

An inquiry into the reasons and results of the prescription of intoxicating liquors in the practice of medicine / by F.R. Lees.

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AN INQUIRY
INTO THE
REASONS AND RESULTS
OF THE
PRESCRIPTION OF
INTOXICATING LIQUORS
IN THE
PRACTICE OF MEDICINE.

BY DR F. R. LEES, F.S.A., EDIN.,

AUTHOR OF THE "ILLUSTRATED HISTORY OF ALCOHOL,"
"ALLIANCE ARGUMENT ON PROHIBITION," "THE SCIENCE
OF SYMBOLS, A FRAGMENT ON LOGIC," ETC.



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Intoxicating-Wine is <i>φαρμακον αφροσυνης</i> , 'the Physic of Fools.'— <i>The Jewish Essenes</i> , B.C. 200.	
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"Physic has been more professed than laboured, and yet more laboured than advanced."	

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Intoxicating-Wine is *φαρμακον αφροσυνης*, 'the Physic of Fools.'—*The Jewish Essenes*, B.C. 200.

"Physic has been more professed than laboured, and yet more laboured than advanced."

LORD BACON.

"The delusions of the multitude are not so much to be wondered at, when the teachings of some of the highest Medical Authorities are so deficient in logical precision."

Medical Circular, 1865.

"Medicine is a great humbug. I know it is *called* a Science. Science, indeed!—it is nothing like Science. Doctors are merely Empirics, when they are not Charlatans. We are as ignorant as men *can* be."

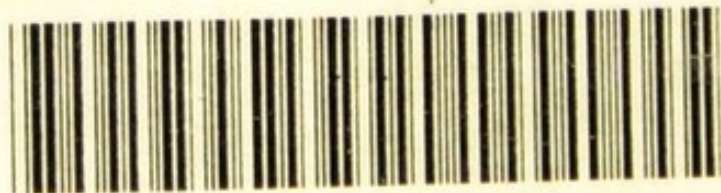
PROFESSOR MAGENDIE, Paris.

"I visited the different Schools of Medicine; and the students of each hinted, if they did not assert, that the other sects killed their patients."

DR BILLING.

"Nothing is so injurious to degenerative tendencies as Alcohol, and no form of alcoholic liquid so bad as Beer."

DR CHAMBERS; *Clinical Lectures*, 1865.



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D. D. D.

This little book was originally announced under the alliterative title of 'DOCTORS, DRUGS, AND DRINK,' because, in simple truth, these words denote the proper and peculiar subjects to be discussed. It has been suggested to me that such a phrase might be regarded as offensive; *wherefore*, I cannot myself perceive; but certainly no discourtesy was intended to an honourable and laborious profession. Why, indeed, should honest men be ashamed of the association of their own name with two things which they have sought a diploma and privilege industriously to dispense? However, in submission to the feelings of some friends, I have suppressed the title, while I retain the topics. I meant to prove, and I think shall prove, three things.

First, that *Doctors are not authoritative Teachers.*

Second, that *Drugs are not the valuable Curatives they are supposed to be.*

Third, that *Intoxicating Drink is neither Food nor Physic; but, on the contrary, is hurtful both in health and disease.*

This is with me no new position. It was taken up so early as 1843, in my 'Illustrated History of Alcohol,' where I deny and refute the Liebigian hypothesis, that Alcohol is decomposed within the body, and can therefore act as fuel to the frame, either in fever or in health.

I have written these chapters in the interest of the great Temperance Reform, after exercising much patience, and even painful reticence, in the hope that the Medical profession would break the bonds of Convention, and speak and act as freely and patriotically on the question of Drinking as they have done on the more fashionable matter of Sanitary Reform. With half-a-dozen brilliant exceptions, I have been grievously disappointed. From every part of Great Britain and Ireland, from India, Africa, Australia, and North America, complaints reach me continually that the Drink is chiefly sustained by *Medical Opinions*, and that weak-minded Temperance people are being perpetually seduced from their practice, often to their utter ruin, by the insistent or the careless *Medical prescription* of intoxicating-physic. Under these circumstances, I could no longer decline to meet this disastrous evil, or refuse to assail the threefold Superstition in which it is entrenched; especially when the Temperance Societies that solicited me to publish the work also enabled me to do so effectually by their guarantee of 20,000 copies.

I issue the book at this season to the honour of Him, the Great Physician, whose redeeming work is so sadly marred and hindered by the entire Drink-delusion.

MEANWOOD LODGE, NEAR LEEDS ;

Christmas, 1865.

I. OF DOCTORS AND DOCTORS.

IF physicians were the dispensers of a Science, there would be a general and permanent agreement in their practice, and Philanthropy could not possibly have any ground of complaint. I therefore propose, as my first work, to consider
 WHETHER MEDICINE IS A SCIENCE.

§ 1. In entering on the discussion of any branch of Science (which, if it mean anything, means *clear-seeing*), the first condition of success in our Truth-search must be the definite and intelligible use of language. Words are 'definite,' or transparent, when they are free from ambiguity or double-meaning; they are 'intelligible' when employed in their usual sense. Words, like Scripture, are not of private interpretation, and it is at once illegitimate and confusing to use old terms in a novel sense, and with an arbitrary signification. The Sophist alone will consciously do it. I have before me an inquiry into a branch of the subject of MEDICINE. By that word I mean, first, the doctrine or plan of 'healing' or 'curing' a diseased body: second, an element of *materia medica* which 'heals' or 'cures.' By '*disease*' I understand, what everybody else means (save a few doctrinaires)—a disordered state of the frame, both as to structure and work,—a want of *ease* in the function, arising from a want of fit matter and fitness in the organ. It is this *illness*, or *malady*, which the doctor has to change by 'treatment' into *healness*—if he can; this state of *disarrangement*, *defect*, or *injury* which he has to re-adjust or *rectify*: *i.e.* put 'right.' If, then, a man tells me, that '*disease*' is itself a 'right,' and not a 'wrong' state—is a *goodness*, not an *illness*—and that a *malady*, *disorder*, or *defect*, is a *remedial*, *perfecting*, *rectifying* process,—I can only turn away in pity, or request him to talk to me again when he has learnt to speak intelligibly. If he has anything 'right' to say—let him find right-words in which to express it, instead of wrong ones that muddle the whole subject.

§ 2. In harmony with the common and historical meaning of 'Disease,' as a derangement of parts or function, the philosophy of Medicine demands in each concrete case—the solution of two problems: 1st. *In what* does this mal-condition consist? 2nd. From what *Causes* or conditions preceding does it arise?

If these questions can be solved, three practical courses are open to us—namely, one ‘curative’; one ‘preventive’; and one ‘palliative.’ Our duty, with a diseased person before us, is, first, to cure him as speedily as possible;—second, to prevent the recurrence of his malady;—third, when we can do no better, to palliate the injury and ease the pain. If it be inquired, How are these ends to be accomplished? I answer: We can *cure*, either by dislodging the removable causes of the malady, whether internal or external, original or sequential; or by applying counter-actives—*i.e.* remedies which promote right action or lessen wrong:—we can *prevent* only by avoiding the original conditions on which the effect depends:—we can *palliate* symptoms, or reactions—which are the sequels of the disorder (or the secondary disease)—and thus give relief when we can do nothing else; or even sometimes when we are also touching causes. If the querist asks, “How do we quell the causes or consequences of disease?” I answer, by *strengthening* the vital system, since ‘disease’ is only another name for weak or perverted action of some kind: is a state of the organism which ceases of course when the conditions of the normal-state are induced.* In disease there are but two modes of giving strength—the first is that direct one which holds in health, the *supply* of the natural elements of the body and of the associated conditions needful for assimilative and normal action,—the second and indirect one, peculiar to disease, the *administration of medicines*; that is, substances possessed of specific-powers to suppress injurious, or promote remedial function.

§ 3. It will be obvious, then, that the underlying condition of all but Empirical or Accidental Medicine, is a true and comprehensive *knowledge* of the subject of treatment—the Human Body. This embraces, first, its *anatomy* or structure; second, and even more important, its *physiology*, *i.e.* the science

* That Sydenham, two hundred years ago, or Mr TOYNBEE, F.R.S., in his Inaugural at St Mary’s, in 1864, should affirm that Disease is *constructive* and curative, not *destructive*, will not abate the folly of the affirmation one jot. It is not meant to deny that Disease *includes* something comparatively good. Disorder is not chaos—but order deranged. The modified *reactions* of Vitality are partly resistive, and partly reparative. They are *better than absolute destruction*, but they are not necessarily *construction*; certainly not *adjusted* or normal action. On the contrary, it is the same absolute loss to the frame, as the loss of force to the American settler, when his family are summoned from the reproductive labours of the field, to defend farm and life from the incursions of hostile Indians. Civil-war may be better than Civil-death, but it is not therefore good.

of its functions as a living mechanism. The body is our instrument of knowing, feeling, thinking, doing: a *microcosm*, wherein are concentrated, with marvellous and divine skill, all the laws, principles, and forces of physics and chemistry displayed in the *macrocosm* whereon we 'live and move.' Our body is compounded of the dust we tread, the air we breathe, the water we drink: from these it came, to these it will return. The *forces* which they contained, we possess and wield. The measure of *their* power, so far as they become us, is the measure of *ours*: no more, no less. What we have of force, is received, not created: received through the appointed channels of our Food, Drink, and ætherial Surroundings. There is no miracle in all this: the virtue that flows out of us, was first drawn into us by the Natural Laws of *Assimilation*. As the steam-engine represents precisely the physical strength put into it, as the steam force exactly measures the fuel consumed and heat generated in the furnace,—so our *Body* is the exact correlative of the Food absorbed and transformed, and of the heat, electricity, and affinity which it embodied. As is the food, so is the body that digests it; as is the digestion, so the blood; as is the blood, so the warmth and nutrition; and as those, such the *strength* of the Living Frame. Thus the Forces of the Sun, sent forth as chemic, calorific, and luminiferous waves of power over the vegetal kingdom that gathers them up and moulds them into fruit and grain, are now, by a transforming process, centred, sublimed and correlated into the powers of the Living-Man, and become the means of sensation and the conditions of noble and intelligent work.

§ 4. It matters not to medicine, nor indeed to my argument, what special metaphysical definition may be given of 'Life.' Whether with many, we regard it as 'the *sum*' of the vital-activities—or, with others, as a *peculiar* power superadded to those derived from our Food, controlling and explaining them. Professor Beale limits 'living-matter' to that germinal condition that is *reproductive*,—which 'forms' organisms: so that, according to this, Life is the mother of Lifeless-children! For my part I regard Life as being a name for the *series and circle of movements* that, begun in seed, go on to root and stem, to leaf and flower and seed again—which are the apparitions of a Divine Idea, the evolutions of a law or thought of God. Life has this characteristic—that it is a *continuous chain*, in which no broken link is ever taken up. Once dead, dead for ever. The seed which corrupts never grows—the egg that rots is

never warmed into life—the body or limb which mortifies, never lives again—the trunk or branch that once dies, grows no more. As at the commencement, so at the close, God reserves the gift of Life to himself. Whether it is the seed, the fruit, or the human frame, He only can utter the sublime truth—“I am the Resurrection and the Life; the Alpha and the Omega—the Beginning and the End.”

On the one side, Nature, the true Prometheus, proclaims the end that awaits accomplishment—

This solid earth, this rocky frame,
To mould, to conquer, and to tame;
And to achieve the toilsome plan,
My Workman shall be man.

Human Intelligence, peering into the secrets of Nature, and perceiving the latent forces available for the end, responds—

Here let me work!
The busy spirits that eager lurk
Within a thousand labouring breasts,
Here let me *rouse*; and whoso rests
From labour, let him rest from life.
To live's to strive; and in the strife
To move the rock and stir the clod,
Man makes himself a God.

The body is a sacred instrument conditioned with Life for the precious ends alike of pleasure and duty, of happiness and development: and it is from the hazards and accidents of life, the derangements and infirmities to which this Divine Organism is liable, that we derive the importance and dignity of Medicine as a tentative, or a possible, Science of Rectification.

§ 5. A transatlantic philosopher has thus expressed the genesis of the Art of Healing: which, however, must always be subordinated, amongst *intelligent* persons, to the higher Science of Health.

“At the present day, such is the state of Medical Science, that the Doctors of Medicine know almost as little of man's body, as the Doctors of Divinity know of his spirit. Between disease and the doctor there is a wall, thick and high, with here and there a loophole which some scientific man has made. Men look through and see dimly *in spots*; and pass through some medicines and advice to palliate the mischief a little. The pain we feel when our friends die an unnatural death; our own reluctance to depart—life's duties not half done, nor half its joys possessed;—the sympathy which all men feel with

those that suffer thus, making another's misery our own,—these drive us to break down that wall to cure the disease, to learn the law of health, *that all may ride in sound bodies the stage of mortal life*, check the steeds *at the proper bound*, dismount from the flesh, and continue our journey in such other chariot as God provides for the ascension."

§ 6. Hahnemann and others have said, "As there is but one Disease, there is but one Remedy: if motion is lessened, it should be increased; if irritability is too great, it should be diminished." This, however plausible in words, does not go far in fact. If WEAKNESS at a certain point be the beginning, and its continuance the progress of *illness*, of course STRENGTH must be the beginning and progress towards *well-ness*: but the truth required is to know *how* to infuse strength; or *how* to avoid weakness. The weakness of disease is a 'result'—it is feeble-action—action below par—and feeble action is the consequence of some *force* that produced it (as of bullet, blister, pest, or poison) by 'knocking-down' the vital-structure in which *force was*.

Disease, therefore, is but a general term for abnormal-action; and is *just as various* as are the *kinds of injury*. Of course, all action is reducible to the truistic-formula of 'too-much' or 'too-little'—which is only saying, there is not the *balanced action* which constitutes life and health. I return, then to my old conclusion; that Food, Drink, and Air are the *only* possible materials of Health and Strength, their appropriation the *only* possible Remedial-process. In short, the true *Vis Medicatrix Naturæ*, the *Vis Conservatrix* of which we have heard so much, is Vitality itself. When the centralized forces are dominant, they *appropriate* other forces by their stronger affinity—when they are weak, they succumb and fall before the rude forces of unorganized external Nature. This is the battle of life—and all these consequences are traceable in the history of the germ (whether seed or egg), up to the fullest development of the adult organism, and downwards to death.

The marvel of life is in the subtle Mechanism in which common and complex forces have such perfect and continuous play and balance; or, to speak more strictly, in which the beam so long *vibrates* upon its pivot: with the exception of occasional *Illness*, when it sensibly declines, and the last Fall from which it can never rise.

§ 7. A knowledge of Anatomy and Physiology, general

and microscopical, prepares for the study of *Pathology*, or the knowledge of morbid structures. This is quite a modern development of *Medicine*, and one in which it boasts its greatest triumphs. Nevertheless, while this study may reveal *what* is wrong—may show the precise nature of the departure from the healthy standard of tissue and function—it will not, of itself, teach us *how* to get rid of the abnormal condition. “A knowledge of the disease is *not* half the cure,” quantitatively—it is only the first scientific step towards cure. The Physician’s second step is *Experiment*, as the basis of *Induction*—experiment in regard to the relation of *Drugs* and other *Agents* to disease. Here *Therapeutics* (the Art of Healing) properly commences. But this study calls into requisition two others—*Chemistry* and *Materia Medica*. Amongst the few certain things in ‘*Medicine*,’ may be ranked the application of some chemical remedies for chemical disorders of the blood and of the secretions. *Chemistry* is a progressive science of fixed relations; alkalies and acids must neutralize each other, and one substance dissolve another, whether in the stomach, the bladder, or the blood. A knowledge of *Chemistry*, therefore, is needful, not merely to enable the physician to prescribe the proper chemical drugs for producing the decompositions or the neutralizations demanded by the causes of disease, but to avoid the introduction of drugs that are chemically incompatible, and which would simply counteract each other.

§ 8. *Medical Botany*, not to speak of *Minerals*, introduces us to a class of peculiar organic-substances prepared in Nature’s laboratory of the *Vegetal Kingdom*, which have special characteristics. Some of them may be called ‘*simples*’—such as *tansy*, *broom-tops*, *mint*, *balm*, *penny royal*,—others may be gentle or quick *aperients*, weak or strong *bitters*,—and some may be powerful *sedatives*, like *fox-glove*, or strong *narcotics*, like the fearful *strychnine*, or the ‘*deadly aconite*.’ Nature has scattered over her domains a vast variety of such medicinal and poisonous products: these form the bulk of what is technically called *materia medica*, but whether they are useful, any or all of them, in the treatment of disease; or for what diseases, and in what measures and forms they should be administered,—are questions only to be settled by intelligent trial and scientifically conducted experiment; in short, by large *Inductions*, after careful observation and rigid comparison of results. Conclusions and practices short of this, are either downright *Quackery*, or simple *Empiricism*.

The predominant quality of drugs is to induce, in varying degrees, *very peculiar and very diverse responses or reactions* in the living organism.* Digitalis, for example, quiets the action of the heart. Morphia deadens the nerves and brain. Strychnine excites convulsions of the most frightful kind. Senna purges. Ipecacuana sickens. Blisters inflame. Pepper

* Even so distinguished a writer as Dr Charles J. B. Williams, in his 'Principles of Medicine,' stumbles sadly over causes. I cite a passage as an example of that flabby use of language so prevalent in medical literature. He says, (§ 14) "the co-operation of both the *predisposing* and *exciting* causes is generally necessary to produce disease." Nay! 'always,' since no disorder can be induced without a *pre-susceptibility* to injury. Mal-aria cannot produce ague on a body of adamant. "Five persons are exposed to cold, one gets a sore throat; another rheumatism; another pleurisy; another diarrhoea; a fifth escapes without any disease." Just so—for the plainest reason—that a *force* produces the greatest apparent effect where the *resistance* is least. Causes of disease *find* our weakest part. But mark the absurd verbal conclusion of Dr Williams:—"All five were exposed to the *same cause*, yet it acted differently on all"!!! He admits, immediately, that "the predisposition was insufficient" to the effect "without the exciting cause," and he has shown that the exciting cause was insufficient to produce an *uniformly* intense evil. Now as every true cause is sufficient to its proper effect, it follows that the *cause* in the five cases was as different as the effects; one person resisted successfully; the others partially, but the cold fell uniformly on their *weak* parts. If a man's muscle is strong enough to *resist* a blow, he is unharmed; if not, he is bruised and pained; but in both cases a blow operates *uniformly*, as a blow. The *action* is not altered in either kind or degree, because of the resistance. Again, § 15, he perpetrates the same fallacy. "A *healthy* person living in a marshy district may not get an ague, but if he becomes *debilitated* by cold or fatigue, then the poison *will* act. But if the exciting cause be made *stronger* [less diluted] by his sleeping on the very marsh, then the poison may act *without predisposition* (!) and the ague begins." The poison *will* act in ALL cases, according to its own strength, as Dr Williams himself has just shown by the fact, that an *increase* of it is equivalent to an *increased* predisposition. Moreover, constant exposure to moderate doses of the poison will 'debilitate,' and thus the ague begin at last. All this shows that disease has *two* elements for its causation: the *state* of the patient (as weak or strong), and the *state* of the poison (as weak or strong), and as are the CON-CAUSES, so are the *effects*. To deny this, is to deny the first principle of philosophy; is to assert, in fact, that *something* comes from nothing, and vanishes for the same empty reason! No force, or degree of a force, can be thought of, as *existing* without a ground for it. It is the sum and centre of all absurdity. If poison atoms 1, 2, 3, 4, 5, 6, have *no* force on B (body); do not act *at all*; how can they *give* force to atoms 7, 8, 9, and 10, to act on B? Or how can B either *give* force to those atoms, or *prevent* them acting according to their nature? A blow which *falls* a child, will not *move* a man—but the weight and nature of the *blow* is the same in the one case as in the other. Again, as it is equally a blow, whether dealt by a Lilliputian, or received by a Man, so the *stroke* of a drop of arsenic, or of alcohol, is not qualitatively different from the stroke of ten drops—though the resistance being different in degree, the injury may be less.

bites. Some vegetables are followed by increased, others by decreased action, of this or that special organ. To what then, are the varied 'effects' to be ascribed? We answer, *to the joint-properties of the two agents*—the DRUG and the ORGANISM. The forces of the one co-act with the forces of the other—and the product is the physiological or *pathological state*, whether it be sedation, stimulation, elimination, or inflammation.

