have all the professional and literary business I can possibly attend to, and the pay for it as fast as I can do it; and the income thereof affords me all that I have any desire for of this world's goods, and enables me to expend yearly, on the average, one thousand dollars of my earnings to promote health, medical, temperance, and other reforms. I have for twenty years contributed to the treasures of many temperance and beneficiary orders, but have never drawn one penny from them in my life. I have often attended temperance alliances, conventions, associations, orders, etc., involving days of time and hundreds of dollars of expense, which I always paid out of my own pocket. I went to London to attend the International Temperance Convention, at an expense of five hundred dollars, without asking, deriving, or receiving any part of it from any person or society. And if Dr. HURD will come to New York and discuss with me the question of the medicinal use of alcohol, I will hire a public hall and pay his expenses and all other expenses resulting therefrom; or if he and all the physicians of the Province of New Brunswick, who are members of the Grand Division of the Sons of Temperance, will discuss this question with me publicly in Fredericton, I will come there whenever it will suit their convenience, and at my own expense.

These personal and private matters do not belong legitimately to our discussion. But, as Dr. HURD has introduced them, I will avail myself of the opportunity to place myself right on the record.

So far as any attempt at argument is concerned, I see but little in Dr. HURD's concluding articles, except a repetition of the statements he made in his opening articles. And I cannot more fitly illustrate my appreciation of Dr. HURD's attempt to make the worse appear the better reason, than by quoting, for his amusement as well as instruction, the following document which I copy from the *Western Health Journal*. The clerical reasoning in favor of tobacco, is strikingly similar to the medical reasoning in favor of alcohol, bating, of course, the bad orthography, etymology, syntax, and prosody:

“We give place to the following letter from a *Minister* to one of our patients. Though said to be a man of influence—he raises tobacco and has *money*—the style, the logic, and reasoning are befitting the cause he advocates. We give it *verbatim et literatim*. But more of him further on.

S——, W——, Co., O.

DEAR FRIEND M——: *Sir*:—Yours of the 4th July came to hand and was red with much intrust. I must acknowledg that there is a small shade of plawsability connected with your arguments.

I have been acquainted with William Graham upwards of 40 years, and with his genualogy there is not a singal weekely one among his

numeous offspring all corpulent and harty and all follow the good example of there Father. So that your there fales in this case, and if fails in one case it is probable it may fale in more cases. You say you was once mad sick by tobacco this I beleve to be perfectly true. I once knew a man by the name of Hathaway that was made sick even nigh unto death by eating only five dozen of eggs at one time. Dos this prove that eggs are poisonous. I think not sir. Perhaps you took too large a doce of this valuable and preshous medisen for your Constitution perhaps you was like the man with the eggs you took too large a doce.

As it respects the oald man you speeke of in your letter it is contrary to the verey nature of things to suppose that tobacco was the cause of the desaster in his famaly. becaus the use of tobacco will throw off those unhelty morbed cecretions by the saliva Just consider for a moment a man that has been a regular chewer for the turm of 100 years if all the unhealthy and nasty slabbers and filth cecretions ware gathered to one place whi sir it would make a lake that a hog would disdain to swim in. Now talk of men and weoman produsing a helthy genealogy with such a lake of filth in them Sir it is imposable. It is true that all persons do not need this medison. sum are so Constitionally made that those filthy and unhelthy accumulalions are carried of by the natureal draugh of coars they do not need the use of this exalent preventive of dezese. Now when men and weoman propogate there spesces there offspring will partake more or less of there nature and deseses. this can be clerly proven by the negro and whites copulating together.

I will give you a history of my life so far as tobacco is concerned this I do for your conviction and infamation I will give you facts as they are whether you believe them or not it will not chage the truth.

In 2 or three months after I was married my wife was taken with a tickling cough and it appeared to increase I became alarmed So I took hur to our family physiton had hur examined and he said that it was his opinon that this tickling Cough was caused by the impure ccretions of the glans of the mouths and throat. He said that if she would commence using tobacco that it would relieve her immediately So I got some tobacco and she found immediate relieaf in 4 months our first child was born and she is the most weekely of our nine children O that my wife had only commenced the use of tobacco as soon as we were married I make no doubt poor Susanah would bes stout as aney of the famaly.

I was taken with the dropsey or to speak more correctly my musels were filled with impure water or morbed secretions I went to the doctor (he was a verey knowing and skillful Physiton) he said that the best remedy that he could recommend was Chewing tobacco I commenced and in one year I was perfectly restored to helth. So I came to the conclution that Chewing was a nasty dirty bissness and I quit for the turm of two years and I again comenced the use of tobacco and soon recovered my hlth. So my wife chews about a 4 cent plug and soaks allmost incesantly each weeke. I chew an 8 cent plug and smoke of evenings each weeke. now Sir under this influence of tobacco we propogated all our children and you may look at your northeran law and you will see one of those tobacco children Mary McCarthy is about an average spesman of the children except poor Susannah Odell. I will leave my best arguments untell an other time pleas doo your best

against the use of tobacco if our debt should prove interesting when we are threw I expect to have it all printed in pamphlet form I do not wish you to think me your adversary but your best friend

pleas write soon and give me sum plawsable arguments

there is not one of my tobacco children if they ware to assend up in a baloon and come down any whare among human beings but what could make a living and lay up money.

My wife is now 65 years of age and she can do more work than any of your fine ladys that are a frade of being poisoned by a tobacco leaf becaus her musals and skin and bones are pure of this nasty filth I wish you to consider me your affehtonate friend

J—— S——."

Dr. HURD cannot see the analogy between the stone and alcohol; and the reason he assigns is: "The one remains on the stomach, acting as a local irritant, the other is carried by the blood to the remotest part of the system. Strange indeed that I cannot see the analogy between them."

Very strange, indeed, Dr. HURD, that you cannot see that your language refutes your position. A few sentences back you said, "we affirm that alcohol *acts*, but we know not how." Now, in comparing the action of alcohol with the action of a stone you say, the alcohol "*is absorbed*" and "*is carried*." A reference to a few fundamental problems in the science of grammar, may enable us to get through the difficulty here. "Is," is a verb neuter. "To be, to do, and to suffer," are the functions of the verbs neuter, active, and passive. To be absorbed, is not "*to absorb*." To be carried, is not "*to carry*." The thing which is done unto, is not the thing which acts. To be absorbed is not to act, but to be acted on. To be carried, is not to do anything, but to be done unto. When Dr. HURD harnesses his horse to his gig in order to visit his numerous patients, he would, from the premise that the carriage acts on the horse and pushes it along, reason in this wise: "The carriage *being attached* to the horse by the harness, certain effects result. The carriage '*is carried*' along the road, hence it is reasonable to conclude that the carriage acts on the horse, although we cannot tell precisely *how* it acts." No, Dr. HURD, it is the carriage which "*is carried*," and the horse which acts, and we can tell precisely *how* he acts. The carriage is a dead, inert, inorganic substance, and the horse is a living, vitalized, acting machine. The editor of the *Philanthropist* whose organs of causality and comparison have not been sophisticated by a medical education, was not so far out of the way when he told you that your reasoning "placed the cart before the horse."

"Alcohol is absorbed," says Dr. HURD. What absorbs it? He says, "the blood." "Alcohol is carried," says Dr. HURD. What carries it? "The blood" again. *Where* does the blood carry the alcohol after it has absorbed it? "To all parts of the system," says our admirable logician. And so we have the "grammar run mad." "The blood absorbs and carries alcohol to all parts of the system," yet, the blood does not act on the alcohol, but the alcohol is a "volatile and diffusible"—ahem! Verily, "alcohol acts, but we know not how." Such logic reminds one of the Quaker in the play: "Verily, this man speaketh foolishness."

After this brilliant feat in ratiocination, Dr. HURD tells us, what would, no doubt, be highly interesting to a school boy in the rudiments.

that "words have various meanings, that we say *action* when water washes a stone; that we ascribe the waving of trees and the hurling of houses, etc., to the *action* of the wind; that an *active* agent is called an *active* remedy," etc., all of which is very true, and all of which is respectfully commended to the attention of all the abecedarians in the land. But the Doctor at length approaches the "fire-water" again, and, as usual, burns his fingers.

"Immediately on its introduction into the living system, certain well-known results follow, and that as the effects of the *action* of the alcohol—this is the primary cause, and it is absurd to attribute it to any other."

Here is a case in the law of logic, HURD *vs.* HURD. Let us try it. "Alcohol, when taken into the stomach is absorbed, and *is carried.*" "Dr. TRALL ascribes it to the action of the living system on the alcohol." What Dr. TRALL ascribes, Dr. HURD proves.

Dr. HURD's last logical demonstration is the most amusingly muddled of all. He seems to have wound himself into an inextricable entanglement. He says: "The system would not have acted if the alcohol had not been introduced into it; [yes it would, but not on the alcohol] but having been introduced into the system, it acts as an excitant or stimulus to its vital energies, suspended by disease or exhaustion. It acts on the system thus reduced, somewhat as the spur does on the jaded horse, or the rod does on the stubborn boy. Both are aroused amazingly by the application; but we need scarcely stop to enquire whether the spur acts on the horse, or the horse on the spur; the rod on the boy, or the boy on the rod."

To make the cases analogous the horse should take the spur *into his stomach*, and the boy should *swallow the rod*. Alcohol, we have just been told, *acts by being absorbed* by the blood, and *by being carried* (mind it does not absorb, it does not carry) to all parts of the system. If the spur, and the rod, act "somewhat" in the same way, they, too, must be absorbed, and carried, to some extent, at least. They must be "somewhat" *absorbed*, and "somewhat" *carried*. But who supposes that the spur, or the rod, whether taken into the stomach, or applied to the skin, imparts strength, or "supports vitality," in states of disease or debility? Who does not know that spurring a jaded horse, or whipping a stubborn boy, expends and wastes the vital energies? If Dr. HURD's reasoning is good, and the action of these things is "somewhat" alike, why not apply the spur, or the rod, to excite or stimulate the vital energies, "suspended by disease or exhaustion?" and why not apply alcohol to a jaded horse or a stubborn boy? This is one of those rules which will work both ways, if it will work at all. And why not introduce into the hospitals the processes of spurring and *rodding* the patients, as well as bleeding and blistering them? If Dr. HURD's whip-and-spur philosophy is carried to its legitimate conclusion, the practice of pricking and castigating feeble and depressed invalids, and "rousing them amazingly" from their states of "suspended" and "exhausted vital energies," may rival, if not supersede, the new Hypodermic plan of treatment, which consists in introducing the medicines into the system through the skin instead of, as heretofore, through the stomach. He may, peradventure, run a race of popularity and profit with the "Lebenswecker" of the "Baunscheidtismus" system, and the spur-and-rod of HURD become the approved professional "Dermic Irritator," instead of the "Dermatobiotikon" of Firmenich! No doubt the sick

man would be aroused more "amazingly" by the spur, or the rod, than he would be by the alcohol; but whether horse, boy, or patient, would not be sent a little faster to the graveyard by either spur, rod, or alcohol, is just the question between me and Dr. HURD. I think they would. He thinks they would not.