§ 9. The singular difference of effect demonstrates that each drug *bears a different permanent relationship to the organism*, since to say that different effects follow the same relations, is but a disguised way of asserting, that *like causes produce unlike results*, which, again, is equivalent to the doctrine that effects (viz. differences) have no ground of difference! If there were but *one* element in existence, there could be *no relation*—and therefore no causality: for every cause is double. A, alone and absolute, has no power to *produce* B: because there is by the supposition, only indivisible A. But postulate A *and* B—(not one, but unity—the One with the Other)—and the parentage of C, 'the effect,' becomes possible. Postulate Divine 'Thought' and 'Power'—and creation is evolved: remove 'thought' *or* 'power' and nothing is left *for* thought. "All things are double:" and of this dual universality, the law of causation is one example. In Logic we have major and minor—the conclusion completes the trine. In Physiology we have male and female—the offspring is the third. In Botany we have root and stem—the flower and fruit finish the trinity. In Physics we have two forces (centripetal and centrifugal) the result is motion. In Chemistry we have acid and alkali—the third is the neutral-salt. In Soul, we have reason and passion—Will makes the triad; and in God, we have Reason—Love—Spirit,—in other words, Creator, Redeemer, and Purifier. Ignorance of this law has led to many delusions, not only in philosophy and religion, but in physiology. Dr Anstie's book on 'Stimulants' is an elaborate blunder [see next note] based on the supposition that if A 4 and B 4 produce a certain effect together (say sensible narcotism), but B 1 and B 5 an apparently different physiological effect (not narcotism), *then* it is because the *properties* of A 1 are different from A 2, and those of A 2 from A 3 and A 4; or, in other words, that if a change of quantity in A, from 1 to 4 occurs, therefore at some one point, causelessly and suddenly, the quality of A undergoes a total change! I reply, not so. The final result is due to a combination of forces; but the action

or property of Alcohol cannot be *altered in kind* because it is counteracted when taken in some quantities, or in certain states of the body.

Were a medical teacher to argue that, though people who inhale large doses of cholera-poison may be affected as with a powerful narcotic, yet, in other circumstances, when the virus is largely diluted, it produces no cramps, and therefore *rather tends to stimulate and brace up the health*,—his brethren would simply suspect his sanity. "It is not, indeed," says Dr BUSHNAN, "to be believed for a moment, that effects are not uniformly proportioned to their causes in the organic world as certainly as in inorganic nature; but *where the thing acted on varies*, the cause [he means the *agent*, con-cause, or part-cause] is no longer a measure of the [whole] effect." In other words, its working is mingled with, and masked by, another activity which modifies the result.*

§ 10. In view, then, of the vast range of subjects involved in Medicine; of the nicety and complexity of the elements with which it has to deal,—questions of Life and Disease, questions physical and metaphysical, subjects chemical, physiological, and pathological,—and circumstances of every possible difference and variety,—we might very naturally presume that a science of it—*i.e.* a systematic and concatenated body of Facts, Laws, and Principles—was rather a thing to be desired than an achievement to be expected. The most distinguished members of the profession, the most profound thinkers of the world, the most authoritative organs of Medicine,—if we except

* The fact is, that the diluted virus of many Epidemics is known to produce a *lowered tone* of health, even where it is not strong-enough to produce the full-blown disease. But that lowered tone is *essentially* of the same type. Dr C. J. B. Williams well states this fact in his 'Principles,' § 105. "In aguish districts a HEALTHY person may have a severe *head-ache*; but this soon passes off. During the prevalence of Scarlatina, he may have a *sore throat* of a day's duration; and when Cholera prevails, few escape without more or less of transient *diarrhœa*. But the morbid influence goes no further, being successfully resisted." So Dr Billing accurately states the facts in his 'Principles of Medicine,' p. 71 (Ed. 1841). "A moderate cold with *extra* contractility, produces the effect of intense cold with ordinary contractility. It is thus that we have, in the *rationale* of medical phænomena, to refer constantly to the variation of the proportions of the components of a sum—*i.e.* the *two things* which contribute to a phænomenon." Dr T. K. Chambers puts a very suggestive question in his 'Clinical Lectures' (4th Ed.) "A few days before the Boy was attacked by typhus-fever, the Father fell ill with pneumonia. Is the pneumonia the expression of poison, *enough to injure a failing part*, but not enough to affect the *whole body*?" (p. 105.)

the Homœopathic school,—are unanimous in conceding that we *have* no ‘Science of Medicine.’ A belief in such, is simply a popular Superstition, which is as pernicious as superstitions in general.

§ 11. Dr J. S. Bushnan observes, that “it is a singular proof of the slow progress of Medicine as a science, that the controversy which arose among the Greek Physicians, between two and three thousand years ago, known as that between the Empirics and Dogmatics, still exists.”* Nothing large and fundamental is settled—“the *discord* of those who have disputed concerning these things,” is as great as when Celsus made this very remark.

§ 12. Lord Bacon, nigh two centuries back, made it a charge against physic, that “it has been more professed than laboured, and yet more laboured than advanced, as the pains bestowed thereon were *rather circular than progressive* ;” and, commenting on that remark, in his presidential address to the Metropolitan section of the Provincial Medical Association, Dr W. B. Richardson says: “I fear the same remark holds good now. Overwhelmed with details beyond all possibility of human recollection, *we are as far from principles as ever*; nay, I think farther. Here we stand in physic on this second day, of the seventh month, of the year 1861, divided into two sects: the one trusting by exploration of *the whole chaos* to drop by accident or good fortune on some choice fact or GENERALIZATION, the other hoping by sitting down in *one spot of the chaos*, and studying that, to do the same thing. It brings us to that pass in the world’s estimate, that when, by our ignorance, *we publicly offer up to Ignorance some great character in the drama of our generation*, we are pointed at with contempt. The Physician, as yet, can stand before no problem, and resting on safe premisses predict, with even ordinary certainty, the veritable course of the after-phænomena; he is obliged to co-mingle and confuse the actual phænomena with the surrounding conditions, and in the confusion to hazard no conjecture without a sensation from the inner judgment that, after all, he may be wrong. The day *will* come when Medicine shall be master of her position, and the mind that can reach the height of the *Æsculapian temple* shall look down on disease, measure its intensity, gather its source, predict its results, repel its advances, or cut short its corruptions, with a precision which shall astound the world as deeply as our *uncertainties* surprise it now.” But—“I presume

* *Medical Times*, February 11th, 1865.

not that this revolution shall be in our day. I see in it no work of one hand or one age. I fear that *we* shall do little to forward the end; but I know, at the same time, we may do much—*we may commence the work.*”*

§ 13. Sir John Forbes, M.D., in his famous article on Homœopathy, thus reveals the ‘secrets of the prison-house.’

“1st. That in a large proportion of the cases treated by *Allopathic* physicians, the disease is cured by Nature, and *not* by them.

“2nd. That in a lesser, but still not a smaller proportion, the disease is cured by nature *in spite* of them; in other words, their interference opposing, instead of assisting the cure.

“3rd. That, consequently, in a considerable proportion of diseases it would fare as well or better with patients, in the actual condition of the medical art as more generally practised, if *all* remedies—at least all active remedies, *especially drugs*—were abandoned.

“*What, indeed, is the history of medicine but a history of perpetual changes in the opinions and practice of its professors respecting the very same subjects, the nature and treatment of diseases?*”

“And amid all these changes—often extreme, and directly opposed to one another—do we not find these very diseases, the subject of them, remaining (with some exceptions) still the same in their progress and general event? Sometimes, no doubt, we observe changes in the character and event, obviously depending on the change in the treatment; and, alas! as often for the *worse* as for the better; but it holds good as a general rule, that, *amid all the changes of the treatment, the proportion of cures and deaths has remained nearly the same*; or, at least, if it has varied, the variation has borne no fixed relation to the difference of the treatment.

“This comparative powerlessness, and *positive uncertainty* of medicine, is also exhibited in a striking light when we come to trace the history and fortunes of particular remedies and modes of treatment, and observe the notions of practitioners, at different times respecting their positive or relative value.

“What difference of opinion! *What an array of alleged facts directly at variance with each other!* What contradictions! What opposite *results* of a like *experience!* What ups and downs! What glorification and degradation of the same remedy! What confidence now, what despair anon, in encountering the

* *British Medical Journal*, October 5th, 1861.

same disease, with the very same weapons! What *horror and intolerance* at one time, of the very opinions and practices which, previously and subsequently, are cherished and admired!

“Who amongst us, in fact, of *any considerable experience*, and who has thought somewhat as well as prescribed, but is ready to admit that in a large proportion of the cases he treats (whether his practice in individual instances be directed by precept and example, by theory, by observation, by experience, by habit, by accident, or by whatsoever principle of action) he has no positive proof, or rather *no proof whatever*—often indeed, very little probability—that the ‘remedies’ administered by him exert any beneficial influence over the disease? We often may *hope*, and frequently *believe*, and sometimes *feel confident*, that we do good even in this class of cases; but the honest philosophical Thinker, the experienced scientific Observer, will hesitate, even in the best cases, ere he commit himself by the positive assertion that the good done has been done *by him*.”

It is on this account, that, in the preceding part of this chapter, I have so strongly insisted upon the *necessary law* (of which even college-educated persons seem as unaware in general as the vulgar crowd), that the appropriation of Food is the exclusive fountain of Vital Forces,—the concentrated and correlated powers of that food, the only Healer, the true Medicine, the veritable *Æsculapius*!

§ 14. Last Midsummer, in an address, on the awarding of Prizes to the students of St Mary’s Hospital, Paddington, Sir RICHARD OWEN, F.R.S., Professor of Anatomy to the Royal College of Surgeons, made these observations:—

“It is sometimes asked, Is Medicine a science? This question, like many others, is hardly reasonable or fair, the two terms being so unequal in degrees of complexity. So far as Medicine knows the cause and condition of a curable disease, and the one infallible cure, to that extent it is science. If Medicine has mastered the nature of a specific malady, if there be such a thing as a specific, it may claim to be a science.

“Your excellent professor of chemistry will tell you that, having a special aim in view, he adds a certain re-agent to a given solution or mixture, knowing that it will produce such desired result—viz. a certain infallible decomposition and recombination. The prevision and its fulfilment prove that he possesses a Science. But, were other chemists to affirm that a different reagent would produce the same result, or that the solution, if left to itself, would produce it by spontaneous decomposition or recombination; and if there were really grounds for such affirmations or diverse views of the case, you would then conclude that chemistry had not reached the scientific stage, and would hardly expect it to enjoy public confidence. In fact, we see at the present day that the public confide not so much in Medicine as a science, as *in the particular Practitioner*. It is characteristic also of the present phase

in the growth of Medicine, that the public are liable to be deluded and led astray by its shams; and not until Medicine becomes a science can such simulacra be expected to vanish, and quacks and quackery become extinct. It is interesting, indeed, to consider how a Public, ignorant of, and careless about, the grounds and proofs of an established science, does in time come to believe in and trust it, to the exclusion of its simulacra, and the utter deposition and extinction of the quack professors of the same. I believe the public gain this faith *by what the true science effects* and what it *predicts*.

“By means of the data of astronomy, the seas are navigated, and remote parts of the earth reached with marvellous exactitude. Astronomy foretells phænomena to the day, hour, minute, even second of time: the interval—it may be years after the prediction—passes; and at the very hour, and fractional part of the hour, the event foretold comes off.

“Medicine is occasionally called upon to prophesy in public; the rank of the patient requires a bulletin. Reference to some of these series of predictions and the actual results may partly account for the degree in which Medicine still halts, as a science, in public estimation. From every analogy of the progress of human intellectual endeavours to raise, by observation and experiment, a body of facts and phænomena to the status of true science, the reply to the question would be emphatically, Yes!

“Anatomy; physiology; pathology, or a knowledge of deterioration of structures to the minutest degree in which the microscope can show such changes for the worse in the fluids and elementary tissues of organs; chemistry, especially organic; the nature and powers of medicines—in short, all three bodies of doctrine worthy of the name of Sciences, must be cultivated—if possible mastered—as the indispensable *basis* on which a lasting superstructure of a true science of Medicine can be raised. Medicine can only *become science* by and through the subservient bodies of doctrine that have become science—the *unknown* must be reached by the known.”

§ 15. The medical periodicals, when writing for the profession, are equally candid with the authorities. From a multitude of testimonies before me, I select four.

In a leader of the *Medical Times* for February, 7th, 1863, it is argued that “in some details, a scientific basis can be predicted in Medicine. Science, too, supplies infinite modes of exploration, diagnosis, and remedy, *but we have not yet solved some of the most elementary problems of life*: and till these *are solved*—till the natural history of health, and growth, and decay is more minutely known,—a scientific, as distinguished from an empirical, treatment of disease, *is an idle dream*. Medical practice may be sagacious, may be the effort of genius or imagination, may be successful, may be a boon to humanity—still it is *art*, not *science*.”

An excellent paragraph in the leader of the *Lancet* for October, 14th, 1865, says:—

“The extreme complexity of the circumstances under which the action of each medicine must be tested; the *impossibility* of securing identical conditions as the starting point, in separat-

ing the effects of the Medicine from those of the Disease, or of the physiological actions of the body; the multitude of interfering accidents which vary in every case, and which are capable of modifying [not the *nature*, but] the effect of the remedy,—are all circumstances which make medical experiment more or less inexact, and which have induced logicians as clear minded as MILL to declare, from a purely philosophical view of the subject, *what the most eminent practitioners of the medical art have been fain to confess*, that Medicine is not, and perhaps never can be, an exact science, any more than politics or history. All other branches of Science are recognized and rewarded by the State; but medical science is ignored and snubbed.* When the first principles of Physiology shall have become a part of the common knowledge of educated men, we may hope to see at an end the reign of ignorance and prejudice which still obstructs our path; we may then hope to see such a comprehension of our works as will prevent the public journals from *daily falling into the most absurd blunders on matters of the elementary Science of Life*. We hope every thing from the fellowship of the wise; we fear nothing from the carpings of the ignorant.”

The *Medical Circular* of January, 25th, 1865, justly says, “it is only from experience on a very large scale that any *trustworthy* deductions can be drawn; and it is the duty of us all, whether engaged in private practice or in the practice of hospitals and dispensaries, to make records of the failure or success of different plans of treatment, and thus, if not for ourselves, at least for our posterity, *to endeavour to build up a system of rational Medicine upon solid foundations.*”

Finally, the *Medico-Chirurgical Review*, a 6s. quarterly, in its issue for July, 1863, says:—“The physiology of any one day discredits that of the day before. Bit by bit, for ages past, the *ground* has been cleared. Labour is abundant, but the arched-foundation as yet there cannot be. There is no *cement* that will bind, there are not enough *bricks* in the yard. Physiology, as at present understood, is ‘doctrine,’ rather than knowledge. The true Physician smiles mournfully at the stock-paragraph of ‘consummate medical skill exhausting the resources of *Science* and *Art* for the relief of a sick prince,’ or other death-stricken dignitary” (P. 112).

The just conclusion then is, that in a profession which

* Yes! because it is *not* ‘Science.’ Government cannot afford to ignore *real Science*: and if it did, Science can afford to be ignored.

rests on no certain principles, it would be folly to repose a blind confidence.

§ 16. The *results* of the common prescription of Alcoholic liquor by Medical men is that important circumstance that at once necessitates and vindicates the inquiry just terminated. It might indeed be asked, with a certain theoretical plausibility,—Why should Teetotalers meddle with the question of Medicine? They have to do, simply and directly, with the use of alcohol as *beverage*; and is it not plain, that diet and drugs, food and physic are *contraries*, corresponding to the opposite conditions of Health and Disease? If alcohol be food, then it is no more special to disease in general than other food; if it be drug, then, on that very account, it cannot be diet. As the wise and witty MONTAIGNE says: “It must be something to trouble and disturb the stomach that must physic and cure it: thus one ill is cured by another.” Or as our own Dr TRUMAN observes in his *Treatise on Food*: “No disease can be cured without injury to the health, for the remedies employed always cause some excessive or *unnatural* action in the body, which lessens its power.” Now, if that be so—when the profession prescribes alcohol as *physic*—you should accept the fact as a proof of your principle, that alcohol is poison, and let the *doctors* pursue their profession in peace.

§ 17. This sounds very well, but unfortunately it does not work: and the reason may be seen presently. When Mr GLADSTONE wanted a plea for his demoralizing Wine-Bill—the last of an evil triad of Licenses—what, with all his eloquence, logic, and religion, was his apology for flooding the country with a new and insidious agent of Intemperance? Dr FERGUSSON had prescribed *Sherry* to him, to enable him to support his onerous labours! Sherry was a roborant medicine, *therefore* a wholesome drink for young women, boys, and men visiting the confectioners shops! Such was the practical logic of Parliament, of the Press, of the People, or the Profession! It may be—I think it is—very absurd, very disgraceful—but then it is *acted on*, and I am concerned with the cruel and terrible consequences. Now from various ranks of life, and from all quarters of the kingdom and the world, I receive illustrations of the *actual* connection between the prescription of alcohol in disease, and the subsequent and persistent abandonment of the principles of dietetic temperance. I have, therefore, come to the conclusion, that the belief in Alcohol as Food or as Medicine, is a *superstition* ‘one

and indivisible'—and I venture to affirm, after thirty years of close observation and experience, that unless the delusion be dispelled, it will stand as a most powerful obstacle in the path of practical reform and permanent progress. Independent, however, of the antagonism of the prevailing system to the cause of true temperance, I feel called to expose and rebuke it, because it is fraught with infinite evil to the health of mankind, and chargeable with a fearful amount of avoidable mortality.

§ 18. While it is, on the face of it, absurd to affirm that *because* a drug is good in disease, it must be good in health, or good as diet—thus confounding things and states that differ;—and while to drink ourself, or offer strong drink to others, on the plea that it is physic—a plea never extended to the use of salts or senna, rhubarb or colchicum—is palpably an attempt to justify drinking and the use of pleasant physic upon 'false pretences'—a plea confuted by the further fact, that it becomes a *permanent* medicine, which the Doctor is never asked to change, although the patient "never is but always *to be cured*,"—while, I say, all this is a patent piece of social hypocrisy,—I am ready to concede that so long as the belief remains, however latent, that alcohol has the *capacity to strengthen*, so long will the world continue to resort to such a pleasure-inspiring agent of restoration from weakness and low spirits. Doubtless, that which *gives* strength must be good; and were the Doctors oft-repeated and agreeable prescription anything but a fable and a fallacy, I should be the last person to object to their practice. But alcohol has no such power as food: it neither *is* food, nor can help in the remotest degree to the deposit and assimilation of food. And let men call it what they please—stimulant, tonic, narcotic—"everything by turns and nothing long"—unless it can become assimilated by the normal blood—the natural and exclusive source of power—its *dietetic use* must remain a delusion, an imposture, and a snare. Even in disease, it can only contribute to aggravate and perpetuate the national waste of constitutional Vitality which is displaying itself in the increased complexity of Disease, and the progress of idiotcy and insanity, and which is apparent enough even to the more intellectual conductors of the public press in their lucid intervals, when not writing bosh and balderdash concerning Teetotalism and the Permissive Bill. I cordially endorse the following dictum of the *Saturday Review* for October, 1861:—

“Medical Science is devoted constantly to the task of fanning into a sickly flame, the sparks of Life which are ever threatening to go out. *Every disease is a disease of weakness; and almost every medical prescription harps upon bark, iron, stimulants, and change of air.* Philosophers wonder that ENTHUSIASM is dead in England, and that we have fallen upon a grovelling and materialistic age. But Enthusiasm is the luxury of well filled veins, and healthy stomachs. A generation that lives on tonics, *has no strength left for superfluous sentiment.*” True, and we must recollect that this flabbily constituted Century, is but the sequel and successor of three Port and Gin-drinking generations of Ancestors. They sowed, and we reap. Shall we continue to sow the seeds of weakness for our posterity?

§ 19. It is thirty-six years ago since the good Dr Pye Smith said that “the permissions of some medical men, *too careless of physical and moral results,* had given great impulse to spirit-drinking, and had caused an estimate to be attached to spirituous liquors beyond their value as a medicinal drug.” The evil has gone on increasing since then, and has now become general and systematic—the result of one of those authoritative epidemics in medicine which happened unfortunately to coincide with both personal appetite and social fashion. It has not only strengthened the common delusion concerning strong drink, it has also led to the violation of the pledge in myriads of instances; in thousands it has lit up afresh the smouldering embers of the drunkard’s appetite, or engendered that appetite in the invalid all too susceptible of the bewitching ease and pleasure which conceals its deadly sting. A few weeks ago I re-visited a little town after an interval of several years, and on inquiring after an old teetotaler of 30 years standing—the postmaster of the place—the answer was—“For a trifling ailment, the doctor insisted that he should drink alcoholics; he did, and never gave up until he had killed himself.” A clergyman sends me the following:—

Greenheys, Manchester, October 26th, 1865.

MY DEAR SIR,—I met a few days ago with a sad instance of the cruelty of a Medical man. A respectable man, who used to be the organist of a church with which I was formerly connected, became a drunkard. Going down Oxford Road I met this poor man, looking the very picture of wretchedness. I spoke to him, and besought him to become a teetotaler, for the sake of his wife and family, if not for his own sake. “I want to ask, Mr Caine, if I can give up intoxicating liquors all at once. My doctor says if I do, I shall die; and that I must leave off by degrees, but I can’t do this, for if I take a little, I always take more, and go on till I am drunk. I am miserable

and wretched,' he said, with the tears trickling down his cheeks. I entreated him not to listen to his doctor, and to give up the accursed drink, at once and for ever. I also told him it would be a great blessing to him if he was put into prison for six months, as *there* he would be a teetotaler per-force, and doubtless come out of prison a wiser and a healthier man. I could give you other instances of a similar kind. Yours sincerely, WILLIAM CAINE, M.A.

§ 20. Against the semi-medical and dietetic use of alcohol, so much in vogue, eminent authorities have warned us wisely. SIR HENRY HOLLAND, in his Medical Notes, thus speaks of wine :

“ We have not less assurance that it is in numerous other cases habitually injurious in relation both to the digestive organs and to the functions of the brain. And it may be affirmed generally (as a point wholly apart from the enormous abuse of spirits amongst the lower orders), that *the use of wine is far too large for any real necessity or utility* in the classes which consume it in this country. Modern custom has abridged the excess, but much remains to be done before the habit is brought down to a salutary level; and *medical practice is greatly too indulgent on this point, to the weakness of those with whom it deals.* It is the part of every wise man once at least in life, to make trial of the effect of leaving off wine altogether; and this even without the suggestion of actual malady. To obtain them (the results) fairly, the abandonment must be complete for a time, a measure of no risk even where the change is greatest.”

§ 21. The first of the following cases, narrated by Professor NEWMAN, sufficiently shows the serious injury done to the brain; while the others equally illustrate some special mischief inflicted.

MY DEAR SIR,—I have much pleasure in complying with your request, that I would put down in writing, the substance of some statements which I made in conversation with you recently. They fall under four heads.

1.—I have from boyhood grown up in the belief, that alcoholic liquors are an unnatural beverage for persons in health. Both my parents habitually drank wine, according to that which was approved as ‘moderation.’ I was one of six children; and the usual attempt was made to initiate us into beer, ale, or porter at dinner, and the half-glass of wine at dessert. But we all resisted it, some more, some less strongly; and I well remember how both I and those younger than myself used to cough, and complain that wine burned us, and beer was nasty, in the earlier stages. In fact we all six grew up, barely submitting to such beverages, as a supposed occasional necessity for health, or a conformity to the usages of company. From observing this in us all, I very early concluded (as I have said) that the beverages were unnatural. I never acquired a taste for them, and was a practical abstainer already when I went to college.

2.—In Autumn, 1824 (if I rightly fix the date) I for the first time consulted a physician; my health being slightly affected by confinement on the sofa, caused by a severe sprain of the ankle. My physician was Dr Kidd, then at the head of his profession in Oxford. On finding that I did not take wine, he spoke as follows. “On no account take it. Many men drink wine
“all their lives, and do not seem the worse for it. At least, some of them

“live to be 80, or perhaps 84. We cannot forbid it to people who have the habit. But a man who habitually drinks wine, even in moderation, has his pulse a little higher than it else would be. He is in a state somewhat more inflammable for it. And if he get any acute disease,—which we are all likely to suffer at some time or other of our lives, and perhaps ought to count upon,—he will not get through it so safely, or recover so quickly, as if he had not been a wine-drinker. I therefore will never recommend the habit to one who has not yet formed it.”—You will not wonder that I was hereby confirmed in my course. Teetotalism and the Temperance movement had not yet been heard of. With regard to the recent treatment of disease, two painful cases have come before me.

3.—A lady intimately known to me, a person of high culture and superior mind, suffered a very severe cold in the chest some years back, for which her medical attendants prescribed and enforced frequent portions of sherry or other strong wine. She recovered, after a lingering and anxious illness, but long continued very feeble and unable to see friends. She told me that for six months and more after she was convalescent, she seemed to herself to be always drunk; having a confusion of head, which made her fear that she would never recover her mind.

4.—A gentleman advanced in years [brother to a celebrated social Reformer], but of hearty constitution, exposed himself incautiously, and brought on some inflammation in the chest. His daughters, believing in homœopathy, called in an eminent homœopathic physician, who prescribed brandy. The patient submitted for a little, but abhorred the remedy: found it very painful; declared he did not trust homœopathy; refused to continue the brandy, and with apologies dismissed the physician. A second was sent for,—an eminent practitioner; who instantly did the same thing, insisted on the patient taking spoonfuls of brandy periodically.* He declared that it burned his inside, and he loathed it. He got worse; and a third physician was called in. He also insisted that brandy was the right remedy; upon which the daughters used all their influence to persuade their father to submit. The remedy was continued some days, and at length it was proclaimed that the malady was subdued. But the brandy had done more than it was asked. It had destroyed the powers of the stomach: no food would nourish the patient, who died slowly and miserably of inevitable starvation. All three practitioners are eminent London men. The account, as I now write it, was given to me by one of the daughters, a highly intelligent lady. I am sincerely yours,

FRANCIS W. NEWMAN.

§ 22. From Lancashire I receive the particulars of a sad story—the writer being a Teacher of character and influence, whose life's happiness is marred by the consequences of a reckless and needless prescription.

MY DEAR DR LEES.—My object is twofold, first to give an instance of the pernicious results of prescribing the use of intoxicants by Medical men, and next to ask your advice as to the mode of treatment.

I have been myself a strict abstainer from my youth, my wife was the same, for many years before and after our marriage. She is a woman of very fair education, good common sense, of strong will, great natural kindness

* Nothing can be more inconsistent with the whole theory of Homœopathy than this free use of one drug along with others. It induces the suspicion that the Practitioners do not believe their own theory.—P. R. L.

of heart, deep religious convictions, and as to conduct in all matters apart from drinking, most scrupulous. She is also very respectably connected.

In an evil hour, however, after a trifling ailment, she was recommended by the Doctor to take a little stimulant.

Then came the terrible results which you have so perseveringly insisted on, that the use *creates the desire*, so that by this time the temptation is become quite irresistible, and I am doomed to witness scenes that would sicken the heart of a 'moderate drinker,' to say nothing of a zealous teetotaler, and that in a person I once loved dearly, and whom I still pity, but am obliged to regard with some degree of loathing. And this has been brought about, not as the consequence of the temptation of company, for most of our friends and connections are abstainers, temperance advocates, and Ministers, but this happened solely from private indulgence, *urged* in the first instance by the faculty. I write with tears, but I have thought that the case may be a warning to Medical men, as well as to their patients. Names of persons and places being suppressed, you are at liberty to make such use of my statement, as may serve the interests of Temperance."

§ 23. Men of all classes, and persons in all countries, testify to the mischief of medical-prescription of alcohol, especially as being antagonistic to the progress of Temperance; and it will be demonstrated in my last chapter, that they have not even the excuse of benefiting the public health or diminishing the mortality of disease. Mr MAGUIRE, in his 'Life of Father Mathew,' gives some examples amongst men of rank (such as Lord ARUNDEL and DANIEL O'CONNELL). Father MATHEW, in the very prime of his work, when I first induced him to visit England, often and bitterly condemned the reckless prescription of whisky, as causing relapses amongst his converts.—The Rev. FRANKLIN SPENCER, LL.D., Incumbent of St Matthew's, Marylebone, under date of September, 1861, thus gives his experience.—"It is with much sorrow I observe that medical men are the great promoters of drunkenness in this land; they are always recommending strong-ales, porter, and brandy to invalids."

The Rev. J. H. IRWIN, Independent Minister, thus writes:—

"I long for the appearance of 'Doctors, Drugs, and Drink.' This must now be our battle field. The number of men, in other respects intelligent, who have been turned out of the good way by the Doctors, is astounding. I have had to resist, steadfast in the faith *that under no conceivable circumstance is Alcohol indispensable*, or I too, should long ago have gone after my brethren in the ministry, who were once as enthusiastic teetotalers as myself. I have been again and again told, that in my case alcohol was *necessary*—but I have lived without it."

The last report of the American Temperance Union (1865)

complains of the evil, and the report of the Saratoga Temperance Convention, held in August last, representing 42 States, adopts strong language on the subject:—

“That in view of the recent developments of scientific investigation, the published opinions (and experience) of medical men, and especially in view of *the evil effects often known to follow the use of alcoholic medicines*, this Convention respectfully but earnestly requests all engaged in this honoured and influential profession, to *substitute* other articles in the place of Alcohol, so far as in their judgment it can be wisely done.”

The venerable E. C. DELAVAN, in speaking on the subject of this resolution, observed that “the Physicians, by their practice of prescribing alcoholics, were killing more men than any other class.”

The Honourable GERRITT SMITH said:—“Now that they had come to see that the medical-use of intoxicating drinks was working great mischief, and multiplying drunkards with fearful rapidity, that evil must be assailed.”

Professor PALMER, M.D., “believed that nine-tenths of the prescriptions of alcoholic drinks were *unnecessary and injurious*; but, in certain extreme cases, alcohol might be used on the same principle that the most virulent poisons are.”

The Rev. THEODORE CUYLER, of New York, eloquently called upon the delegates to “send out from the Convention, a voice in favour of the ostracism of the *Bottle* from the sick-room, and of the suppression of the Liquor-traffic.”

The Rev. HENRY WARD BEECHER thus prints:—

“The medical use of alcohol requires a word of remark. The extreme ground once taken that alcoholic preparations are never useful, I think to be untenable; and I believe it is now dismissed from the schools of medicine. The theory, too, of the action of alcohol—namely, that it *roused up vitality which was already stored in the body*, and that the excitement would measure the re-action, so that afterward it would be followed by exhaustion proportionate, is false. This is not the true theory of alcoholic drinks.*

“For men to regard alcohol as a panacea for all ills and ailments, and run to it as stock-medicine, I think would be the worst of all possible illusions. And here let me denounce the whole tribe of panaceas for the nameless ills of life, as liquors in disguise. It would be well to have it understood that these *Golden Bitters, Santa Cruz Bitters, Plantation Bitters*, and numerous other preparations of the same class, whose names are paraded on every picturesque rock along our great thoroughfares by pandering scoundrels, are rum, *rum*, RUM, with a little something added to disguise it.† To advertise these things is to encourage intemperance; and to suffer them to go unexposed is to leave

* This is *not* the true theory truly stated: that *excitement* is strength expended, and not strength imparted, is necessarily true. The loss is in all cases THE SAME as the excitement: just as twenty pounds spent, is twenty pounds loss to the pocket. Whether you ‘feel’ the loss, depends upon whether you have plenty of money left. L.

† So, in Britain, the *Quinine wine* is bad whisky bittered.

the community 'the prey of a subtle and most damaging evil. All these promises of rejuvenation, all these pretences of ability to revitalize worn-out men, are miserable *shams*. All these preparations for men and women, that claim the power to do such wonderful things, are scarcely disguised abominations of intemperance, are fit only for deception, and are a shame and disgrace to any respectable store, or respectable family. And it is high time that *this outrageous hypocrisy*, under the colour of medicine, should be exposed, and trod into the ditch from which it came, and to which it belongs.

"I cannot but regard the medical faculty as lending themselves unconsciously, and doubtless with the very best intentions, to this danger. No body of citizens are more truly public-spirited, more earnest to do right, more self-sacrificing and labour-enduring, or more disinterested, than physicians. There is no profession that deserves more honour and has more confidence, justly, than the profession of medicine. And it is not a charge that I make against the medical profession. I simply caution them not to lend themselves, as they are liable to do, to this work of intemperance. *Like every social body, they are subject to tides of fashion.* You know that there is a fashion of bonnets, a fashion of coats, a fashion of pleasures and amusements, and a fashion of eating and drinking, and there is a fashion of remedies. Doctors have fashions. And just now the tide sets very strong in the direction of alcoholic stimulants—particularly of Bourbon whisky. Everybody has, first or last, one of three complaints. Everything is either neuralgia, or heart-complaint, or dyspepsia, with the doctors; and Bourbon whisky seems to be the great wholesale stimulant. The minister, whose nervous system is deranged by too close application to his professional duties, drinks Bourbon whisky—the doctor told him to. The merchant, who has overtaxed his powers of body and mind by confining himself night and day to his business, drinks Bourbon whisky—his physician told him to. The lawyer, whose brain is perpetually at work, and intensely at work, drinks Bourbon whisky—his doctor told him to. *Everybody that feels bad is drinking Bourbon whisky under medical prescription!* The indiscriminate and almost universal prescription of it, I know cannot be right. I think that matter has gone full as far as fashion will justify, and that physicians should begin to hold back, and to discriminate, and to make fewer cases in which this all-healing remedy is applicable. Otherwise, under the cover of a medical prescription, we are going to have a deluge of whisky on the land again. For as soon as it is found out that the physician prescribes whisky for everything, men will not go to him any more, but will buy it in large quantities and at wholesale rates, and administer it themselves!

"And I aver that there are few, if any, disturbances in the community that cannot be traced, directly or indirectly, to intemperance. *It is a universal preparation for all public disorders.* Of all taxes, the whisky tax is the severest, and that tax comes out of your pocket. Do not you know that you pay for every single lazy man in the community? Do you not know that you pay the constable's fees, the sheriff's fees, the lawyer's fees, the jail fees, and the poor-house tax? You that are greatly offended when we speak of defending our young men by suppressing grog-shops; you that talk about invading private rights, when we propose by law to stay the flood of intemperance that sweeps through the land—you are obliged to pay the expense of the mischief that accrues therefrom. All the taxes that come upon us on account of criminal proceedings have their *origin* in intoxicating drink. The long hand of intemperance is the pocket-picker of the community"*—and the digits of that hand are the drink-shops.

* Sermon on Personal Rights. *New York Independent*, Jan. 12th, 1865.

§ 24. Perpetually asked to explain the apparently reckless and unconscientious proceedings of the Faculty, in this matter, I can only say, "Doctors are *men*—and men differ—and as with ordinary men, so with physicians, there are Doctors *and* Doctors; and you are bound to meet the facts here, just as much as in Theology, with your thousand sects, and their thousand—not sciences—but opinions." If Doctors and Patients will not *investigate* and *think*, patiently and accurately, there is no help for it; the *punishment*, the penalty of transgression, must follow inevitably and inflexibly, and men will be bled or blistered, purged or stimulated into disease and premature death, to the end of the chapter. When a person cants to me about the conscientiousness of his motives, I tell him that *that* does not prevent the unpleasantness of the results of mistaken action. A delusion and a lie are not ameliorated one jot by any amount of *negative* conscientiousness—which, in the majority of instances, is resolvable into intellectual laziness, mental whim, self-interested feeling, or pleasant and comfortable gratification. No man is *really* conscientious—no man fulfils the first law of his rational and moral nature—who does not *think* as the means of ascertaining that Divine Truth and Will which regulate all mortal destiny. Declining this, suffering is the sure consequence to himself or others, since that is the ripened fruit of transgression, whether wilfully or unwittingly done. It is, therefore, nothing to the purpose to allege, on the part of either patient or physician, that a 'conscientious *opinion*' is at the bottom of the practice—such a supposition is a simple impertinence, interposed between our Duty and God's Truth.

§ 25. As with other men and professions, so with the medical faculty; we must distinguish their constituent elements. First come the really Conscientious, Thoughtful, and Experienced. These have been amongst the enlighteners of mankind—sometimes the martyrs of Truth, and the apostles of Freedom—always the torch-bearers of Knowledge. But there were and are other Doctors than these, who, never contemplating Medicine as a science, never seek to realize any advance of that kind. Like the horse in the bark-mill, they go the allotted round, and never advance; contracted in their education, or learning merely by rote, they pursue the practice that happened to be in vogue during their pupillage, or if given to change, adopt the last system of medicine that may be in fashion; imitators, without their genius, of Brown, Graves, or Todd. Such is the ruck and run of

the profession; from whose imbecility, or incompetency, or thoughtlessness, health and temperance suffer so much. Since the medical organs impute to the *Homœopathic* practitioners the most mercenary motives in adapting their system to fashionable requirements, it might be fairly assumed that there were also many persons moved by similar motives in prescribing strong drinks, and thus feeding their own practice; but I must charitably suppose that few are at all *conscious* of being moved by such sordid interests. It is, I think, in great part—the result of an intellectual and professional *muddle*.

The following letter from Rochdale, dated December 15th, 1865, is a fair sample of hundreds received, and exhibits the difficulties which the Truth has to contend with; yet persons who had read and mastered my Physiological essays, could not possibly have been puzzled in the case described. This state of things will continue so long as Temperance Leagues make the distribution and sale of trashy *Tales* their chief work, instead of popularising the results of Science, and teaching Temperance men the laws of life, and the principles of reasoning. These bodies, as a rule, publish what is behind the age, instead of what is in advance, and hence we have to exclaim—as in the case of Professor MILLER's '*Alcohol*,'—“Save us from our Friends.”

DEAR SIR,—I take the liberty of writing to you, knowing, as I do, your attachment to the cause of Teetotalism, and your readiness at all times to give information on the subject. I am an abstainer of 20 years standing, and have always held that Drinks containing Alcohol, were not needed medicinally. I have, for the last three or four years, been *more or less* subject to *Bronchitis*, which has weakened me. During that time I have consulted three doctors, each of whom has told me it is *necessary* for me to take for a time, small quantities of home brewed beer, and of the light French wine recommended by Mr Cobden (I forget the name). *These medical gentlemen tell me that my blood is too cold and thin*, and that I must take the above, raw eggs beat up in *milk, mutton chops, etc.*, so as to warm and feed the blood, and strengthen the body; otherwise these repeated attacks will end in consumption. I have thought more on the matter since I know my last adviser is *not* a person *who generally recommends these things*, and who told me he was sorry to have to do so, knowing I was a Teetotaler, but he considered it to be his *duty* in my case. Apologising for thus intruding on your time, (and enclosing a stamped and directed envelope,) I remain, etc. R. A.