But I must notice another defect in the physiology, pathology, and therapeutics of his school. "Alcohol acts as an excitant or stimulus to the vital energies, suspended by disease or exhaustion." A mistake, in fact, Dr. HURD. When the vital energies are suspended the person is dead, and alcohol will not excite him at all, because there is no life to be excited; and when the vital energies are exhausted the person is also dead, and alcohol will not stimulate him at all, because there is no life to be stimulated.

And then we need not stop to enquire whether the alcohol, the spur, or the rod acts; or whether the living system, the horse, or the boy acts! It makes no sort of difference, Dr. HURD seems to think, whether the whale swallowed Jonah or Jonah swallowed the whale, provided something was swallowed—provided an *effect* was produced! No matter whether a man eats his dinner, or his dinner eats him, if only an effect is produced—if something is eaten! Makes no difference! I assure Dr. HURD that it makes *all* difference. Between truth and falsehood there is always a choice. If alcohol acts on the living system that action *may* be useful. It *may* impart something. Its effects *may* be beneficial. At least the question would have two sides. But if the living system acts, not to *use* but to *expel* the alcohol, then the action *must* be injurious, and the effects of that action a loss of vital energy. And the "amazing rousing" of the vital powers, under the stimulus of alcohol, the spur, and the rod, are but the manifestations of the defensive struggle of the vital powers. Until, therefore, Dr. HURD can settle this question of the action or non-action of alcohol, he has nothing to talk about, and all his rhetoric is but "sounding brass and tinkling cymbal."

The last article of Dr. HURD is made up of quotations from medical authors in favor of alcohol as a medicine, which I cannot but think is a strange and rather contemptible *finale* to an attempt to prove that my "position is untenable."

Dr. HURD quotes the opinions of several medical authors, to corroborate his opinions, that alcohol is a good medicine. If the question between us had been, "Are the opinions of Dr. HURD in accordance with the opinions of his professional brethren?" these quotations would have been pertinent. But as neither his opinions nor mine, are in controversy, but the truth or falsity of a scientific proposition, such a *subterfugious* method of argument seems to me quite out of place. It seems utterly impossible for Dr. HURD to remember, except now and then, what the question in issue is.

When Dr. HURD quotes Dr. TODD as saying, that alcohol, when given as a medicine "acts as direct nourishment to the nerves superior to any other kind of food," does he become suddenly oblivious of the experiments of LALLEMAND, PERRIN, and DUFOR, who proved that alcohol passed ("was carried") through the system unchanged? And when he quotes CARPENTER and MOLESCHOTT to the effect that alcohol is an efficacious stimulant, does he forget the experiments of alcohol on the plants, and on the leeches, and on the fishes, and on the birds, and on the reptiles, and on the frogs, dogs, cats, horses, and guinea-pigs, as de-

scribed in PEREIRA'S *Materia Medica*? One might suspect from his style of argument, that his main object in this discussion was to fortify his position before his customers, as a prescriber of alcoholic medicine; and not the investigation and establishment of truth.

There is one illustration of all of the principles involved in this controversy, to which I will, in conclusion, call the attention of Dr. HURD, and to which I wish I could direct the attention of every thinking person in the land. There is an article, called tobacco (which I hope Dr. HURD does not use), which is extensively used as a luxury, stimulant, excitant, etc. This article possesses, according to the standard medical authors, many and important *medicinal properties*. It has, indeed, a much wider range of "remedial virtues," if we may credit the books, than alcohol. It possesses all of the medicinal properties of alcohol, and several which alcohol does not possess. Indeed, in the number, extent, and variety of medicinal properties, "the filthy weed" stands at the very head of the *materia medica*. It belongs to nearly twenty classes of medicine, while alcohol belongs to only four or five. Alcohol is *stimulant, nervine, narcotic, and caustic*; while tobacco is *stimulant, nervine, narcotic, errhine, sternutatory, sialagogue, cholagogue, emetic, cathartic, alterative, diuretic, emmenagogue, parturifacient, expectorant, diaphoretic, antaphrodisiac, antiparasitic, and anthelmintic*. Tobacco belongs to a majority of all the known classes of medicines, while alcohol belongs to less than one-sixth of them. And as tobacco possesses *all* of the virtues of alcohol, and several extra ones, why is not tobacco the preferable agent to "support vitality?" Why is not tobacco "respiratory food?" So far as appearances go, and so far as any legitimate evidence can be had, a cigar is far more respiratory than a glass of grog. When a cigar is lighted, one end placed in the *patient's* mouth, and the smoke thereof drawn into the lungs, held there for a brief space of time, and then expelled through the mouth or nose—pervading all the circumambient atmosphere with a grateful perfume, or a horrid stench, as one is or is not addicted to its use—there is the evidence of fire, smoke, change, consumption, disintegration, etc., vividly suggestive of "calorifacient," "heat-forming," or "respiratory" food. The thing undergoes a change; its elements are variously decomposed and re-compounded; ashes, alkalies, acids, salts, gases, etc., result from the conflagration, and there is at least ground for the presumption, that tobacco may *impart* something to the system; that its elements may be in some way, transformed and used in the organism.