In regard to Professor MILLER, it is to be observed of his numerous and absurd prescriptions and exceptions, that he lived long enough to see the error of his theory as to Alcohol being useful in fever, because it warmed the blood as fuel,—and in republishing my translation of the French Experiments, he virtually recanted that theory. But, as I showed twenty

years ago, the blood is *colder* and *thinner* after the use of alcohol, not warmer and richer. Moreover, if alcohol did feed and warm, then the medical adviser ought to recommend it *every day*, in all diseases, since disease is weakness, and health is strength. If egg, mutton, fowl, etc., be taken alone with alcohol, and these good-things do the patient good (as they might), is it not clear that their good will be put down, falsely and fallaciously, to the credit of the *bad*-alcohol? One thing is certain, that alcohol can neither feed nor warm.

§ 26. The moral, as well as physical results, are well stated by the Rev. W. ALLAN, M.A., in a paper read before the London Clerical Conference, December 4th, 1865:—

“I have myself carried bottles of wine to the bed-sides of those whom I *felt*, and *knew*, to need such support when sinking in decline.* I have begged wine from others for those *not* then *suffering* from, but *recovering* from fever, and when I knew it would be properly used; I have done so in the past, and will do so again in the future. But at the same time I cannot but add how often, when visiting my parishioners on their dying beds, *I have found them so half stupefied with drink, so stupidly apathetic from this sole cause, that my ministrations were in vain*, the sounds of heaven and hell fell alike unheeded on their ears, and, insensible of their state, they frequently sank into eternity in a state of partial intoxication, caused by the doses of gin and brandy given, *according to the statements of the surrounding friends*, by order of the medical men. Oh, how I long that in all such cases, medical men, finding stimulants necessary, would *themselves* supply them, mingled with some unpalatable drug, suitable for the particular case, to prevent the danger of such sad results from their careless prescriptions.”

It would seem to me that *such* are the certain and necessary results of the free prescription of alcohol, and therefore precisely the results aimed at: and if such narcotization had any real curative or remedial relationship to the patient, the physician would be fully justified, since *his* business is to save life. In fact, this testimony shows how inveterate is the prejudice in favour of alcohol; how deeply embedded in the national mind is the superstitious belief in its magic power to achieve things intrinsically impossible; and we do not see how a clergyman, who runs up and down the parish with his brandied port wine, prescribing according to his own ideas of the ‘need,’ can have the right to sit in judgment on medical-men, who may fairly be presumed to know the *nature* of disease as well as he? If he has got proof of *what* the need is, and *how* the alcohol will supply it, let us by all means have it, for the

* After the assurance that he *FEELS* and *KNOWS* when people need a narcotic-poison, it would be impertinent to hope that this clergyman may learn what he is *doing* (as well as thinks what he is doing), before he dispenses in the future, so powerful a drug on his own authority.

guidance of both physician and patient. If not, the clerical quackery is no better than the medical.

§ 27. The drink and drug *Superstition* must be ascribed, most impartially, to the Public as well as to the Profession. The latter are quite aware of this, and, in writing for each other, in their own organs, candidly confess the truth, even where it implicates their honour. One of the most thoughtful and honest of the medical periodicals, reviewing a work by Dr PARKES, says:—

“Under one head, he gives the separate effects (on the kidney-secretion) of almost one hundred medicinal agents. In a third volume, he proposes to consider this dark-corner of our pathological being, the nature of the *tissue-changes* which lead to alterations in the excretions. Let us *all*, in our eagerness to snatch at *hints of indications* for the application of remedies, take a lesson from this philosophical programme. He knows and admits that *a world-of-facts* has yet to be accumulated and corrected *before any true deductions* can be drawn from them.”*

Then, turning to a work on ‘*Nature in the cure of Disease,*’ by the sensible Dr T. STRACHAN, the editor says:—

“A physician who dealt out simple truth to his patients would, probably very soon cease to have any patients to deal with. We are accused by the homœoquacks, and less enlightened people of that class, of dealing in fearful *polypharmacy* with our patients; but the truth is, *in nine cases out of ten, it is the Patient who demands these many remedies.* He wishes to feel that something is being done for him. He cannot, in any case, understand that the quiet, unseen, all-powerful, operations of Nature *are sufficient to work his cure.* Why then knock nature down? Still less can he bear to be told that for his disease, neither nature nor art *has* any cure. Here it is, indeed, in the incurable class of maladies, that the quack most gloriously revels. He is at home in the business of curing incurable diseases. And in one other class of affections he also shines, and that is in affections of the imagination—where no disease at all exists. We must not, however, be too hard upon human nature. It is natural enough for one who is condemned to die of cancer, to rush into the open arms of the first boastful scoundrel who has the effrontery to promise a certain cure. To tell a patient you can do nothing for him, is almost sure to drive him into the hands of those who advertise their lying promises of successful treatment. We can hope for no great change in this state of things *until the high Academies of the country teach the ingenious minds of their disciples, and learn themselves, something about the laws of animal bodies.* The quackeries of the country, whether medical or otherwise, are mainly patronised by what are called the *educated classes*—a fact which may be fairly ascribed (as it was once by FARADAY) *to the want of a proper instruction of these classes in the physical laws of the universe.* It requires some degree of courage to boast of the highly advanced state of the human mind, when we find from one end of the country to the other, reverend gentlemen—highly educated Oxonians and Cantabs—performing all kinds of mountebank tricks in the spirit-rapping line, or mesmeric subtleties, or the administration of globulistic atoms; and continually putting themselves in opposition to us, as

* Dr Markham's *British Medical Journal*, January 19th, 1861. p. 65.

curers of disease. It makes one almost think that we are falling back into the middle of the dark ages, when we find one of our great modern moral-teachers (as he is thought)* admitting into his magazine tales of second sight, and wonderful displays of the medium-flight through the air. *Is this all pandering to the degraded appetite of the public, or can it be that the moral teacher himself believes what he here scatters wide through the world to the injury of thousands of weak minds?*

"The quack thrives on the crass ignorance of the public, and on their love of being cheated, provided it be in the direction which suits their wishes."

NOR is Dr MARKHAM alone, by any means. Here are a few choice truths for the Public, taken from a book by Dr B. RIDGE, on 'Ourselves, our Food, and our Physic'—a book, nevertheless, not without liberal specimens of quackery.

"There is as great a reverence in Medicine for its *superstitions* and its *practices on faith* as on any other idolatrous practices. The public have refused all knowledge of their own bodies, for two reasons—first, every impediment has been thrown in their way of obtaining any satisfactory knowledge of themselves; secondly, its being imparted to them in such questionable shapes, in all the perplexities of scientific jargon. Inquiry has therefore been limited, and if the well-informed out of the profession *do* take any interest in the matter, they become so confused by the *contrariety of opinions and advice*, that they yield themselves up to the profession to be *slaughtered secundem artem*.

"Bewildered by the *fears* and the *whims* of an Ignorant Public, the profession is tossed about by its own adverse principles on the one hand, and its interests on the other. Some parties *will* have plenty of physick, and think themselves hardly done-by if they do not get it. Others exclaim against physick, but all have their physician daily, and expect him to cure by some principle of hygiene without physick; whilst the Charlatans, *seeing their game clearly before them*, take one or other of the principles used in general practice, and ride it as a hobby. At one time it is counter-irritation; at another, the swallowing of no end of pills; at another, hydropathy; at another, homœopathy. There is little doubt that self-torture is practised under certain delusions to a very great extent. A satisfaction appears to accompany this, because a *prejudice is flattered* and a usage obeyed. Why, then, should I interfere, if the world is so pleased with its ignorance? It is as likely to condemn me, as to receive my advice kindly. Why should I stand between a man and his own self-torture, who is constantly doing things to himself which no philosophy can warrant, or common sense justify? As civilized, is he *better* than the savages who cut their flesh voluntarily in the performance of certain ceremonies pleasing to their great Mumbo-Jumbo? Yet these are called ignorant, and devoid of reason. It must not however be supposed, that the errors of Medicine are confined to the self-administration of them; *they are shared in by the profession generally to an almost equal extent*, and there is as great a revolution required in *their* proceedings, as in those who are non-professional."

§ 28. The reader has seen how the Profession describes the superstition of the People; let us see how a distinguished

* THACKERAY—who might have been alive now had he been a Water-drinker. F.R.L.

physician can reveal the shortcomings of the Profession. The article is entitled the 'Malvern Water-works.'

"At all these aqueous foci, save one, antique and strong-minded women, and gouty, irascible old gentlemen, and *blasé* dandies, and strong-headed men of business, learn to believe in the virtues of homœopathy, whilst they are, at all events *for once in their lives*, practising hydropathically *the virtue of abstemiousness, taking rational exercise, and living a life of studied salubrity, under the pure air and charming scenery of the district.* What such abstemiousness, such exercise, and such a mode of life, could accomplish as health-restorers to the classes who resort to the hills for a water-cure, these people do not stop to ask; and is it reasonable for us to expect them so to do? The globule and the fountain are, in their sight, the two *co-efficient* and *all-effectual* agents. We suppose that not one of us, however legitimately inclined, will deny that there are curative powers, much good, great medicinal virtues, in water as applied hydropathically to the human body. We may assume, and justly, that hundreds of the people who flock to Malvern for the water-cure—their urine loaded with lithates, and their blood and body groaning under a superfluity of rich nitrogenous and heavy carbonaceous materials—would, by the simple and rational mode of living there practised, soon recover health. We may assume this, and yet freely admit that hydrotherapeia is a great fact. But how has the profession met this offered addition to its therapeutic store? We are bound to say that it has snubbed the thing. *Instead of extracting the good out of the proceedings of the 'Silesian peasant,' as we pleasantly called Mr Priessnitz, we at once despatched him and his water-cure proceedings to the central limbo of all quackeries.* Medicine contemptuously turned from the article, and walked by on the other side. Instead of carefully investigating the strong *primâ facie* facts of the case, as it was bound to do, and publicly declaring, after due inquiry, that the thing was, in the eye of the profession, either good, or useful, or hurtful, Medicine simply pitched it, like a bone, into the mouth of what it considered to be a score of ravenous outsiders. We see the result, and have our just reward. There was undoubtedly *a truth* in the thing, a *virtue*, an *excellence*; and the profession had not the wit—shall we say the honesty?—knowingly to distil it forth. Just the same thing has it done in the matter of the Turkish Bath, admittedly, for good or for evil, a most powerful medicinal agent. Instead of coming forward as it should do, if it were a true guardian of the public health; instead of assuming the initiative, accepting or rejecting, or explaining, authorising and regulating the use of this powerful agent, it passes by, as it has so often done, like the proud Levite, and so again *lets a grand therapeutic agent fall into the hands of joint-stock companies and clever enthusiasts.* And yet—curious fact!—let only some fortunate discoverer announce *a new drug*, or a 'more elegant preparation' of an old one, as a capital cure of that sort for some incurable disease, and the whole profession rushes to the trial of its virtues, and for about six weeks or so, the journals abound in cases, demonstrative proofs of its efficacy and superiority over everything which went before it in that way. With all this eagerness for novelties and new fashions in drugs, we let the water-cure, the Turkish bath, and such like energetic remedies, down the wind, for fortune to play with. The fact is not creditable to us.

"We may clothe ourselves in broad phylacteries, and, with well-sounding periphrase, loudly inveigh against the abominable trickeries of charlatans, the unprofessional proceedings of what we term irregular practitioners, and the ignorance and gullibility of the world; but what a miserable subterfuge this

is, when all the time *we ourselves*, through our sins of omission, have been the original promoters of the quackery and of the irregular practices. In the very case now before us, and which has been the theme of our moral, should we have ever been subjected to this humiliation, *had we been true to ourselves, and equal to the performance of the duties which the world has a right to demand at our hands* in return for the confidence it reposes in us? Should we have ever witnessed such a scene—thousands of educated men from all parts of the country flocking for treatment to one great central homœopathico-hydropathic institution, finding there relief from their ills, and returning to their homes thoroughly imbued with the efficacy of hydropathy and of homœopathy, and, above all, with the fixed conviction in their minds that hydropathy is opposed to regular medicine, to the old-fashioned way of treating diseases, and therefore that the regular practitioners of medicine are bigoted? What wonder is it if, under such conditions, medicine sink in the esteem of the public? Of what use is it to preach to patients of the inefficacy and ‘irregularity’ of homœopathy and hydropathy, if they find by experience that at establishments where these things are practised they get rid of the complaints of which they wish to be relieved?” *

Mr HENRY MUDGE, an experienced surgeon at Bodmin, says :

“When the Cholera was raging at Mevagissey, I visited there, and attended in consultation with three professional brethren. At the close of a day of high mortality and fearful gloom, I pleaded hard, *as the patients were dying off so fast under treatment of brandy*, that this should be desisted from, and the saline treatment *tried* in a few cases. Not a practitioner would yield, and one went so far as to declare, that if he suffered a patient to die without brandy in collapse, he should think he had murdered him!” †

The *British Medical Journal* lately published a report of an address delivered by Dr D. B. WHITE, of Newcastle-upon-Tyne, as president of the northern branch of the Medical Association.

The outbreak of cholera in Gateshead on Christmas Day, 1831, was “after the customary night of dissipation among the dwellers in that town.” In reference to treatment, he says—“I would probably confide in nature more, and in brandy less. We should not, when our poor patients are maddened with thirst, *deny them the delicious draught of water, as we were told to do by medical authorities at the time.*”

§ 29. Statistics, however, demonstrate the blindness of routine, the inveterate character of professional prejudice, and the insensate *superstition* into which even educated men may sink, more powerfully than any other kind of evidence. In a subsequent section this will be illustrated with special reference to typhus and rheumatic fevers and cholera, but I now quote from the *British Medical Journal* of December 9th, 1865, a series of figures and facts well calculated to disturb the serenity of Routine, but which are quietly passed over as insignificant by Dr FRASER, their reporter—out of pure deference to the authority, the wisdom, and the dignity of the Professorial staff of the Hospital! As if the whole history of Medicine had not

* *British Medical Journal*, November 9th, 1861. † From *Alcoholics*. Bodmin, 1856.

been an unbroken illustration of 'the blind following the blind.' The 'staff' may have an 'object'—and verbally and logically it may be a coherent and defensible object—but if it do not fall in with the facts and laws of Nature, the poor patient becomes as much a victim of the best, as he could possibly be of the worst, intentions. The intellectual *status* of the profession is in fact betrayed by the monstrous assumption here involved—viz., that since a medical school, staff, or corporation *cannot err*, it would be 'a monstrous assumption to doubt the excellence of this practice'!

Some remarkable statistics regarding the employment of stimulants and the mortality in the London Hospital during some past years, appear in the last volume of the *Reports* of that hospital.

Dr Fraser tells us that, in 1851, there were 4,051 in-patients in the London Hospital; that in 1857, there were 3,935 in-patients, and the mortality was greater in 1857 as 8 to 6·5 per cent., although £962 more were spent in 1857 than in 1851 for articles of luxury.

The summaries of these statistics stand thus:—

From 1854 to 1858, each *Physician* employed 12,803 ounces of wine annually; the deaths being 11·88 per cent. From 1860 to 1864, he employed 48,136 ounces; the deaths being 12·65 per cent.

During 1854 to 1858, each *Surgeon* employed annually 38,016 ounces of wine; the deaths being 4·48 per cent. During 1860 to 1864, he employed annually 142,951 ounces; the deaths being 6·65 per cent.

In 1862, the general mortality of the hospital was 7·4 per cent.; the consumption of stimulants being 1,281 gallons of wine, 162 brandy, 38 gin.

In 1864, the mortality was 10·5 per cent.; the quantity of stimulants consumed being 1,558 gallons of wine, 359 of brandy, and 62 of gin.

It is curious to note, that the only comment which Dr Fraser makes on the above remarkable statistics is this:—

'It is evident that a steady rise in the employment of stimulants . . . *is still going on*; and whatever be the cause, we may rest assured that the practice 'is imperative and needful; FOR IT WOULD BE A MONSTROUS ASSUMPTION THAT A WHOLE STAFF could be *blindly* following an *objectless* routine.'

Not a single word of comment does Dr Fraser bestow on the constant fact of the coincident increase of the mortality!

Well knowing the fallacies so often edited through an erroneous interpretation of statistics, we do not pretend to connect the increase of deaths with the increase of stimulants consumed. But, when we reflect upon our modern advancement in medicine and surgery (especially as miscalled 'Conservative')—when we think of our great modern hygienic efforts,—*we may fairly ask for some explanation of the fact of a general advance in the mortality of a London hospital.*

"A steady rise in the employment of stimulants," says Dr Fraser, "is still going on"—*and an equally steady rise in the tide of death*—but a "whole staff cannot be blind"!!!

What comment would Dr Fraser make upon the Sangrado system, with its long enduring staff? What upon the old

Scripture fact in regard to the *twelve years' patient* "who had suffered many things of many Physicians, and had spent all that she had, and was nothing bettered, but rather grew worse"?

With what plea can Doctors, who reason so badly, who oppose so ignorantly, who prescribe so recklessly, and who kill so freely, claim the confidence of thinking men? What Mr JOHN BRIGHT lately said in one of his political orations, is in principle applicable to this topic, as much as to a party.

"I wonder, for my own part, how these men propound any opinions at all. If you had a lawyer who invariably lost every cause with which he was connected, who always gave opinions which the judges on the bench reversed,* you would not then, I should think, have much confidence in his legal knowledge. If you had a doctor, and it was an invariable rule that every house he entered to give advice, he entered again a fortnight or so later to attend his patient to the churchyard, you would not have much faith in such a doctor. You would say, indeed, that this lawyer and this doctor must have a marvellous effrontery to dare to offer an opinion at all, and still more to take a fee for it. I should say that men of this character were audacious pretenders."

§ 30. While Experiment, with its revenges, is ever more confuting the fashionable quackeries and pretentious sciolism of our opponents—of such men as JOHNSTON, and LANKESTER, and LEWES;—while *Time*, the unerring judge, is continually reversing the opinions of the mere chameleons of Science;—it is at once pitiable and amusing to hear the platitudes, and read the rubbish, which their class puts forth. Here is a brand-new specimen, recently published in the *Alliance News*.

Discourse of an eminent London surgeon, a sanitary reformer, and a philanthropist.—"I have read your address in the *Times*, Mr Newman. I see we greatly differ. You seem to be a teetotaler. But that is a physiological error. Men *need* a moderate supply of wine or beer. Men who use their minds much *must* have wine. A lawyer in hard work wants his wine, perhaps a pint of sherry; and will break down without it. Yet perhaps the same man a week after, when he gets his vacation, is better with only a glass or two in the day. Wine is the *food* of the brain. You say we do not all agree about that? eh! Well, we do not *all*. There is Dr Carpenter who says, No. Why, you cannot look in his face without seeing that he is suffering from want of wine and porter—is a martyr to his theory. He has gone back to alcohol, has he? Well, he was, we will hope, wise in time. Oh, you say it is only as a medicine. 'He has *not* gone back to it as a diet, but only as a medicine!' But he wants it *every day* of his life; and that is *diet*. And every man who works, wants beer, ale, or porter. They cannot get on without it; and it is mere oppression on the part of the squires and noblemen, whose power you want to take into the hands of the public, to forbid drinking shops. There ought to be plenty of such shops within easy reach of every working man. Your argument is perverse, which says, 'Pray give *us* that power of

* *Time*, the great judge, *does* perpetually reverse medical theories; while recording that *more*, not less, people die under general treatment than under no *treatment*.

oppression which *magistrates* and *squires* possess.' You ought to ask the legislature to take it away from everybody, and bring good-beer home to every poor man's cottage. Good beer does no harm to any working man. *Good* beer does not excite a desire for gin. It is all a mistake of your people; it is the *bad*-beer that does the mischief. The rascally fellows put drugs into it, which make one thirsty and create appetite for spirits. Yes, that is the real evil. Did you read the trial in which it was avowed that they keep (what they call) *black stuff* to put into the liquor, and that without it a publican would be ruined? The judge was quite right not to recognise such fraud in court. But it is a fact, undeniable and easily proved, that the whole gain of the publicans is made by adulteration. Why, if you buy a keg of beer wholesale, and compute what every pint costs you, it will appear that you do not save a penny, as compared to buying the same quantity by retail at the drink-shops. This is proof positive that *the publicans adulterate systematically and necessarily*, and the rogue who swore in court that they could not gain without it, told the simple truth. Now, what comes of this? you ask. Why, the working men's clubs should all make beer, and sell it to themselves. And if you want to do good, do not go with the ignorant teetotalers to fight against nature and science, but go and persuade every working man's club to make beer for itself, and bring the really good stuff home to every family."

Comment of Professor NEWMAN on the above.—"In the course of this utterance I did interpose one or two timid remarks, but as I was talking to a man of science, who spoke authoritatively, I feared to say too much, if I said anything, especially when I felt that I began to look *down* on his science. I was much struck with the phrase, 'Wine is the FOOD of the BRAIN.' I was afraid to tell him what I thought of it. I have heard of old, from physicians, that *sleep* is the food of the brain,* and that seems to me a legitimate metaphor: but a man of science may be expected to use food in a strict and correct sense, when he has to meet those who are acquainted with the discussions and experiments of the last ten years. When I remarked that there had been great changes of opinion in the medical profession, and I thought every fifteen years one might count on a new doctrine, he replied: 'You are liberal to allow us fifteen years! However, we do change, not without cause—for *the human constitution changes*—else we should indeed be absurd.' I was by this reminded of an eminent physicist, who said: 'They reverse the practice of their predecessors, and then the *humbugs* tell us the human constitution has changed.†' But I was afraid of being rude, and all to no purpose, if I went deeper into that argument. Not but that I remembered how poor Cavour was bled to death by Italian physicians, who only did as ours did 30 or 40 years ago—the Italians, alas! not knowing how the human constitution had altered. And what if, 20 years hence, the conviction become general that Prince Albert was a victim to alcoholic treatment?

* Sleep is a condition when the forces of the body are being economised by the non-expenditure of voluntary-power; and so the nutritive-processes and affinities can go on with greater intensity, thus *restoring the organism* of the brain, as of every other part. Power, under that condition, as necessarily *accumulates*, as money does, when we lessen our expenditure, with a fixed income. The sciolist may exclaim—'Yes, but alcohol, by inducing an artificial sleep, also *saves* power.' I answer: were this justifiable in the rare emergency of nervous delirium, it cannot be justifiable dietetically in health; and moreover, though alcohol may lessen a certain kind of action and expenditure, it *INEVITABLY* arrests the *process*, and deteriorates the *pabulum*, of nutrition. Hence, while it cannot *give* force, it must ultimately impair the conditions on which the natural and steady supply is dependent. L.

† The celebrated professor and F.R.S. who made this observation was right. M. DESCIEUX has lately published a pamphlet containing the idea that during the last

"But as our philanthropic surgeon ran so fast into condemnation of the existing drinkshops, and as the evils he denounced are inherent in the traffic, and he had no remedy (so far as I could make out) but *ours*, which would allow private families and clubs to *brew for themselves*, if they choose, I at last looked on him as our ally."

Well might any one trained to think, look *down* upon such representatives of Science as this! But, after all, however empty and hollow it seems, it is the burden of the song which all the Drink-doctors sing—in tones more or less coarse, and in words more or less coherent. Dr ANSTIE'S 'Stimulants' is but a bulky and disguised edition of the same discord.

§ 31. There is also a class of Doctors who call upon their imagination for their facts. They will not only state things the most incredible, but ask us to believe them, and affect to be insulted if we do not! Dr LANKESTER said at Dublin, that he had *disproved* the soundness of the alcoholic test adopted by LALLEMAND, PERRIN, DUROY, and EDWARD SMITH! I called upon him to publish his experiments. *Why did he not?* He still twaddles the old nonsense in the new 'Social Science Review,' and thus panders to the appetites and fashions of a class, reckless of truth and the great interests of humanity.* As Dr INMAN, of Liverpool, has dared to be rude to the advocates of Temperance, I reproduce the following from the *British Medical Journal*.

PROFESSIONAL AMENITY.—We were not able last week, through want of space, to publish Dr Inman's letter; but, in the mean time, asked him to give us some proofs of *one astounding statement* made in it by him; viz. "*that he had investigated five cases in which for many months nothing was taken but alcohol and water, the persons keeping up their apparent health and strength, and one increasing in fat.*" This request, to be found in last week's notices, has produced the following note from Dr Inman. As a reply to it, we again ask Dr Inman to give us *the details* of those cases upon which he frames the statement alluded to. We will only remark, that we sincerely trust that this is not Dr Inman's usual mode of arguing a scientific question.

"12, Rodney Street, Liverpool, Nov. 16, 1861.

Sir,—Your notice of my letter in to-day's *Journal* is insulting; but, as an editor, you offend with impunity.

To fall in with the prejudices of the many may make the *Journal* popular; but to commit breaches of good manners and good taste, will not make it respected.

I am, etc., THOMAS INMAN."

The *details* and *proofs* of the astounding statement have not yet seen the light; like mushrooms, and Dr LANKESTER'S experiments, they seem to thrive best in the dark.

quarter of a century the human constitution has undergone a change, and diseases have become *asthenic* (of a weak-type), and, therefore, bleeding won't do as formerly. He says the causes are *immorality, sensuality, etc.* Of course 'a fast life,' alternating with the narcotism of Drink and Tobacco, must drain the constitution of its vital-force; and thus render bleeding even *more* frightfully fatal than formerly.

* See the Exposure of his various blunders and fallacies in my *Works*, vol. i., p. cxiv., p. cxli. See exposure in *Temperance Spectator*, March, 1866.

§ 32. Other samples of Quackery, Delusion, and Collusion, will turn-up as I proceed with my more specific argument: but enough has been said to demonstrate the necessity of distinguishing between Doctors *and* Doctors: enough to show that *as* Doctors they must rather excite our grave distrust than attract our implicit confidence. The charitable, if not well-informed reader however, may make his *exceptions* as numerous as he pleases, since that will by no means affect the system and routine of medical practice. The more white-crows we can find, the better. There are, thank God, some few hundreds of Temperance doctors amongst the host of thousands whose tendencies run in the contrary direction; and there are honourable men also, who though they have not the self-command to deny themselves 'the pleasures of the social-bowl,' will not *cant* pseudo-science by way of weak apology for drinking—men who avow that the *truth* of Science is altogether on the side of abstinence, but scorn the mean and cowardly unverity of drinking upon false pretences. Amongst such men we gladly recognize Dr MARKHAM, of the *British Medical Journal*, and Dr KING CHAMBERS, author of *the Renewal of Life*, and Hon. Physician to the Prince of Wales. It is but just to observe finally, under this division of my inquiry, that while the conflicting schools of Doctors have established no Science of *Medicine*, and inflicted upon man during the lapse of ages a terrible series of fatal experiments, they have incidentally conferred much benefit upon the world in *other* paths of thought. The nature of their pursuits has necessarily rendered them valuable auxiliaries in the departments of Botany, Chemistry, and Anatomy. Some of their members fill illustrious niches in the Temple of Natural Science: many of them occupy a foremost rank in the history of Literature, while others, in times of darkness and persecution, have stood forth as the advocates of free Thought and the apostles of rational Liberty; nay, it is due to the Profession to record here, not only that medical-men were amongst the founders of the Temperance movement both in America, Sweden, and Britain, but have been amongst the most efficient expounders and defenders of the doctrine that *Alcohol is a dietetic poison*, at war alike with the physical, social, and moral interests of mankind.*

* See my '*Origin of Teetotalism.*' The honoured names of Rush, Clark, Linsley, Warren, Mussey, and Sewall in America, Faye and Huss in Sweden, Cheyne and Harvey in Ireland, Carrick, Beaumont, Higginbottom, Fothergill, Grindrod, Macculloch, Mudge, Carpenter, Miller, and Munroe in Britain, cannot be forgotten.

II.—OF DOCTORS AND DISEASE.

§ 33. "It is lamentable," says Dr RIDGE, "to see disease fully detected and apparent, *and then made worse*, and life lost, for the want of *proper rules* for the administration of drugs" (p. 64). Here is a jumble of truth and error. *Few* diseases are known in their essence, or are apparent in their beginnings. We mark the symptoms, it is true—the first, second, or third stages of organic ruin in cholera, or fever, or inflammation—but what do we know of the *cause*—of the *modus operandi* of the disturbing agent—of the initial stroke which sets up the complex re-action which we call 'disease'? The effect is the mingled result of agent and patient in *reciprocal* relation: Then, again, what *are* 'proper rules'?—who has made and *proved* them?—and how can we have directions for the use of an instrument the *nature* of which is unknown? Who has settled the *properties* of drugs, and who their *doses*? What says HAHNEMANN, to begin with that school?

"A Medicine, of a positive or *curative* kind, will, without any fault in itself, produce just the contrary of that which it ought to do, *if given in excessive quantity*, by producing a greater disease than that present. A medicine, though it may be homœopathically suited to the case of disease, does harm *in every dose that is too large*—the more harm the larger the dose; and by the magnitude of the dose, it does more harm the greater its homœopathicity."*

The *Homœopathic Pharmacopœia* is equally clear:—

"The magnitude of the dose has been a subject of controversy for years past, and *the question is no nearer a settlement now than it was years ago*. That the size of the dose ought to be proportionate to the intensity of the disease, seems to be self-evident. *It is utterly impossible to furnish rules that will prove safe and invariable guides* to the beginning practitioner; in spite of rules he will soon feel compelled to rely upon his *own* judgment, and pursue the opposite course of what was pointed out to him in books. Physicians who practice in the same family from year to year enjoy great advantages over the beginning practitioner, *as respects the dose* which should be prescribed under certain circumstances."

* If Alcoholics be given in bulk this opposes the dosage, or implies that they are not medicines. If with other drugs, this opposes the law of simple action in homœopathy. If prescribed as food, this betrays the ignorance of the physician on fundamental points of biology. If given any how—humbug.

This seems reasonable, since the *susceptibility*, or relative power of re-action, in the patient, must necessarily be an element in the joint-effect of the dual-forces. And immediately afterwards, Dr RIDGE appears to concede my point:—

“Men have been called upon to cure Disease, or rather to restore the body to a state they know nothing of in its chemico-vital integrity. The Caustic critic was right when he said, ‘Men apply medicine of which they know little, to bodies of which they know less’ . . . A hundred men, guided by *laws*, would pursue a similar treatment without collusion; whereas, *now, everyone acts differently* (p. 134). Some of our most eminent medical men, after years of devotion to the art, finding themselves baffled,—and seeing how *frequently, when drugging has ceased*, the patient has got well,—have been led to condemn medicine altogether. It is this very thing that makes Empiricism the atheism of Medicine; all that is correctly done now is by a mere matter of *accident*.

“That Medicines, administered with the best intentions, and according to all rules of art by the profession itself, as well as by all classes on their own responsibility, *aggravate disease* and suffering, is too clear to need any illustration.

“A key to its administration seems to be the *desideratum* of the age” (p.66).

§ 34. Nor is this estimate a solitary opinion of some questionable *pathist* with his peculiar whim. In reviewing one of the very best medical books of the last half-century—Dr KING CHAMBERS’S ‘Renewal of Life,’—the *Medico-Chirurgical Review*, for July, 1863, observes that “the two cardinal errors of *modern* physiology prevail everywhere through the work. As usual, they *overlay all hope or pretence of permanent doctrine in the science of disease*.

“During certain decades of our Medical history *the scandals of a shameless hydra-EMPIRICISM* were glorified under the blazon of true pathological principles, and ‘improved practical Science’! Yet, had the popular practising Physicians of the decades of 1820, 1830, 1840, been Physiologists to *the extent of believing in the blood as a vital necessity* of Structure and Function throughout the body, *enormous suffering would have been prevented, countless lives preserved*; and we should not now have been under the triple ban of homœopathy, excessive stimulation, and phlebotomy phobia”—dread of bleeding.

§ 35. Dr THOMAS LAYCOCK, Professor of Medicine in the University of Edinburgh, admits that “every accomplished physician finds, as his knowledge and experience increase with his years, that his youthful confidence in the certainty of Medicine was not well founded; he becomes more and more convinced of *its conjectural character* as a science (sic!), more cautious and

prudent, therefore, in the *application* of its principles, and more reliant on a learned experience.”*

Still more to the purpose, was the confession of Dr MARKHAM, in his address at St Mary’s Hospital, Paddington:—

“*Science had subjected to her searching analysis the opinions and credulities of mankind. She had made men give an account of the reason of their opinions. She had waged, and was still waging, combat with the ignorance, and the prejudices, and the thousand vain images which had so long kept, and still keep the world from the clear vision of unclouded truth. How, then, should medicine—an art above all others based on empirical practice, or opinion, or the results of individual belief and experience—escape the questioning of an age in which all opinions were being thus remodelled? This questioning and revolutionary spirit had passed into medicine, and he would endeavour to show them what had been its workings, and how they might, as he ventured to think, best direct the inquiry so as most effectually to advance the knowledge of their art. Now, for the first time in its history, their art was finding something like a sure foundation to rest upon, and though the actual advances hitherto made by it towards the position of a science were small, it had entered on the path by which alone it could ever reach that position. Their knowledge of disease and its treatment, though it was limited, was sure. Error was now no necessary associate of medicine. They could mark where their positive knowledge ended, and could calculate nicely the worth of the theories, and the worth of the practices, which they followed out in the cure of disease. They could estimate the limits of their therapeutical powers. The fermentation which medicine was now undergoing was a process of purification from the burdens of errors which centuries had gathered round it. This was why it was, that their progress in a positive sense had been but small—why they had as yet made but small advances towards the knowledge of the essential nature of diseases, and of that kind of treatment of them which might be called specific. Men of this generation could not hope to witness the elevation of medicine to the rank of a Science, but must be content with the humble task of assisting to remove the obstacles which still beset its progress. They must be content to collect materials for the reconstruction of the building. They must have the courage to cast aside the false goddess which men of their profession had so long and vainly worshipped. They must be satisfied with that true knowledge which came to them as the offspring of rational scepticism, enlightened by science. Their medical faith must, like all other faiths, be passed through the fires of rational inquiry; and they must remember that the profoundest belief of the physician in the efficacy of the remedy which he administers, imparted no real curative power to it. The source of the deepest errors which attached to medicine, was in the trust they were wont to repose in what was called Experience—that infallible oracle from whose dictum there was often no escape.”*

§ 36. Formerly, doctors were in the bad way of deeming that their practice was almost everything that could be desired. Students were told to bleed for *this*, blister for *that*, and purge for the *other*; and if the obstinate patient chose after all to die, why,

* *Encyclopædia Britannica*, 8th edition, Art. Phrenology. We shall see by and by, what a ‘learned experience’ is worth.

he enjoyed at least the satisfaction of dying, like the victim of MOLIÈRE'S physician, *selon les règles*. But though this arrogant sufficiency lingers with the INMANS and the ANSTIES, the *leaders* of medicine cease to display it. They know and feel that, while true sciences have taken immense strides, medicine has no such advancement to show—none, at least, commensurate with its great importance, its broad field of experiment, and its sublime mission. This very change of tone, however, promises well. When on a wrong road we find out our error and retrace our steps, we *are* advancing, even while we turn our backs on our journey's end; and thus we can almost excuse 'Medicine' for being still dumb in the presence of cholera and rinderpest, since we find it beginning to be modest. We noticed with pleasure the excellent remarks made, in 1864, at St Thomas's Hospital, by Dr CLAPTON:—"So ever varying, are the phases of disease; so comparatively imperfect, alas! is the knowledge we possess of *the subtle influences which operate in producing a departure from health*; so meagre, even yet, our acquaintance with the actual value of the *materia medica* which we call to our aid; so light the weight which might turn the scale, that *every conscientious practitioner of the art must look upon his whole life as but a studentship*." In this mood medicine may hope for principles instead of empirical and accidental successes; for, as ARNOLD said, "so long as you *humbly learn*, so long you may *hopefully teach*."

§ 37. And there *is* much to learn on the part of the profession. The bulk of the writers in it—from ANSTIE downwards to LANKESTER, and from LAYCOCK down to the lowest STORY of all—have hardly mastered the first elements of the problem.* This shall be made good by examples, beginning with W. STORY, Irish Licentiate, etc., and his work on 'Cholera.'

"If so much brandy and wine in health, *causes an increase of force*, which we know [it does] by the muscular contraction and excitement produced, *why* should it not do so when the *force* [what force?—the force of health?] is departing?"

But where is the proof that alcohol *increases* the stock of force? To expend, by exciting to the translation of force, is to *lose that force in the act of resisting the alcohol*, which was required to arrest the disease by repairing the tissues—the only possible MODE of an increase of force. In like manner, Dr

* See my full examination of Dr ANSTIE, in the tract entitled 'Stimulants and Narcotics.' 3d., post free.

ANSTIE regards alcoholics as 'restorers of *vital-motion*' to the normal level,—*therefore* closely approximating to true foods in their therapeutic action! But the only way to restore to their normal level the action of organs, is by restoring *their parts*—*i.e.* by nutrition, which alcohol has no tendency or power to do.

Food, again, has no other therapeutic-action than its plastic capacity of becoming the pabulum for the repair of the living parts: and alcohol has no such capacity, therefore can have no analogous action. The whole argument is a verbal-sophism of the most puerile character: a trick of language which a sharp boy ought to detect—or be given up for innate stupidity. An M.D.,—either Dr ANSTIE or his *alter ego*,—in the *Englishman's Magazine* for December, 1865, thus writes:—

"I regard the human body as an organic-machine, created for the purpose of *elaborating-force*. The amount of force (to be) *evolved*,* would be greatest in health. This dynamical *evolution* could only be MAINTAINED by the continual supply of its appropriate FOOD [conditions?]*—force*, in one form or other, being *the normal resultant* of FOOD-CONVERSION; and as this is the one OBJECT of food, anything which *aided* the function of *evolving-force*, would be"—FOOD!

Observe the sophistry! A locomotive steam-engine is a machine for getting up force (elastic and mechanical). The amount of force *capable* of being put forth, is in proportion to its size, its furnace, and its easy working (health). This can only be *maintained* by its FOOD (iron, water, and coke)—the *force* being in proportion to the CONVERSION OF THE *coke-FORCE* into

* Dr E. Smith, in general an accurate reasoner, has not quite freed himself from this fallacy. He asks ('Medical Journal,' p. 538, vol. for 1861):—"Has Alcohol the power to *increase* nervous or vital-force?"—and replies as follows:—"By *exciting* nerve-action upon the surface with which it is in contact, the *efficiency* of that surface may be increased (as vermicular motion in the stomach). By increasing *the force* of the heart, alcohol may promote vital-action in various parts of the body." I do not now discuss the truth of the fact, I impeach the integrity of the terms here employed. The word 'force' is used *ambiguously*. No one denies that alcohol *brings out power* from the organism. All irritants do *that*. If, therefore, because alcohol *excites* 'action,' it *increases* 'force,' it will follow that a blister *strengthens* the skin, and vomiting the stomach! The reply to the question—"Does alcohol increase nervous-force?"—is unconsciously evasive, when it is said—"the *efficiency of the organ* is increased"—for the question to be answered is, not about the organ's *expenditure*, but about the increase of *the store to be expended*. A man's 'force' or 'fortune' is not increased, because he *borrow*s money, representing the reserved value of his estate, and expends it upon an emergency. Dr Smith immediately afterwards allows that the *final result* is 'exhaustive.' Why, then, even talk as if 'action' was 'power'?—as if 'exciting' force was the same as *increasing* force?—as if 'spending' was 'getting'? But while the writing is ambiguous, Dr Smith is not deceived in fact: for he proceeds to ask, "Have we, then, in these actions, evidence that alcohol *has the power to (i.e. does) increase* nervous-force?" If it *does* do it, of course it has 'the power' to do it. His answer is emphatic enough. "I venture to assert that alcohol, *has no such power*; but that, on the contrary, *its direct action is to lessen* nervous (vital) force; and that in fact, in its degree, it is a poison of the nervous-centres.....As, if taken in a normal state, it would, by *deranging* normal action, interfere with the transformation of food, *it offers points of contrast with tea and coffee*, and cannot be regarded as Food."

heat-force, and that into STEAM-POWER: and as this is the *one* end of the machine and the fuel, anything which *aids* the Engine to *expend* its force (as forgetting to shut off the steam) would be—*coke*!