But alcohol is simply expelled. It goes through the system unchanged. There is no possibility of its imparting anything, or being transformed or used in any manner whatever. Yet medical philosophers call tobacco a *poison*, and alcohol a *food*! If tobacco were to be taken into the system as tobacco, carried the rounds of the circulation as tobacco, and eliminated from the system by the skin, kidneys, bowels, and lungs, as tobacco, would any person outside of a lunatic asylum, suspect it of being "respiratory food?" Yet alcohol is called "respiratory food" on evidence which can hardly amount to the shadow of a shade of that which can be adduced to prove that tobacco is "respiratory food!" And alcohol is called a good medicine on less than one quarter of the evidence that can be adduced to prove that tobacco is a good medicine!

There is another medicine which possesses all of the properties of alcohol—*stimulant, nervine, and narcotic*,—which can in any manner ally

it with "respiratory food." I mean opium. Alcohol, tobacco, and opium, are very similar in their essential medicinal properties, and for this reason they are so intimately associated in the work of depraving human instincts, and destroying the human race. Their effects, though differing in several particulars, are remarkably similar. Each in small doses frequently repeated, will procure a pleasurable excitement throughout the organic domain, attended with more or less mental exhilaration. This is the nervine effect—the nervine "operation," as the books have it. This is the action of the drug on the nervous system, according to the popular dogma, that medicines act on the system. Each in larger doses less frequently repeated, occasions an excitement, or disturbance, more especially of the circulating system, with a feverishness of the surface of the body. This is the *stimulant* effect—the stimulant "operation" of the books. This is the action of the drug on the bloodvessels, according to the doctrine that dead things act on living. Each in still larger doses at longer intervals, occasions loss of sensibility, stupor, coma, apoplexy, anesthesia, dead-drunkenness, etc. This is the *narcotic* effect, the narcotic "operation" of the schools. This is the action of the drug on the brain, according to the philosophy that poisons act on particular parts or organs in virtue of inherent "selective" or "elective" affinities.

Here are three deadly poisons, each possessing essentially the same medicinal properties, and each producing substantially the same effects on the living organism. Why is either one any more a "supporter of vitality,"—any more a "calorific food," than the other?

But we can make our illustration of the absurdity of the prevalent doctrine still plainer, our demonstration still stronger and more *pungent*, by a fact of peculiar significance. The odious secretion of that odoriferous animal, called the skunk, has been employed as a medicine. Taken into the stomach in small doses, it is a pleasant *nervine*; in larger doses a moderate *stimulant*; in very large doses, a decided *narcotic*. It has been highly recommended in cases of asthma, dyspnoea, bronchial affections, etc. It possesses the same "remedial virtues" as alcohol, tobacco, and opium; but who ever suspected it of being "respiratory food?"

Again, there are several species of spiders whose bodies and webs have been proved medicinal. The effect is very similar, whether the spider itself, or its gossamer *fly-trap* be swallowed. They have been made into pills, and administered, successfully we are told, in neuralgia, headache, intermittents, nervous disorders, etc. This *medicine*, too, is *nervine*, *stimulant*, or *narcotic*, according to dose. It possesses the same "remedial virtues" as alcohol, tobacco, opium, and skunk; yet no one has ever suspected it of being "calorific food," or a "supporter of vitality."

Yet again: the virus of the rattlesnake—a fluid secreted in a little sac at the roots of its fangs—has been found to possess also *nervine*, *stimulant*, and *narcotic* properties. It has been prescribed in a variety of asthmatic, bronchial, nervous and neuralgic affections, and if we can believe the authorities, with excellent results. And here it should be noted, that the effect of the rattlesnake's virus—and the same is true of all viruses, and of alcohol itself—is very different, in degree, at least, whether the agent be inserted under the skin, or taken into the stomach, for reasons which will be obvious to every intelligent physiologist. This *medicine*, too, is *nervine*, *stimulant*, and *narcotic*, as are to-

bacco, alcohol, opium, skunk, and spider. Has any medical philosopher ever regarded it as a "supporter of vitality" or as "respiratory food?"

Finally, the venom of the mad dog, and the infection of the venereal disease, have not only been proposed, but administered as remedial agents, by the medical profession. They, too, are *nervine, stimulant, narcotic*, according to quantity. They have been recommended as specifics or antidotes for the very diseases which they induce, on the Homœopathic principle of "*similia*." And these *medicines* possess the same remedial properties as alcohol, tobacco, opium, skunk, spider and rattlesnake. But what chemico-physiologist has ever thought of prescribing them as "supporters of vitality," or as "respiratory food?"

There are other banes, venoms, and viruses, derived from the vegetable and animal kingdoms—lobelia, assafetida, castor, musk, excrescences, morbid growths, excretions, concretions, effete matters, etc., which, when taken into the stomach will occasion *nervine, stimulant, and narcotic* effects, according to dose, like alcohol, tobacco, opium, skunk, rattlesnake, mad dog, and syphilis. But no physician that I know of, has ever suggested them as "supporters of vitality," or as "respiratory food?"

I will conclude my conclusion, with a specimen of medico-pathological logic than which no better specimen of Dr. HURD's method of reasoning can easily be produced.