If this comparison, which is in all things parallel to the argument, is not simple enough for medical-men, I must try to give a simpler one. The argument of M.D. is as follows:—

1. The conversion of *food* into the organism is the condition of HAVING *force*.
2. The conversion of organism into NON-organism is the condition of EVOLVING *force*.
3. Ergo, whatever *evolves* force (like alcohol) is FOOD!

This syllogism of course, belongs to no 'figure' but one—the ridiculous and absurd—but I am not responsible for it, and cannot help it. The first and second premisses are true, but they are not *major* and *minor*, and therefore cannot warrant any conclusion, much less the fatuous one of the physician. If the reader applies the syllogism to an Ass,—and substitutes for 'like alcohol,' the words, '*like a spur,*' or '*like a whip,*' he will perceive the true scope of the pompous looking argument. No ass, however, save a bipedal one, would ever be deceived by it—the *quadrupedal* ass would be too wise to exchange even his Thistle for this Anstiean form of food!

§ 38. Professor LAYCOCK, thus discourses on Disease:—

"Noxious agents are formed within the organism during the natural processes, but in the state of *health* they are eliminated as rapidly as they are formed, constituting the secretions [excretions?]. If they are not eliminated, but accumulate in the organism, they cause *disorder* and disease [*i.e.* they interfere with nutrition, for mal-nutrition equals *malady*]. Again, noxious agents may be received from without (such as poisons, irritants, etc.), and these will generally operate in like manner as the retained secretions. In either case Nature seeks the restoration to health by attempts at *elimination* or removal. Unfortunately, civilized men are in a condition of body unfavourable to the exercise of the natural restorative powers."*

This seems pretty near the truth, because the excitements of a false civilization have *weakened* the stamina of men, and the

* *Encyclopædia Britannica*, 8th ed. Art. Medicine (1857). He says—"Medicine expresses the [artificial] *means* available in the Art of Healing." Surely not! A bandage, a crutch, a tourniquet, a splint, are not *medicines*, but adjuncts to the art. A 'medicine' is *that thing which heals*, or cures, in popular acceptation: otherwise, everything is medicine; food as much so as physic, light as much so as quinine or iron.

deterioration is still going on. Here it is pertinent to remark, that of all methods for the purification of the body, and the *elimination* of waste products from it, thus securing the most favourable conditions of 'Renewal' through nutrition, the most potent, and absolutely most innocent method, is that of the WATER-CURE, including its various applications. In humoural diseases, in obstructions, and in the early stages of fevers, its potency would be marvellous—were its mode of action only obscure, instead of plain and rational!

Dr LAYCOCK, however, falls into the platitude of SYDENHAM, that "All disease is nothing more than a vigorous effort of Nature to throw off the *morbific matter*, and thus *recover* the patient." But how could this be in the many cases where they do not 'recover'? How could disease be *nothing more* than an effort to throw off morbid-matter?—For, if said matter *did not injure* or *disturb* the body, why so intolerant of *its* presence? And if it *does injure*, then surely that injury is the prime and true disease, which must be distinguished from subsequent or synchronous *remedial* reaction.

At the World's Temperance Convention, a Trans-atlantic Doctor (editing the *New York Journal of Health*) who developed this old Sydenham theory to its logical extreme, announced that Drugs and Drink *do not act at all*, but are acted on! If Disease is the 'remedial effort,' *what kills* the patient when the remedy fails? *

§ 39. It is very pleasing to learn that the Homœopaths and the Allopaths approximate at one particular point. The first affirm, as we have seen (§ 33), that drugs beyond a *minim* dose, well attenuated, aggravate disease; the second are fast finding out, through their theoretical expositors, that the less drugs are dispensed the better! Nay, they even explain the cures of Homœopathy by the absence of physic and the pre-

* The *Journal* for November, 1865, commenting upon our 'Stimulants and Narcotics,' in reply to Dr ANSTIE, ascribes the article to Dr MUNROE, on whom it confers the honour of F.R.S., and changes our opponent into one Dr Austie! It says also, that "*we* (it) have said nothing about salts, arsenic, alcohol, etc., being physiologically *inert*, innocent, or neutral"! But the *Journal* says (p. 141), that "ANY INJURY INFLICTED upon the living organism, by whatever *agent*, or *means*, may be a CAUSE of disease." Very well, then, if the theorist will only stick to that, there is no ground of difference. If the agent *Alcohol* 'inflicts an injury' upon the blood, or nerve, or merely *would do* if not hindered, there is a reason why the living body should *repel* it—but not otherwise. Why should the body act, or re-act, *against* or *upon* what *does not act* injuriously upon it?

sence of faith! They quote, with admiration, SYDENHAM'S confession: "I often think more could be left to *Nature* than we are in the habit of leaving to her. To imagine she always wants the aid of art, is an error, and an unlearned error too."

In opening the late session of the London University Medical School, MR JOHN MARSHALL, F.R.S., Surgeon to the Hospital,

"Indicated that the conservative power, or so called *vis medicatrix nature*, was the agent to employ in the healing of an ulcer, or the union of a broken bone; but it was equally true that the physician or surgeon never cured a disease; he only assisted the natural processes of cure performed by the *intrinsic conservative energy of the frame*, and this was but the extension of the force imparted at the origination of the individual being. He dwelt on the relations of science to the curative arts, pointing out the necessity for an intimate knowledge of the living-organism on the one hand, and of external-tension incessantly acting upon it, on the other. He insisted on the fact that man was not only *in* but *of* the world, corporeally speaking; that if the world belonged to him, he also belonged to it; that his body was subject to physical laws of gravitation and cohesion like other masses; that the elements entering into his composition were in no way different from those that surrounded him; and that heat, electricity, magnetism, and light, permeated and operated within his frame. The student of medicine need not possess an extensive knowledge of the sciences, but it was requisite that he should be acquainted with the *general principles and more important facts* of all the sciences, general and vital." (*The Times.*)

§ 40. In this connection, I cannot do better than reproduce an instructive passage from one of Sir DAVID BREWSTER'S Inaugural addresses to the Edinburgh Students:—

"Among the advantages of a general knowledge of physical truths, one of the most important is its protective influence against credulity and superstition. In the discussion of questions of a medical nature, we *must not expect* that kind of evidence which we demand in matters of law, or of physical science. The principle of life, and the action of the mind on the bodily organs, introduce new and complex relations which expose all our reasonings to new sources of error. Hence it is, as Sir HENRY HOLLAND justly states, 'that it is the want of a right understanding of medical evidence which makes the mass of mankind so prone to be deceived by impostors of every kind; whether it be the idle fashion as to *particular remedies*, or the worse, because wide deception of some *system*, professing to have attained, at once, what the most learned and acute observers have laboured after for ages in vain.' In proof of this, he states the remarkable fact (writing in 1852), 'that during the last twenty years he has known the rise and decline of five or six fashions in medical doctrine or treatment, some of them affecting the name of systems, and all deriving too much support from credulity, or other causes, even among medical men themselves.' The difficulties inherent in all medical questions are increased tenfold in the examination of those 'sciences, falsely-so called,' to which I have referred. If medical men, highly educated, and occupying a distinguished social position, have been seduced from the sober paths of their profession into *new and ephemeral systems, which fashion sanctions and imposture sustains*, we need not wonder at the temporary success of wilder theories where the illiterate are the adepts, and the ignorant are the victims.

Who that is acquainted, even superficially, with the facts of electricity and magnetism, *can* for a moment believe that *similar* forces emanate from human hands, *rushing through non-conducting materials*, floating them even in the air, and imparting to them a knowledge of the past, the unseen, and the future. All such beliefs are the results of an imperfect education—of the want of general knowledge.”

§ 41. It is formally admitted, in the Lumleian lectures, delivered to the College of Physicians in 1864, that the profession is ignorant of the *Ætiology of Disease*, and at present unable to correct that ignorance! * Dr A. W. BARCLAY says, in his very preface, “I venture to call the attention of the medical profession to the *great want of logical precision* in the mode of reasoning which forms the basis of so many of our theories...The true meaning of Induction, the tests of its accuracy, and the value of its results, have been contrasted with the mistaken notion of it generally entertained, the fallacies which are accepted, and the erroneous conclusions consequently adopted.” And in opening his subject, he candidly confesses that *the profession* “are so little conversant with the rules by which these processes ought to be conducted, that we are *necessarily* to a great extent *incompetent* to detect the fallacies which are so often introduced into arguments assumed to be based on sound principles.” And again, towards the close of the volume, “the subject of *ætiology* is inseparable from medicine; it enters more or less into all our speculations, and very often modifies our treatment. *But it must be admitted* that at present it rests on a very insecure basis, *since very few of our theories have been at all proved* by inductive reasoning...Few rules of practice rest upon direct induction, and in them the process has never gone further than the establishment of empirical laws. This discovery has perhaps rather retarded than aided the progress of science. We know less about ague than we do about continued fever; though we can cure the one in a couple of days, *we scarcely know* whether our treatment *tends to help or to hinder* the natural process of recovery in the other.” He concludes by “calling attention to the necessity for a sure foundation being laid in correct induction, before we proceed to erect a system of Therapeutics.”

* *Medical Errors*. Fallacies connected with the application of the Inductive Method of Reasoning to the Science of Medicine. By A. W. BARCLAY, M.D., Physician to St George's Hospital. 1864.

III.—OF DOCTORS AND DRUGS

§ 42. GLASSFORD, in his 'Principles of Evidence,' says, that "in reasoning as to the probable effects of particular remedies in the human body, the conditions and circumstances of the latter are so various in different cases, and the number of concomitants is so great, that the utmost exertion of human sagacity, *founded upon the largest induction of particulars* which any one mind is capable of embracing and retaining, can do no more than approximate to that real evidence of which the case seems to be susceptible."

Dr A. W. BARCLAY, in his 'Medical Errors,' also says:—

"There seems to me to be no argument more fallacious or more opposed to sound inductive reasoning, than that which asserts the curative power of a remedy, because in ten, twenty, or even a hundred cases, recovery *followed* its administration; and yet this is what is commonly meant when Experience is appealed to. It is much to be hoped that scientific medicine may ere long be delivered from this, the oldest, the most obstinate, the most universal fallacy which has in all ages hindered, more than any other, the progress of knowledge, and has been the constant theme of logicians of all times,—the *post hoc, ergo propter hoc*;—the belief that a sequence necessarily implies a relation of cause and effect: and this not only in cases where the constancy of the association is so great as to strike the least observant, but where it has happened only in a few cases. Three or four rapid recoveries after the employment of a certain drug, are, I might almost say universally, cited by the correspondents of medical journals, as distinct evidence of its beneficial agency. The question of the actions of remedies, not with reference to particular forms of disease, but to the special parts of the organism affected by their presence; their influence in stimulating certain actions or functions which go on alike in health and disease, and *the difference of their action on the same tissue when in its natural state, and when altered* in some given manner, this, I think, is the direction which our inquiries must take, if we wish to establish anything like *laws* which shall guide our practice" (p. 119).

§ 43. The *Medical Circular* of January 25th, 1865, in an article on the Fallacies connected with the application of Induction to Medicine, has the following sensible observations:—

"It is indeed, amusing, although there is something melancholy in the reflection, to philosophize upon the manifold fallacies current in the present day among a generation of mankind who have before their eyes the lessons of legitimate reason as handed down to them by the logicians of former days, and strengthened by the lessons of schoolmen in all the great seats of learning in

the civilized world. But it is especially in medicine that such fallacies are most current, and it must be admitted that the delusions of the multitude are not so much to be wondered at, when the writings and teachings of some of the highest medical authorities are so deficient as they are in logical precision. One physician, towards the end of an epidemic, when its force had been worn out, proposes some hitherto untried plan of treatment, and because it happens to be followed by favourable results, he thinks he has made an important discovery; or another physician vaunts the efficacy of some peculiar drug in the treatment of a disease which, perhaps, would have subsided without its administration. Sometimes in such cases the premisses are sound and the conclusions are faulty; sometimes the premisses are untrue although the conclusion may be correct; and sometimes both premisses and conclusions are alike erroneous. . . . If we turn to the alleged effects of many of our best known drugs, we shall find *very much cause (reason) for doubting their efficacy, or even for distrusting their action altogether.* The drugs of which the efficacy is perhaps the most established are the purgatives; for very few people will doubt that Epsom salts and senna and jalap will act as aperients; but in reference to opium, who does not know that this narcotic sometimes keeps people awake, that ipecacuanha often fails to produce sweating, that conium is of doubtful efficacy as a sedative, and that digitalis often disappoints those who trust to it as a diuretic? But notwithstanding these circumstances, and many others we might mention, and notwithstanding the sceptical tendency of the age, *it is remarkable that the public faith in drugs is as great as ever; and it might even be alleged that the faith of the public is in an inverse proportion to that held by the Profession.*" *

§ 44. Dr MARKHAM, in the address to the Students already cited, gives a similar testimony:—

"Instead of reading them a homily demonstrative of their duties he would venture to occupy their attention, for a short time, by a few words on a phenomenon which was thought, by many estimable members of the profession, to be a deplorable psychological malady, characteristic of the present generation—he meant, *the existing scepticism concerning the effects of remedies over diseases.* There was here, as in other matters of belief, a true and a false scepticism, a reasonable and an unreasonable faith; and he hoped he might be able to satisfy them that the scepticism of the times so far as it was reasonable, was simply the search of honest and inquiring minds, guided by the light of modern discovery in pursuit of truth. In doing this, he should have occasion to refer especially to what appeared to have been two main obstacles to the advance of their knowledge concerning the effects of remedies over diseases. The first of these was *the unreasonable faith which they had been wont to repose in many remedies,* and the second was *the unreasonable practice, heretofore so common, and which they still sometimes pursued, of prescribing drugs in those cases in which drugs were not required for the cure.*"

* Here is an advertisement addressed to John Gull, in the daily papers, all the year round!

Third Edition, 1s., post 13 stamps,
PRESCRIPTIONS for the CURE of EVERY DISEASE
by 500 Physicians and Surgeons.

Another current humbug is Hunter's half-crown work on *Consumption* (and Consultation)! It proposes to cure by getting oxygen, by artificial means, absorbed in *extra* quantities. If the reader will turn to my *Works*, vol. iii. p. cliv., he will see why that is quackery. "No more oxygen is absorbed in an air very rich in oxygen, than in common, pure air."—(Lehmann.)

The real nature and mode of action of many so called Medicines are yet unknown. No one knows how Mercury or Quinine act, for example. "If," says Prof. BENNETT, of Edinburgh, "*quinine* be a narcotic in large doses, it is the only one of that class of remedies which is *tonic* in small doses. No doubt it is frequently given to convalescents and weakly persons who get better under its use, but *whether this is owing to the quinine*, or would not have occurred equally well without it, is a matter very difficult to determine." *

I do not condemn quinine, because much that we know of it tends to show that it acts like a BLOOD-FOOD (*hæmatic*) when it really confers benefit, after the fashion of Iron. "Quina," says Dr HEADLAND, "when taken in moderate doses, *is not excreted from the system*, but retained in the blood, like its analogue, Taurine. It being thus shown that Quina *adds something to the blood* (which is required), and it being granted that it cures certain disorders, a presumption is established that these disorders are connected with some *deficiency* in the blood which may be supplied by such an agent" (p. 159). †

The same author lays down a rule for the use of this tonic. "When Quina *stimulates*, it is inapplicable in fever, when it CURES, it does *not stimulate*" (p. 149).

Dr A. BILLING says:—"Tonics are substances which neither immediately nor sensibly *call forth actions* like Stimulants, nor *repress* them like Sedatives, but GIVE POWER to the nervous system to *generate* or secrete the nervous influence by which the whole frame is strengthened."

"This definition," adds Dr HEADLAND, "I would accept in a modified sense, considering that no permanent alteration in the nervous system *can* be produced without a primary impression *on the blood*." Just so—whatever *better*s the blood, improves *all* nutrition, and therefore increases nervous, as well as every other organic power. Will any one show that alcohol does this?

§ 45. I cannot leave this part of my subject, pressing as the want of space may be, without an illustration, in one special disease, of 'the wholesale slaughter' which follows in the merciless path of medical-theories and experiment. I draw attention, then, to a paper read before the London Medical and Chirurgical Society by Dr DICKENSON, on "the *treatment* of

* Principles of Medicine: by J. H. BENNETT, M.D. 3d. Ed.

† Action of Medicines. 3rd Ed.

Acute Rheumatism, considered with regard to the *liability to affections of the Heart* under different remedies"! The very title is ominous. The paper is "based upon a tabular condensation of the cases admitted into St George's Hospital during the five years ending December 31st, 1861, and in whom the heart was, on admission, unaffected." From the diversity of treatment, under the same roof, and amongst physicians in constant association, fourteen different tables of treatment are constructed!—and, we are told, "the method adopted in any case depended very much upon the *chance* of the patient (victim?) coming under one physician rather than another." Inflammation of the heart *has been* so frequent a sequel to treatment for acute Rheumatism that one celebrated doctor expressed his belief that such complications were the rule. It will be instructive to note, how, in accordance with the principles I have explained, two mischievous extremes meet—namely, *bleeding away* the strength or life, and *narcotizing* the life. What, in fact, can it matter how you drain away vitality, or, in other words, destroy the *conditions* of vital-action? If you bleed, you float off bodily the *complex* vital-fluid;—if you purge, or blister, you drain away the *salts* and *serum* of the blood, leaving the rest imperfect and starved;—if you administer alcohol or opium, you *deaden* the blood-discs, alter its quality, lessen its life, and arrest the functions of the controlling nerves necessary equally to the processes of nutrition and to special voluntary action. Look at the 'weapons' which these wise Doctors used, and see how deadly they became; not against the Disease, but against the Patient.

BLEEDING produced Heart-disease in every 2nd case.

OPIUM	"	"	"	3rd	"
SALTS of Potash and Soda	"	"	"	3 1-6th	"
MERCURY	"	"	"	4th	"
NITRE	"	"	"	10th	"
ALKALIES (Carbonates of Potass, etc.)	"	"	"	48th	"

The mischief descends, by regular gradation, with the strength—that is, the *poison-potency*—of the drugs. Lemon-juice, which contains both potass and vegetable acid, was highly extolled in the debate. Dr W. GULL observed that in *his* hands the alkaline treatment had proved a failure.

"He had used colchicum, Dover's powder, nitrate of potash, opium, etc., without satisfactory results: and was, therefore, content to keep the patient quietly in bed, so as to avoid disturbing causes, and to *support him on the simplest diet*—giving him a mixture to please and satisfy him, and lead him

to believe that *something* was being done, and he usually gave him a little extract of taraxacum (dandelion) *mixed with peppermint-water*. Amongst sixty-four cases so treated, he had scarcely had a case of heart-disease."

The other month, I noted, in volume 11th (3rd series) of *Guy's Hospital Reports*, "an account of thirty-six cases of Rheumatic Fever, treated, for the most part, with MINT-WATER: by W. GULL, M.D., and H. SUTTON, M.D." This is very significant as to the value of 'Simples,' and he must be a very great simpleton indeed, who needs that any one should elaborately 'point the moral' of *that* tale. In this case, at least, we reach to the old dramatic wisdom when we 'throw physic to the dogs.'

§ 46. I have in Section 51, spoken of the *Lancet* and its shallow impertinence in the terms which its effusions usually merit, but to it, as to the *Times*, some things do occasionally find their way deserving of approbation. Here is a bit of truth, under the head of 'Medical Annotations.' (March 21, 1863.)

"The progress of true medical science has greatly qualified our estimate of the value of mere drugs in the treatment of disease. *It has shown that in medicine, as in politics, the best course is often that of non-intervention.* The sore that used to be treated with a mysterious unguent composed of twenty ingredients, heals under a piece of moist lint; and the pneumonia that used to be attacked with heroic violence, gets well in less time under gentle doses of antimony and kindly allowances of *unstimulating* food. And all this without any detraction from the importance of the physician. The statesman who preserves the influence of his country, *at the same time that he husband's its resources*, is more worthy of public admiration than his rival who would attain no more than the same result by even successful wars. It is the same with the physician. The sooner he can cure his patient, and the less the expenditure of treasure—be it blood, or only mucus or serum—with which he can effect this object, the better. The more painless or even pleasant he can make his treatment, the more he can divest it of a '*perturbative*' character, the better is it and the greater is he. It is the growing characteristic of advancing therapeutics to watch the natural course of maladies respectfully, to regard pathological processes as only modifications of physiological ones, and to see in the worst forms of disease 'an effort of nature to throw off the morbid matter and thus cure the patient.'* Medical men never talked so modestly about 'curing' disease as now. *The number of specifics becomes less rather than greater.* We have stumbled upon something that cures ague—nobody knows how; and most of us still believe that mercury has some strange power over the venereal poison. But even quinine often fails, and the uses of mercury are becoming circumscribed, rather than extending. No *sound man* is very sanguine in his expectations of specifics turning up for every ailment, though every day is showing the value of measures founded on a rational study of the body and its diseases. Witness, for example, the use of alkalis in rheumatic fever, and of acids in fevers of the typhoid class. How simple is the idea of our duty! In the one case half an ounce of alkali, and in the

* In the next chapter the *Lancet* will be found eating up its own theory!

other a quarter of an ounce of mineral acid, would go far to exhaust our duty as regards mere drugs.

"The element of *physic in medical practice becomes constantly more simple*. Our drugs are fewer and less complicated. Of course it is all otherwise in *pseudo-medicine*. Here 'specifics' are as rank as weeds. Here little account is taken of natural provisions for the cure of disease. Here *physic* is everything, and nature and the physician [knowledge?] are unimportant.

"We conclude by impressing upon our brethren, who are studying medicine in the light of reason and science, the urgency of the duty that devolves upon them, of so using the element of *physic in medical practice* as to make more and more apparent the great gulf that is fixed between their practice and the rival quackeries of the day. Let them use medicine so that the most undiscerning patient will perceive that it is *only one of many means to an end, auxiliary only to great provisions in the body itself*, and for the most part acting, not mysteriously, like quinine, but sensibly, or chemically. Let the form of their drugs be unpretentious and inexpensive, so that, whatever the cost to the patient may be, he may understand that he pays, not for *physic*, but for the attention, the skill, and the judgment of the physician."

§ 47. The new *Pharmacopœia* reminds me of a remark in *Heberden's Commentaries*: that "the practice of *Physic* has been more improved by the casual experiments of illiterate nations, and the rash ones of vagabond quacks,* than by all the reasoning of all the once celebrated Professors of it, and *theoretic* teachers, in the several schools of Europe;—few of whom have furnished us with one new medicine, or have taught us better to use our old ones, or have, in any one instance, at all improved the art of curing disease. Impartial posterity has suffered each succeeding Master to be gathered to his once equally famous predecessors, to be in his turn equally forgotten." Everybody has heard the regular Practitioners decry and denounce their rivals, the innocent Herbalists, and by name such men as THOMPSON the American, and SKELTON, the Englishman. At the very time that the London College was denying the latter his examination, they were actually introducing "the new American Remedies" into their *Pharmacopœia*!—those which, for twenty years, had formed a part of the heretical system he practised!! Bark, through the Jesuits; podophyllin, etc., through the Herbalists; are, in fact, whatever their value, the gifts of the American Indians.

§ 48. Alcohol, it has been said, is *necessary* in Pharmacy, if not as a medicine, yet as an adjunct in the preparation of Tinctures. This, however, is an erroneous assumption, for Sir JAMES MURRAY, M.D., has for many years prepared excellent *Tem-*

* "The great success of Quacks in England has been altogether owing to the *real quackery* of the regular Physicians."—*Adam Smith*.

perance Tinctures (comprising the most important medicines) at a lower cost than the alcoholic. Some years ago, when lecturing on this topic in Ireland, I received the following note from Sir JAMES :—

“DUBLIN, Nov., 1862.

“Doctor Lees’s enlightened Lectures deserve all praise. As an enthusiast about using Temperance Tinctures instead of the eternal *excuse* of spirituous tipping, I beg leave to call the attention of Dr LEES to one single step in the direction of sobriety. You can see some at the Belfast drug-houses. I enclose a few outlines to explain them.

I remain, dear sir, ever yours,

“JAMES MURRAY, M.D.”

The *Pharmaceutical Journal* for October, contains a paper by Dr ATTFIELD, which shows how foolish is the assumption of the ‘necessity’ of Alcohol for any particular use. “It is,” says the *Lancet*, “the sequel of the discussion which originated in our columns concerning that King of Medicines, the tincture of *perchloride of Iron*. Dr A. shows quite conclusively, that *an aqueous solution is even preferable to the tincture*. The tincture is now made by diluting *one* volume of an aqueous solution of perchloride of iron with *three* volumes of spirit; let it be diluted with *water* instead. This is a remedy largely used in hospital and dispensary practice.” The Quinine-Wine, (i. e. bad-whisky bittered with quinine) is a similar impostor.

Even if alcohol were necessary, or best, in the *preparation* of medicines, it is not necessary that it should stop there. The Herbalists have various strong tinctures, or essences, which *keep* well, and have no taint of alcohol. The alkaloids can be partly extracted by the spirit in the first place, the alcohol then be distilled-off (to be re-used), and the *decoction* be reduced as much as is desired; and they will be all the better and cheaper by the alcohol saved.

§ 49. Professor GRAVES, M.D., of Dublin, in an address to the British Medical Association, last August, advocates the notion of Drs Watson, Alison, and Christison, “that the character of diseases has in our time changed from a sthenic (strong) to an asthenic (weak) type—from a condition in which the Antiphlogistic (bleeding and lowering) treatment was well borne, to one in which a *tonic* and stimulant* *supporting* system was found the best.” He draws the conclusion, that “if we hold, with Professor Bennett and Dr Markham, that the doctrine of change of type is untenable—we must believe that these (Drs Watson, Alison, and Christison) distinguished men, were themselves deceived—or

* Really, a narcotic mingled with a sustaining plan. L.

deceivers !” Very well, Dr GRAVES, be it so. They are not the first great ‘Medicine-men,’ in the history of the profession, that have been either one or the other. The *reputation* of men must not stand in the way of that intellectual Truth on which the welfare and progress of humanity is conditioned. But why should the type of disease change? Why should the laws of Nature become mutable and uncertain, because *your* treatment of disease alters? * The explanation is surely nearer than you, in your scholastic-bondage, ever dreamt. An entire generation of purging, drugging, and stimulating, *following* a century of drinking, physic, phlebotomy, and blisters, must, in the nature of things, and by virtue of the great law of expenditure, have *drained away* that constitutional power on which the old measure of *re-action* depended. We may see every day, in health, the *grand-son* of a vinous-man that some Sangrado used to ‘blood’ every month, who would not survive for a week, a similar, single operation upon himself. Has the type of *the race* therefore changed? No—it is simply a case of ‘drain’—the original force is gone: and gone by drinking and doctoring. Justly, and feelingly, said the *Medico-Chirurgical Review*, in January, 1861:—

“Would that some Physician of mature experience had opened the academical year by a *grave, unsparing exposure of the practices now in vogue*, of poisoning the sick and feeble with food, which in quantity they vainly strive to digest, of spoiling blood that is healthy, of killing that which is disordered, *of maddening the brain by wine, beer, and brandy without stint*,—thus quenching the intellect in its last expiring rays, forestalling the unconsciousness of death, and dismissing the patient drunken from the world! This is but a *reaction* we are told, from the opposite extreme of ten, twenty, thirty, or forty years ago—an *equivalent of slaughter* in compensation for the countless thousands who were then bled, purged, and starved to death. In this BALANCE OF DESTRUCTION, the result is one of small value to the statistician—to the Physician it is a double shame !”

Thus the wise and witty SIDNEY SMITH really indulged in no exaggeration when he said, “If I were to open a battery against Medicine, I don’t know where I should stop. Zenghis Khan, when he was most crimsoned with blood, never slaughtered the human-race as they have been slaughtered *by rash and erroneous theories of medicine.*”

* Dr GEORGE BALFOUR, of Edinburgh, has just printed a paper read before the Medico-Chirurgical Society there, entitled ‘Cullen and Gregory upon the Change of Type in Inflammation,’ in which he shows that the Pneumonia of their day was exactly like the Pneumonia of ours. Of course it is—the laws of nature are not like medical fashions: causes and effects go on as of old.

Of the havoc created by those twin superstitions of Drugging and Drinking, the Hydropathic Establishments bear constant and frightful witness, in the large numbers of prostrated patients that go there in search of health, often irrecoverably lost.

§ 49. The doctors themselves concede the *destructive* character of Drugs.

JAMES JOHNSON, King's Physician: "I declare it to be my most conscientious opinion that if there was not a single physician, or surgeon, or apothecary, or chemist, or druggist in the world, there would be less mortality amongst mankind than there is now."

Dr REID: "More infantile subjects are, perhaps, diurnally destroyed by the mortar and pestle than in ancient Bethlehem fell victims in one day to the Herodian massacre."

Dr PARIS: "The file of every apothecary would furnish a volume of instances where the ingredients of the prescription were fighting together in the dark."

Dr BAILLIE, after retiring from practice, said he had "no faith in physic whatever."

Professor GREGORY declared in his class-room that "ninety-nine out of every hundred medical facts are so many medical lies; and medical doctrines are for the most part little better than stark-staring nonsense." After thirty of the best years of his life spent in learning, in teaching, and in practising physic, he would not trust one paw of his great Newfoundland dog to a consultation of thirty, or three hundred, of his professional brethren.

Dr RADCLIFFE: "The whole art of physic might be written on a single sheet of paper. When I commenced practice, I had twenty remedies for every disease; but before I got through, I found twenty diseases for which I had no remedy."

Dr FORTH: "There is scarcely a more dishonest trade imaginable than medicine in its present state. The monarch who would entirely interdict the practice of medicine would deserve to be placed by the side of the most illustrious characters who have ever conferred benefits on mankind."

Dr MARSHALL HALL: "Of the whole number of fatal cases of diseases in infancy, a great proportion occur from the inappropriate or undue application of *exhausting* remedies."

Sir ASTLEY COOPER: "The science of medicine is *founded* on conjecture, and *improved* by murder."

Sir JOHN FORBES: "Things have arrived at such a pitch that they cannot be worse. They must end, or mend."

So men *should* think, after reading these testimonies, pronounced by the accredited leaders of the profession against their own faculty! The differences of doctors as to the treatment of individual diseases are well illustrated in the case of consumption. The celebrated STAHL attributed the frequency of this disease to the introduction of Peruvian bark; the equally celebrated MORTON considered the bark an effectual cure. REID ascribed its frequency to the use of mercury; BRILLOUET asserted that it is only curable by this mineral. RUSH says it is an inflammatory disease, to be treated by bleeding, purging, and starvation; SALVADORI maintained that it was one of debility, and that it should be treated by tonics, stimulating remedies, and a generous diet. Dr BEDDOES recommended foxglove as a specific; Dr PARR, with equal confidence, declared that he had found foxglove injurious.

Not content with differing amongst each other, the Doctors continually disagree with themselves. Sir BENJAMIN BRODIE furnishes an illustrious example. In 1813 he published a book on the diseases of the spine and the joints, lauding the advantages of calomel, setons, blisters, and bleeding, with long confinement to a recumbent position. In 1834, in a new edition, he confirmed what he had enforced twenty-one years previously. In 1850 he thus recants: "A more enlarged experience has satisfied me that, in the very great majority of instances, this painful and loathsome treatment is not only not useful, but absolutely injurious. For many years I have ceased to *torment my patients* thus afflicted, in any manner."

As Sir WILLIAM HAMILTON says, "the history of medicine is on the one hand, nothing less than a history of variations, and on the other, only a still more marvellous history of how every successive variation has, by medical bodies, been first furiously denounced, and then bigotedly adopted." *

§ 50. To combat a superstition so deep-seated as the faith in physic and physicians, I have been, like SOCRATES, compelled to say plain things. The people, as well as the profession, must know their real ignorance, before they can start on a course of genuine progress. They must have true *principles* and *methods*, or their labour will be in vain. Now one thing I have striven to make plain is this—that there is no magical or mysterious *potency* in Medicine to generate strength—which is health: that *all* DRUGS (i. e. elements foreign to the blood

* Vide Dr ELLIOTSON'S collection of instances.

and tissues) which in fact induce abnormal action (either excessive or defective), necessarily *impair* vitality.

“Whatever is Disease in state or essence,
Expenditure goes on, and *income* lessens.”

This is the plainest of truths; and being so, it remains for doctors to determine how that which *disturbs* the Ruling Power of the brain and nerves, so essential to perfect nutrition—to the force of the vegetative, as of the animal and voluntary functions,—that which *makes* no tissue, but poisons the vital current of the blood and partially deadens its red-discs—that which excludes the normal quantity of oxygen, and at the same time increases the amount of the retained *effete* and excretory matter—*can*, by any possibility, become a prominent medical or curative agent, or restore the *strength* of the system?

There can be no Science of Therapeutics until we have first settled our principles and methods. Nature waits to be questioned, but she must be interrogated, and interpreted, by *Reason*—not by ignorance, whim, haste, or prejudice.

“A therapeutic fact,” says Dr MARKHAM, “to be worthy of the title, should fulfil the following conditions: It should be the resultant of very numerous observations made by fitting and capable inquirers, who, after due investigation, had arrived *each at a like conclusion*—the conclusion not being contradicted by the observation of other equally capable observers. Were they not indeed, reasonably and logically forced to the conclusion that *the real virtues of a remedy had yet to be decided*; so long as the experience of half the world applauded its use, and the experience of the other half condemned it as useless:—when men of equal repute, and equal honesty, were totally opposed concerning its use? From this reasoning resulted, that, in every case in which there exists amongst competent observers, such discordance of opinion concerning a remedy, the true effects had not yet been decided. It was *the tacit and partial recognition of this truth which had given birth to ‘the rational scepticism’ of the day on the effects of remedies over diseases*; and as the truth spread, so would the consequences of an irrational belief, or, in other words, error, be eliminated from the practice of medicine.”

The same writer is equally frank and fearless in stating the moral obstacles standing in the path of honest practice.

“A great drawback to the advancement of their art, injuring it deeply both in its scientific and social aspects, *was the practice of prescribing drugs on all occasions, whether they were, or were not, required by the condition of the patient*. They were all of them in this matter *much under the pressure of CUSTOM*—under a somewhat naturally slavish adhesion to the habits of their forefathers. In this matter of prescribing, they were *living somewhat in the dark ages of medicine*. Were they, in so far as they kept up this *delusion* in practice, doing justice to their patients and themselves? and, above all, were they advancing the scientific standing and social character of their profession?

To this unfortunate custom of theirs might be traced the spread of many quackeries and delusions, and especially of that most remarkable of all delusions—Homœopathy. The patient had been educated in the belief that *the drugs* he took were, in all cases, the chief elements in his treatment; and this, even though the physic were as mild as coloured water, or as innocent as a bread-pill! The result was evident. If he recovered not, he blamed the drug and him who gave it, lost his faith in legitimate medicine, and so rushed into the hands of the homœopath. At this time of day they should come to another understanding with their patients. It was unworthy of the medicine of this day, to *play in any way to the false imagination of the patient. Medical men had created the delusion in the patient's mind, and it was their duty now to remove the scales from his eyes.* Medicine was a stern and rugged business. Whoever tied himself to it as to the business of his life, must not expect to float calmly down the stream. He must be prepared for struggles, and ready to encounter hardships. There was no profession which brought more trials to the conscientious man, for *there was none in which a want of conscience and of honesty was so frequently rewarded with what he would call great success.* The judges and arbiters of a professional man's skill and success were the public, who, he need hardly say, were *utterly incompetent* so to act. If he alluded to this dark side of medicine, it was because he would earnestly beg them now to steel their minds to an unswerving adherence to duty, which taught them *so to study as to become men of science.* The greatest safeguard against the contagious influence of the vile quackeries which beset their profession, both within and from without, was a well grounded scientific knowledge of their art. It was a consoling fact, that men of science did not practise quackery in medicine"—or rarely.

This is very true; because the genius of Science is the love of Knowledge and Truth—of the laws and works of God—and not the sordid pursuit of gold for the ends of selfishness and vanity. When you find a man pandering to popular prejudices, or appetites, or class interests—no matter what his *titles*—we may be pretty sure that 'the Spirit of Science' dwells not in *him*.

There is, however, a still more fundamental problem to be solved—namely, How *can* Drugs cure? On what principle, or in what way? How can either that which *wastes* force by excitement and irritation, or that which *depresses* force by narcotization, contribute to *strengthen, i.e. vitalize, injured structure or diseased organ?* Dr INMAN, in his 'New Theory of Disease,' Dr KING CHAMBERS, in his 'Clinical Lectures,' and even Dr ANSTIE, are all arguing for the *restorative* treatment of Disease as the grand aim,—by which is meant the use of those things which *support* instead of prostrating vitality. When this idea is worked out, how many *drugs* will be left?

IV.—OF DOCTORS AND DIALECTIC.

§ 51. The *Lancet* has said—and though a very bad judge of reasoning, it may be accepted for the nonce—“*In no assemblage for discussion, do we meet with such proof of UTTER WANT OF LOGICAL DISCIPLINE OF THE MIND, as at our Medical Societies*” (Feb. 19th, 1853). This dialectical diarrhœa nowhere finds more prominent outlets than in the anti-teetotal diatribes of the *Lancet* itself, which, for twenty years, has retailed a series of chemical and physiological fallacies that science, year by year, has as regularly refuted and rejected. From its December article, just out, we cite three passages to show what it writes for ‘the lewd and baser fellows of the Profession.’

“If these *fanatics* could be impressed with the conviction of the *immense injury* which they do to THE CAUSE they advocate, by their wholesale and indiscriminate statements, they might *stand aghast at the evils which they are inflicting* upon the community.*

“If, because water is natural to man, he should *confine himself* to water as a beverage, why should he not at once return to what is *natural* to him in other respects?† Man in the state of nature clothes himself in the rude habiliments of the savage; he haunts the woods, and lives upon food which is *not* suitable to the wants of civilized mankind. The fact, in short, amounts to this: *the most unpractical people in the world are those possessed of a crotchet*. They look not upon mankind as they are, but as the enthusiasts themselves would desire them to be.‡

“The truest friends of temperance are to be found *in the ranks* of the medical profession.|| The reason for this is obvious: they are called daily to

* Will saying the *lie* that Medical-men, by their prescriptions, do *not* thwart our temperance efforts, do our cause good? And *how* will our affirming the truth so vastly injure the community? Will the *Lancet* translate its big and ambiguous words into plain terms?