"If nature does not cure disease, it may be asked, why do some diseases get well without remedies? I answer, the poisons which are received into the system, take root, (so to speak). They grow, mature, decline, and die, running a course of longer or shorter duration, in accordance with their inherent properties. For example, small-pox and measles have a duration of some eight days, and mumps about a week."—*Annual Publication of the Massachusetts Medical Society.*

Nonsensical as this language is, it is of such stuff that medical books are made. As is the case with Dr. HURD, and as is the case with all of the authors of his school, the author of the above extract—H. W. BUXTON, M. D.—fails to distinguish between the *causes of disease*, and the *disease* itself, and thus all his talk is mere "technical gibberish."

The poisons, we are told, "take root, grow, mature, decline, and die." Let us see: Give a patient a dose of any poison you can think of—arsenic, calomel, tartar emetic, opium, tobacco, or even alcohol. What becomes of it? Dr. HURD says it *acts*. Dr. BUXTON says it "grows." Dr. HURD says alcohol "is carried" to all parts of the system. Dr. BUXTON informs us that poisons "run a course." His reasoning is, *poisons run a course*, therefore small-pox and measles have a duration of eight days!

Is there not a little difference between poisons and small-pox, or measles? A little touch of true science will place this matter in its true light. Poisons or impurities of a particular kind, are the *causes of* small-pox or measles. The small-pox or measles is the effort to rid the system of their presence by expelling them through the skin. The disease is therefore the remedial action—the veritable "*vis medicatrix nature*." Who can wonder that the great MAGENDIE said to his medical class: "Gentlemen, *nature* does a great deal; but doctors do very little—*when they don't do harm!*"

LETTER TO MR. DELAVAN.

As this work is intended to be a "Permanent Temperance Document," I have concluded, at the request of several esteemed friends of the cause, to add to it a letter which I addressed to Mr. DELAVAN soon after my return from Europe, through the columns of the HERALD OF HEALTH, of January, 1863. I am happy in being able to say that, the perusal of the letter has satisfied several distinguished advocates of the Temperance Reformation (whose letters I have in possession), that the only basis on which this reform can ever be prosecuted to a successful result, is the scientific or physiological basis, and this implies the total disuse of all forms of alcoholic liquor, except for mechanical or chemical purposes.

TO EDWARD C. DELAVAN.

Dear Sir: The prominent position you have occupied for a quarter of a century, and the world-wide reputation you enjoy as an advocate and, in a large sense, benefactor of the cause of temperance, are my reasons and my apology, if apology is needed, for addressing you thus publicly on the cause dear to both of us. I can think of no better plan for arresting the attention of the right class of persons, and of interesting them in certain propositions which I have to advance. The object of this communication is to show that the advocates of temperance reform have never yet placed their cause on the right basis; that until they do, success is impossible, and that when they do so, success will be speedy and complete.

I am of the opinion that there has already been power enough expended—power of brain and of heart, of muscle and of money—to have exterminated the rum-fiend from the face of the earth, if it had been applied in the right direction.

Whatever importance may be attached to the moral, the religious, the social, and the economical arguments in favor of total abstinence from alcoholic beverages, there is yet one thing needful; this is the recognition of the *physiological* or *scientific basis*. You will tell me, perhaps, that the most eminent scientific men of the world—chemists, physiologists, physicians—have given their testimony in favor of temperance. And so they have; and at the same time given their *science* in favor of the cause of intemperance. You may refer me to the names of two or three thousand medical men who have testified that alcoholic stimulants are unnecessary, *except as medicines*. You may cite a hun-

dred medical professors who say that alcohol is not necessary, as a medicine, *provided* there are suitable *substitutes*, etc. Thus all of them recognize the relation of alcohol to the living organism to be *useful, remedial, restorative*. If this be true, where is the scientific basis of temperance? How can we condemn alcohol as a thing inimical to the life-principle in the temperance hall, and commend it as a "supporter of vitality" in the sick chamber?

The root of this overshadowing upas of intemperance is *alcoholic medication*. So long as alcohol is prescribed as a medicine, so long will it be employed as a beverage. And I undertake to say, that each and all of the reasons which can be assigned in favor of its administration as a medicine, will apply with equal cogency in favor of its use as a beverage. I make this statement deliberately, and am prepared to sustain it. At the present time alcoholic medication is rapidly increasing; and at this time, too, the use of intoxicating drink is rapidly extending. So it ever has been, so it ever will be. You can never accomplish the reform you seek until alcoholic medication is abandoned—*never, NEVER*. There is the great, the fatal obstacle, in our pathway. Can it be removed?

IS ALCOHOL USEFUL AS A MEDICINE? This problem involves the truth or falsity, the success or failure, of the temperance cause. If alcohol is in any sense remedial, it should be employed, let what will become of the temperance cause. If it is not useful, it should not be employed, let what will become of the medical profession, or the doctrines of their schools and books. If alcoholic medication is positively pernicious in all cases, and under all circumstances, it should be discarded from the apothecary shop; and when this is done, it will not long remain in the dram-shop.

WHAT IS THE TRUTH IN THIS MATTER? The question in issue is purely a scientific one, and as such I shall treat it. If the doctrines of the medical profession, on which alcoholic medication is based, are true; if they are in accordance with science, correct in philosophy, in harmony with the laws of nature, and in agreement with the vital conditions of the living organism, then is teetotalism, in the language of the *Westminster Review*, a "physiological error." But if, on the contrary, these doctrines can be shown to be false, if they are in opposition to nature, absurd in science, untrue in philosophy, and contrary to common sense, then teetotalism is a *physiological truth*, and the temperance reform has a scientific basis.

Alcohol is prescribed as a medicine in various conditions of debility, prostration, exhaustion, fatigue, indigestion, atony, torpor, etc., etc., on the theory that it is a "supporter of vitality." How it does this, none of its advocates profess to know. *In what manner* it sustains the vital powers, none of them pretend to explain. The rationale of its effects is confessedly not understood. The why and wherefore of its strange influence is an unsolved problem. Its *modus operandi* is a profound mystery. But that it does in *some way* support the powers of life, and impart (temporarily, at least) strength and energy to the enfeebled organism, is the almost undisputed theory of the medical profession.

I am prepared to prove, whenever and wherever opportunity is afforded me, that, on this point, the medical profession is and always has been mistaken; that all of its theories and assumptions in relation to the action, the effects, the *modus operandi* of alcohol are *false*. And all I ask, for the speedy triumph of the temperance cause throughout the

world, is simply to dispossess the medical profession, and through them the public mind, of the false theories on which the use of alcohol as a medicine is predicated. How can this be done?

I can think of no method except that of agitation, discussion. But can the medical profession—forty thousand strong in this country—be brought to a discussion of this question before the people? I fear not. For a dozen years I have been trying to get this subject before medical and scientific men, I confess with very poor success. I cannot even succeed in engaging temperance physicians in a conversation on the subject. I do not feel disposed to await the slow process of educating the masses of the people, so that they can understand and correct the errors of the scientific world, nor do I know that this is possible.

But as the influence of the medical profession is omnipotent on this question, I cannot consent to leave any method untried for having that influence in favor of our cause, and not against it. It is to the medical profession that the people look for guidance and direction in this matter. Where else can they go for instruction? If the medical profession understood and taught the true doctrine in relation to what is called the *action of alcohol*, there would be an end of alcoholic medication, and very soon alcoholic beverages would be among the things that were.

I said in the mass meeting convened in Exeter Hall, London, before an audience of five thousand persons, and in the presence of a large number of medical gentlemen, "Give us the simple declaration of scientific truth, of *the relations of alcohol and the living organism*, emanating from the body of the medical profession, and it will accomplish more for temperance in five years than can be done in fifty, or perhaps in five hundred years, without it." And in the International Temperance Convention I stood alone in advocating the disuse of alcohol, on the ground that it is injurious *per se*.

The positions I took there I am prepared to defend here. Other medical gentlemen could see their way clear to dispense with alcohol, if they could have an apothecary shop at hand from which to select substitutes. My position was and is that alcohol is *bad in itself*, whatever may be said of other drugs; that it does not in any case assist the patient to recover health; that it is in all cases worse than useless; and that the medical profession and the world are deluded in relation to its supposed "medicinal virtues." I offered to show, if opportunity were afforded me, by a just interpretation of the testimony of his own physicians, and the statement of the London *Lancet*, that the late Prince Albert was *killed* by alcoholic medication; and to explain how it is that distinguished men, in the prime of life, of vigorous constitutions, are dying almost daily, not of some trivial disease, as is generally supposed, but of alcoholic medication. I offered to go before any or all of the scientific men of England, or before the Royal College of Physicians in London, if I could be permitted so to do, and *prove* the positions I assumed, and meet all possible objections from any source. Nearly a year ago I made a similar offer in the Smithsonian Institute, Washington city; and I have repeated this proposition, or challenge, in presence of medical men, and under the shadow of medical colleges in New York, Boston, Baltimore, Chicago, Toronto, and other places. I allude to these facts, not so much, as I hope you will do me the justice to believe, to make an egotistical parade of what I have done or said, as to show my absolute and abiding confidence that I have a basis of truth

to stand upon. And the recognition of this truth, by the leaders of the temperance army, I regard as vital to the success of their cause.

HOW CAN THIS VITAL QUESTION BE SETTLED? By experience? Oh, no. We have had quite enough of that. Medical men have seen dissipation and debauchery, vice, crime, pauperism, and misery, following in the wake of the alcoholic bane for a period of four thousand years, and still their experience tells them it is a good medicine. They have tested it in all conceivable ways on plants, on animals, and on man, and they have recorded that disease, debility, disorganization, and death are the invariable results of its contact with living tissue of any kind, animal or vegetable, and yet they regard it as in some way restorative.

WHEREIN IS THE DELUSION? It consists in mistaking stimulation for nutrition, excitement for strength, vital expenditure for renewed energy. Alcohol is prescribed to a patient after he has had a course of fever, and become weak, emaciated, or during the fever, if it be of low diathesis, because it stimulates. The patient needs just the opposite—*rest*.

WHAT IS STIMULATION? It is itself *fever*, and nothing else. To administer stimulus after a patient has had a course of fever is to reproduce the fever; and can this be a restorative process? Give a well person what are called moderate doses of alcohol, and he will have the condition of fever. He will be in that state of bodily disturbance—"disordered physiology"—which is termed feverishness. He will have the form of disease to which the term fever has always been applied by medical men. Can the alcoholic fever support vitality or prolong life, or "aid and assist nature," or promote convalescence, or favor nutrition, any more than a miasmatic fever can, or any other fever induced by any other poison? The "medical science" of the world says, Yes. Nature and common sense say, No. Which authority shall we accept? Can the *cause* of fever be the proper remedy for the *consequences* of fever? Can the poison which occasions fever sustain the organism under a fever occasioned by other poisons, or obviate the debility resulting from other morbid agents? In the light of true science the proposition is simply absurd. If this word *stimulation* were correctly explained in medical books, or if it were employed in any precise and definite sense, the world would see the fallacy at once, and medical men would no longer perpetrate the monstrous and unparalleled blunder of administering the causes of fever to cure the consequences of fever.

They would then see that stimulation is the condition and action which *wastes the vital power*, instead of a process which *supplies or restores* it.

And now let us see how naturally and inevitably the *medicinal* employment of alcohol runs into its "dietetic" use. When a person is very much fatigued, as the result of a hard day's labor, he is in precisely the same vital condition that he is in after a course of fever, or during the course of a low fever. He wishes to regain his strength as soon as possible, and he resorts to alcohol. Why not? If alcohol will give power, impart energy, restore tone, support vitality, or act usefully in any manner, in a state of fatigue occasioned by fever, why not also in the same condition occasioned by over-exertion? The logic is irresistible. The argument is unanswerable. Thus the alcoholic drink succeeds the alcoholic medicine; and thus alcohol becomes the ever-convenient restorative and panacea in all conditions of the system for which stimulus is regarded as necessary or useful.

The whole controversy is thus resolved into the single issue: Whether alcohol, employed as a medicine, "sustains" or *wastes* the vital powers? Is not this subject of sufficient importance to be thoroughly investigated by all scientific men, and by the friends of temperance? Suppose we should have a convention—State, National, or Inter-National—on purpose to discuss this question, with a platform free to all who have anything to offer on one side or the other? I will pledge myself that *one side* of this proposition shall be represented.

THE PRIMARY QUESTION.—The present source of the delusion which has so long ruled the world, and which is sending tens of thousands to premature graves every year, and which is really the essential cause of all the dissipation and debauchery in the world, arises from a *false theory of the action of alcohol*. How does alcohol act? What is the rationale of its effects? What is its *modus operandi*? Until these questions are philosophically solved, and the solution clearly understood by the people, the temperance cause must remain stationary on the whole, with fitful seasons of progress, succeeded by reverses. And these questions I have solved. All that is wanted now is some way to get them into the medical profession and before the world. You may tell me that I should, on this subject, address the President of some Medical College, instead of the President of a State Temperance Society, and the Vice-President of a World's Temperance Convention. Alas! sir, this I have done, "full many a time and oft" during the last ten years, but unavailingly. You may not know so well as I do, the difficulty of introducing new, radical, and revolutionary opinions into the medical profession. It is not easy for men to reason against ingrained errors and life-long prepossessions, nor to see truths which conflict with the accumulated prejudices of three thousand years. Very few persons, once professionally educated, can ever be wholly divested of the theories of their schools. If the doctrine I have briefly intimated be true, it *disproves* all the teachings of medical books and schools in relation to the *essential nature of all diseases*, and the *modus operandi of all medicines*, and places medical science and the healing art on a very different basis. These, sir, are the reasons why I address my arguments to the medical profession with the same result that would follow if I should deliver an oration to the Rocky Mountains.

All of the teachings of our standard medical authors, and of all our approved text-books on chemistry and physiology, not excepting the multitudinous "Physiologies for Schools," are, so far as these questions are concerned, exactly contrary to truth and nature, and hence are mis-educating and misleading the public mind continually. This is why the temperance physician so frequently prescribes alcohol to his feeble, or dyspeptic, or nervous, or anemic, or scrofulous, or cachectic, or consumptive patient, as a "supporter of vitality," or an "invigorating cordial," or a necessary stimulus, and thus gives the scientific argument to the rumseller. And so long as the physician does this, I can have no mind, no heart, no judgment, and no conscience to quarrel with, or war upon the rumseller. If his rum really possesses these wonderful virtues, let him sell it.

This is why temperance men, on occasions of some trivial indisposition, resort to alcoholic stimulus, and soon become the regular patrons of the dram-shop. This is why, in seasons of excitement, men come up to the pledge like the rushing of the winds, but soon fall away like the leaves of autumn. This is why the achievements of the temperance

army are so surely followed by disaster and relapse. This is why the rum-selling fraternity of the Empire State are now "having it all their own way," whereas six or eight years ago we seemed to have been on the very eve of establishing temperance laws throughout the State. This is why Maine laws are useless, why license laws are a sham, and why rum-sellers rule our legislatures, our courts, and our municipal authorities. This is why "whisky rations," and sometimes double rations, are forced on our soldiers now in the field; why the officers of our army are dying of grog-doctored typhoid fever faster than they are falling by rebel bullets and bayonets; and this is why all the power of our government cannot or does not prevent the mercenary sutlers from robbing and murdering our country's defenders with the alcoholic poison.

This is why I arraign the false doctrines of the medical profession as being the chief, the fatal obstacle in the pathway of temperance reform. Teach the world the *exact scientific truth* in relation to the effects of alcohol on the living system, and the temperance cause will achieve itself. When physicians understand its *modus operandi*, they will cease to prescribe it as a medicine. When the people understand the rationale of its effects, they will cease to drink it as a beverage. Physicians and people alike will see through the delusion of a feverish stimulation to the terrible waste of vital power. Then we shall have no need of Maine Laws, Prohibitory Statutes, Temperance Unions, Leagues, Alliances, Sons of Temperance, Temples of Honor, Rechabite and Cadet Orders, nor Washingtonian Societies, for Total Abstinence from alcohol will become a physiological principle, instead of restraint or a privation.

Very respectfully yours,

R. T. TRALL, M. D.

FINIS.

THE
HYGIENIC INSTITUTE



NO. 15 LAIGHT STREET, NEW YORK.

E. P. MILLER, M. D.,
A. L. WOOD, M. D.,
ELLEN H. GOODELL, M. D., } RESIDENT PHYSICIANS.

R. T. TRALL, M. D., CONSULTING PHYSICIAN.

MILLER & WOOD, PROPRIETORS.

THIS is one of the oldest Health Establishments in the country. More than ten thousand patients have been received, prescribed for and treated, a large proportion of whom have been cured. Our long experience and increased facilities enable us to make more rapid and permanent cures at the present time, than ever before.

Dr. R. T. TRALL is still consulting physician, but the Medical Department is under the control of Drs. E. P. MILLER and A. L. WOOD. Dr. E. P. MILLER, besides having spent a year in one of the largest Water-Cures in the country, was for three years connected with Dr. TRALL in this Institution, and for the last two years has been attending lectures and clinics at Bellevue College, and studying disease in all its phases under the treatment of the best Professors and Physicians in Bellevue and Blackwell's Island Hospitals. He has also taken a course of instruction in operative surgery, and the science of accurate diagnosis of disease by physical exploration, and is a graduate of the Hygieo-Therapeutic College, Bellevue Hospital Medical College, New York Ophthalmic College, and Dio Lewis' Normal School for Physical Education. Dr. A. L. WOOD, who formerly had charge of the Providence Movement-Cure, New Gymnasium and Turkish-Bath Establishment, will have special charge of these Departments in this Institution, and devote his entire attention to them.

We have for our lady physician, Miss ELLEN H. GOODELL, M. D., who has had seven years' experience in one of our best country Cures, and has also won a reputation as an able lecturer upon Health Reform. Her wide experience and extended observation have tended to make her perfectly familiar with the multiform phases of those diseases peculiar to

woman, and any lady who may place herself under her care may be assured of receiving the most earnest attention and effectual treatment.

Our location is pleasant, being but one door from St. John's Park, to which our guests have access at all times; and within a half hour's ride of the world-renowned Central Park, whose beauties are beyond description. We are in a measure removed from the din and bustle of the great city, and yet so near Broadway and the principal trading marts, as to render it at once an agreeable and convenient resort for all who visit the city for health, business, or pleasure. Our proximity to River and Bay ensures to us a healthful blending of breezes from land and sea. The opportunity for riding in the country by stages, cars and omnibuses, and on the water by row, sail, ferry, and steamboats, and the facilities for taking excursions and short sea voyages with perfect safety, and at a few cents' expense, visiting such places as Greenwood Cemetery, Elysian Fields, Fort Lee, High Bridge, Staten Island, the various Fishing Banks, etc., are such as to afford not only pleasure, profit, and amusement, but to aid materially in the recovery of health.

We are now spending several thousand dollars in making most important improvements, among which are Turkish Baths, large and entirely new Movement-Cure Rooms, and a large fine Dining Hall.

Our Bath arrangements comprise all the varieties of baths found in other Cures with the vapor, Thermal, and Electrical Baths, the latter affording the most efficient means of applying Electricity for the cure of Rheumatism, Paralysis, Dyspepsia, Constipation, and chronic diseases of the Liver.

The Swedish Movement-Cure will in future be made one of the most prominent features in our Establishment; a large experience in its use having convinced us that much more rapid and permanent cures can be effected by its use, in a large class of chronic diseases, than by any other means. In Consumption, Paralysis, Uterine Displacements, Spinal Curvatures and deformities of every description, Imperfect Circulation of the Blood, Coldness of the Extremities, Constipation, Spermatorrhœa, and diseases of the nervous system, it is one of the most effectual remedies known—being so adapted to each patient's needs that the strongest are strengthened, while even the feeblest are greatly benefited thereby, without the exhaustion attending any other mode of exercise.

The Turkish or Hot-Air Bath consists, primarily, in the application of hot air (not steam) to the surface of the body, and, secondarily, the application of water and various manipulations called Shampooing. It is particularly applicable in diseases of the skin, Rheumatism, and Scrofula; for eliminating poisonous matter and purifying the system, both internally and externally. Common Colds are promptly relieved by it, and in chronic Catarrh and Neuralgic affections, it is invaluable. This bath is not only useful as a means of preserving the health and removing disease, but is, at the same time, a real luxury. This is the first and only Turkish or Hot-Air Bath in New York.

OUR TABLE is supplied with the best Hygienic food. The fruits of the season appear upon it in abundance, together with all other substantial articles of diet which promote health. We do not believe our table is excelled by that of any Cure in the country; our facilities in the New York market rendering it easy to procure desirable articles of food.

In Surgery, we give special attention to the treatment of Diseased Joints, Tumors, Polypi, Cancers, Hemorrhoids, Fistulas, Ulcers, etc.

NECESSARIES.—Each patient should be provided with two blankets, two comfortables, two sheets and several towels, or these may be hired at the Institution for \$1.00 per week.

TERMS.—Consultation fee \$5.00. Full board with treatment from \$9.00 to \$20 per week. Board without treatment, \$6.00 to \$15.00. All communications with regard to treatment, etc., should be addressed to
DRS. MILLER & WOOD, Nc

NATIONAL LIBRARY OF MEDICINE



NLM 03275026 7