† The abstainer does not ‘confine himself to water’—for he takes water *and* tea, *and* coffee, *and* cocoa, *and* milk, *and* fruit-juices, *and* unfermented wine. Neither does he believe that *natural* cold, and *natural* conditions, are always *best*. He leaves the *Lancet* to muddle itself with such equivocal words. As he abstains from alcoholics *because* they are injurious (not because they are either natural or unnatural), so he takes all kinds of food that are *suitable*, whether natural pine-apple, or cooked apple-pie; whether ripe-plums or boiled-pudding. *Why*, O logician of the *Lancet*, should a man who rejects *unsuitable* drink, *therefore* rush to the use of *unsuitable* food? *Why*, because he refuses raw-rum, should he swallow raw-carrots?

‡ Do abstainers do less work than other people? Do they do it less well? What does the *Lancet* mean by *unpractical*? It is simply this—that we will not give up our great truth for the *Lancet’s* great falsehood.

|| Yes!—*in* the ranks: but what we regret, is, that *the ranks* are not our friends, but our deadliest foes. We know of *no service* that the ‘rank and file’ (or rather, looking at the language of the *Lancet*, rank and vile,) have rendered to the cause—whatever a few of the ‘Officers’ may have done. No doubt, Mr Coroner LANKESTER ‘witnesses the evil effects of intoxication,’—but how does drinking and lauding alcohol get rid of the effects?

witness the evil effects of intoxication; they are influenced by the *puerile* and *unpractical* theories of MONOMANIACAL ENTHUSIASTS; they treat the question at issue on a broad, common-sense basis, and thus render service to their fellow-creatures, which is only too frequently marred by dreamers and 'philosophers.' "

This smells of Brandy-and-water, with a dash of Buxton's Beer; and I preserve it in my pages as a future 'Curiosity of Medical Literature.' The specimens are plentiful enough, but I perceive signs of a brighter day, when better-men, with better mental discipline, shall displace the weak and windy writers who now dispense such literary heavy-wet.

§ 52. Dr WILKS, of Guy's Hospital, having published a remarkable batch of typhus cases, successfully treated *without Alcohol and Drugs*, the *Lancet* displays its logical abilities in the following style of criticism:—

"The increased use of alcohol has coincided pretty closely with the prevalence of a theory of disease which is enticing from its very simplicity. All disease is a form [state] of debility. [How can a negation have form?] A semi-solid exudation in the tissue of the liver, a layer of lymph on the interior of the pericardium, quick pulses and slow pulses, are so many different forms of this universal-disease of weakness."

If the *Lancet* means this for ridicule or refutation, it simply makes itself ridiculous. It is the weak victim of big words: and might as sensibly have said, "A red Indian, a black African, a brown Spaniard, a white Welshman, are so many different forms of the *universal-form* of Man."

Disease has not a form; and if it had, there is no *universal* form of it, any more than an universal Ass or Editor. Disease is a *disordered* state of an organ: there may be a diseased eye, or skin, but not an eye or skin of *disease*—a weak leg, but not a leg of weakness. The states and processes to which the *Lancet* refers are 'results,'*not forms: and if they are not *right* results, then the organs in which they are, must be wrong. Is 'strength' wrong? Is 'weakness' right? Is diarrhoea a proof of strong-bowels? Is the hæmorrhage from the drinker's lips or anus, a sign of strong-toned blood-vessels? Why do cells *exude* their contents, if they have strength to hold them? Do sound vessels leak, and *unsound* ones retain their contents? Let any one think, and he cannot escape the conclusion that the word *Disease* always connotes a *state of defect*, not that which is perfect; a state of less, not more life. What indeed, is 'vitality' but a special exhibition of *Force*; the degree of which is the degree of the vitality. The *Lancet* adds:—

* For our definitions and descriptions of Disease, see pages 5, 6, 9, 11.

“Weakness is a somewhat vague *thing* [not a *thing* at all—but a STATE], defying the definition of the physiologist and the analysis of the chemist. [Chemists can’t analyse ‘states.’] But it is a popular term which every man, is, unthinkingly, apt to think that he understands.”

How a man can without thinking be apt to think, I *cannot* understand: but I quite understand the word ‘weakness.’ The *Lancet’s* argument, to wit, is a perfect illustration of logical weakness—*i.e.* of a capacity that falls short of doing what it pretended, and in its feebleness of insight, perhaps expected, to be able to do. Weakness is *inadequate* power: or powerless where it should be *more*. A not-able Editor is ‘weak’ compared with a notable Man. Strength is capacity *plus*; weakness, capacity *minus*.—One sample of *Lancet* laxness:

“The only thing more remarkable than the extensive reception of this one notion of disease, is the spread of a belief that alcohol, in some form or other [some form!] is the panacea for it.”

This is not the historical truth. The false belief in the *supporting* character of alcohol, which the *Lancet* has itself fostered for the last twenty-five years, is that circumstance that alone has done the mischief. Bleeding was wrong, purging was wrong, starving was wrong, but *feeding* was right: and the error was in believing that alcohol was feeding.

Whatever *nourishes*, or aids that process, does good both in health and disease; for the process of nourishment is the conveyance of *strength* into the organ nourished. Right-structure brings right-function, *because* it is the same as strength or health—it is vitality imparted. As Professor BENNETT says, “the result (injury) *can only be remedied by the natural-action of ordinary cell processes*”—and that action is the converse of ‘debility’ or ‘disease’—it is ‘ability’ and ‘ease.’

§ 53. The New York *Herald of Health* for August, 1863, published the following extraordinary announcement:—

1. “The Hygienic philosophy reduces this mysterious problem of the ‘Action of Medicine’ to a *simple* truism, by a reference to the primary premiss—MEDICINES DO NOT ACT AT ALL; drugs are dead, inorganic, inert substances! They do nothing--*they are done unto* (!) They do not act—they are acted upon (!!) *This is the law of the universe.* (!!!) There is no *affinity* [or repulsion?], and can be none, between drugs, medicines, poisons, and *living* structures” (p. 220).

2. “The Hygienic school teaches that in the *relations* between dead and living matter, *all action* is on the side of the vital organism, and *none whatever* on the part of the external object; and in this solution finds the rationale of all forms of disease and all kinds of remedies, as well as the *key* to the interpretation of *all* problems of medical science.”

An American ‘Hygeist,’ has requested me to take “very

particular notice" of *this* theory: "that, in the RELATIONS-BETWEEN dead * and living matter, the *living* only is ACTIVE."†

Why, then, does he quarrel with my phrase—"co-actions"—which are between-actions? How is arsenic or alcohol *related* to the stomach they *injure*, if they do not *act* upon it? And if they do act, and are *not* 'inert,'—then they are CAUSES or agents of *injury*. Are there, then, 1st, the agent alcohol—2nd, the injured part or patient; and, 3rd, THE DISEASE (or remedy)? Will the Hygeist tell us, vich be Vellington and vich be Blucher?—or in other words, will he *distinguish* the injury from the disease? Since he declares, with his characteristic diffidence, that my term "re-actions of the living system," is "a nonsensical phrase," will he tell how it differs from *his* 'remedial effort'?

But accepting the old phrase of SYDENHAM, "Disease is remedial *effort*,"—let us look at the facts it is supposed to designate. It is the organism *in act* (*i.e.* acting). Well, now, what is *it* doing when you give a purge, or a blister, or even bleed? Is it growing stronger? When you bleed, the pulse may 'quicken,' but is *that* a proof of increased strength? Does the *serum* that flows out so rapidly in cholera from the intestines, *nourish* them?—and if not, how can the act strengthen them? The 'injury inflicted' must be either 'altered' structure, 'altered' function, or both. Now, in any case, how can the *flowing out* of normal blood-matter (whether white or red, mineral or organic), REMEDY defective structure, and consequent weak function? The 'INJURY,' as this Hygeist admits, is the *first* thing,—'the *cause* of disease—the remedial effort—is the disease itself.' Very well, call it so, and what then? Are *serum* and *blood* flowing out, curative? If you cure

* Why 'dead,' if it never *lived*? Can a man be called a widower who was never married? Can that be *dead*, which never lived?

† If 'active' means that which *acts*, then every agent (not only arsenic, but a stone) is active: if it means, 'moving-of-itself-about'—then the Hygeist merely says that 'the living only is *living*'—or active, like living things, (whether a sponge, or a sperm-whale). It matters little, however, in what new fangled ways you choose to designate the fact—the *relation* itself remains just the same, and nobody is any wiser for the logomachy. In fact, the theorist has not told us *what* the relations are, because he does not know any more than his neighbours. He knows that an 'emetic' sickens, through an action upon the nerves and muscles of the stomach, which contracting, *expels* its contents: but what of the *relation* between the drug and organism? Had the nerves and muscles *nothing done* to them by "the offensive material"? If so, why call it 'offensive'? If they had, explain yourself *what* it was. They cannot be offended at nothing.

the 'injury,' it is what everybody hitherto means by rectifying the 'disorder'—*i.e.* getting the body out of a *diseasey*, into an *easy* state: but that can be done only by healthy blood flowing *into* the organism, and being *taken-up* there by the 'force' of vital *attachment*, and so building-up the structure nearer to its original condition. Every action of the organism not concerned in doing *this*, is attended by a fresh loss of *substance*, and therefore a fresh loss of *power*. Instead of explaining himself, the 'Hygeist' proceeds to put what he deems a puzzling query!

"If the Dr should swallow a full dose of ipecacuanha, he would probably have the disease called *emesis*—the action usually termed 'vomiting.' Will he inform us what '*injury* was inflicted' by the drug, constituting the first part of the disease, and what 'reactions' occurred?"

An histologist can very readily answer this question. Ipecac is a neurotic which *irritates* the Vagus Nerve, and thus induces the muscles to contract; and it produces the same effect even when *injected* into the blood. If air and water, whether in the state of cold or heat, can 'stimulate,' and 'influence,' and 'insure subsequent *re-actions*,' why not drugs and drink? * The Hygeist admits that the drug must *first touch* the organism, and that, second, the organ exhibits the *action* of vomiting. Well, that *is* re-action. If he persists in *unsaying* the admission that there *was* no 'injury' produced—that 'irritation' is *self-inflicted*—that ipecac did nothing, or nothing bad—that the 'drug' was not an '*offensive*' material, as he had just called it, or that 'offence' is *an act without action*, we can only hope the Hygeist has some kind friends to look after him. †

"If a man should be *killed* with lightning [or *scalded* to death with hot-water], what Disease would RESULT FROM (!) the injury, inflicted by the destructive agent."—p. 141.

* On the 4th page of the *Herald of Health* from that which contains the question to Dr MUNROE, is the following concerning the Turkish Bath:—

"I find the bath *highly tonic*—the ACTION of temperature is favourable to growth and nutrition. High temperature acts in the double *capacity* of first giving the invigorating *influence* of Nature's own *stimulant*, and thus *insures* the subsequent RE-ACTION by cold air or water—these *acting* in their own peculiar manner. Sores heal better under a high temperature, and perspiration induced by *passive* means [he means, when the *patient* remains passive] cannot weaken."—A. L. WOOD, M.D. (of the Hygeio-College.)

† The *Herald* contains Advertisements of Hygienian books which speak of the 'EFFECTS' of alcohol, and of the *modus operandi* and EFFECTS of Drugs. These, then, must be part CAUSES of *effects*—and what produces effects cannot but act. Cause is power *producing* effects; and if, therefore, drugs and drink have *effects*, they are producing 'causes': in other words, they are active, or acting, which makes them *Agents*.

Why, the injury inflicted would *be* the Disease—the disease technically called ‘Nervous Shock.’ The man dies of it, just as truly as if the injury had been produced by the repetition of a thousand, successive, lesser shocks. The only difference in the two cases would be, that in the modified damage, we should witness a *struggle* for life—*i.e.* the ‘strength’ remaining would do battle with ‘the destroying force’—the powers of Composition would strive with the tendencies to *decomposition*. If the Hygeist chuses to call the *resisting*-efforts (which are inextricably mingled with the diseased-functions) by the name of ‘Disease’ (we call only *false-action* disease), that is purely a question of taste, or intelligence.

§ 54. Everybody has heard of the Pills and Ointment that *cured* the mythical Lord Aldborough’s sore-leg (and ham) of forty years *standing*! And what leg would not be sore after such a trial? Now the Professor assures us—*he* of the HOLLO-WAY—that his “Pills and ointment are compounded so as to act *harmoniously*.” No doubt of it: they *sell* together, they *work* together—and here is one little truth about the taking of them, which saves them from being an ‘entire sell.’

“Five *pills* night and morning. *Ointment*, well rub over “the affected parts, in gout, lumbago, etc. ABSTAIN FROM ALL “INTOXICATING-DRINKS, AND THE MOST DESPERATE CASES WILL, “with a little perseverance, COMPLETELY YIELD to this treatment.”

A man curious in reasons however, will be apt to say—Here are three *antecedents*—‘pills, grease, and teetotalism’—how am I to know which *did* the cure? Well, on the one hand, myriads of Temperance men testify that *abstinence-alone* has cured them of gout, rheumatism, etc. On the other, we see that *drinking-alone* produces gout, rheumatism, etc. While, in the third place, we have the confession of the Pill-vendor-and-Quack-salver himself, that pill and ointment cannot succeed *with* drink. Who is so dull as not to see the fallacy of ascribing the ‘cure’ to the ‘physic,’ rather than to the cessation of the disease’s *cause*? The people repose the same implicit faith in the ‘Family-doctor,’ that pill-purchasers do in quacks: and the paralogism is precisely the same, whether illustrated by the one or the other.

Dr W. B. RICHARDSON, in his ‘Clinical Essays,’ illustrates another form of the fallacy. He believes that the *hot* brandy *and* water often beneficially given by the by-standers in paroxysms of cardiac apnœa, does good—by virtue, *not* of the *contained alcohol*, but of the “*diffusible caloric conveyed by the*

water," according to the law "that without a due measure of caloric, a muscle must be spasmodically contracted." Thus the rapid inference of the unthinking crowd—the alleged 'experience' of grog being good for spasms, the faith of doctors and patients for centuries,—turns out to be a miserable inconsequence, a 'vulgar error,' into which no mind trained to thinking could possibly have fallen! How many others, like it, are still retained with the tenacious grasp of believing ignorance and infatuated appetite?

That PORTERS and STOUTS, as generally consumed, contain *picrotoxin* and *strychnine*, I have no more doubt than of their containing hop, water, acetic acid, and alcohol. I have an analysis of *Dublin Porter* before me, which, besides the water, gives 12 distinct ingredients, and, under a thirteenth head, '*Extractive-matter*,' a term that disguises and includes the Hop and other Drugs. Now, when this filthy beverage is prescribed as physic, may I not say that the Physician is indulging in a disgraceful *Polypharmacy*? May I not ask him to tell us *for which* ingredient he prescribes it, and *to which* element he traces the real or fancied good that may, and sometimes must, *follow* its use? When Doctors prescribe porter, do they know, or care, what elements it contains? Have they an attested and trustworthy analysis of this complex composition? On what principle, then, can they allege that *Alcohol* was the one beneficial agent of the mixture; or, in truth, how do they know, how *can* they know, that it was not even a hindrance to the *materia medica* swallowed along with it?

Take a case. I was staying some years ago, at the house of a gentleman whom I will call Mr SIDNEY. He had been a teetotaler, but at that time was drinking *porter* by medical-advice, for a liver-complaint, which had sadly interfered with his ability to attend to business. As he expressed a wish to do without the 'stuff,' I inquired into his case. *Wine*, I found, had been first ordered, taken, and failed: yet Sherry contains alcohol. *Pale-Ale* was next resorted to, and failed: yet *Pale-ale* contains alcohol. *Dublin Porter* (that kind only) said the Doctor, * was then prescribed, and a glassful consumed daily at dinner. *Improvement followed*—but not cure. If he gave it up a day or two, the old state recurred. Clearly, then, said

* Of course that goes for what it is worth. Buxton's *Stout* might have done as well. I don't suppose that the *peculiarity* was in one's containing *strychnia* or *cocculus*, and the other *not*. Since both contained *Alcohol*, alcohol was not the 'specific.'

he, it is better than nothing. Clearly, retorted I, not *because* of the 'Alcohol,' for you had that in the wine and ale, and could get it in any other stout or porter besides the Dublin-brand. But what shall I do? Well, said I, let me examine the porter; I will go to the Chemist with it, and you shall have it when I have done with it. He agreed; and the porter—several bottles of it—had, unknown to him, all the Alcohol *expelled*, and was then returned to the bottle. It certainly tasted more like physic, as he said. It was not so palatable—but never mind, if it does good. It *did* good. On the third morning, Mr SIDNEY looked better, and felt better: there was no longer the old 'stupidity' of which he had complained. The *physic* was none the worse for the elimination of the Alcohol. Alcohol, then, instead of being the real medicine, was the *marrer*. A week or two later in the Autumn, I wrote to the Chemist instructing him to return the porter sent for 'analysis,' without the alcohol being *distilled-out*; only to nastify it a little. I next heard that Mr SIDNEY had a return of the old 'stupidity,' and wondered what had been *done* to the Porter! Again, the Porter was given with the spirit eliminated, and again the patient confessed the benefit. The test was now complete, and on being told of the facts, he became thoroughly convinced of the alcoholic imposture. I have before me now, as I write, the Chemist's letter, dated the February following, informing me "the patient was so restored by the *unalcoholic* porter that he had taken his last dose before the New Year came in."

Does any one inquire, *What* did it? I answer, "Probably the *cocculus*, or *strychnia*; because I had myself, in a similar complaint, received sensible benefit from the last-named agent, administered in extremely small doses: at any rate, the medicinal agent was *not the alcohol*."

§ 55. The medical profession, like every other that has ever been petted and privileged, is essentially conservative. It clings to the old, and obstinately opposes the new. Yet, as we have seen, within its own circle, among its own disciples, an undying warfare has been carried on between Authority and Truth. The young and ardent disciples of Physic, inevitably affected by the philosophy of their time, are ever questioning the decrepid 'opinion' of the past, and demanding that it shall justify its existence by the evidence of facts and reason. Protests against medical dogmatism, like protests against all other attempts to put Reason into fetters, have

necessarily arisen, constituting the steps of progress in medical science, so far as it is Science at all. Prior to any detailed discussion of my last problem, I will briefly indicate the opinions that have in succession been held and propagated by the medical schools as to the relations of Alcohol to the human Organism, and each of which in turn has had to vanish before the light of science and the demonstrations of daily life.

The period of darkness and of absolute faith in strong-drink, dates within the limits of time when George the Third was king. It was a condition of total national blindness, wherein neither doctors nor patients ever dreamed that alcohol was not a daily necessity, as innocent as water and as valuable as bread! But at the close of the great war men began to think once more, and inquiry and science started forth on a new mission destined to change the entire aspect of the social and physical world. Doubts were engendered, causes were sought into, and truth emerged. BEDDOES was succeeded by CARRICK, and CHEYNE, and Sir ASTLEY COOPER, who declared that '*spirits and poisons are synonymous terms.*' COMBE and HOPE and BILLING, and other men of that high class, followed in the track; and as the distilled form of alcohol became discredited as a beverage amongst the intelligent portion of the profession, examination of the facts rapidly spread amongst the outside and deeply interested public. But Superstition, especially when sustained by appetite, is like a limpet, and holds on to its barren anchorage with a singular tenacity of life. Hence, no sooner had the doctrines of LIEBIG been promulgated, than they were at once misinterpreted and misapplied. In 1843, I had my debate with Mr Surgeon JEAFFRESON. He said—"If alcohol could not nourish, it could at least warm; for it had been *discovered* that it was an element of combustion!" After a long reign, during which doctors and *litterateurs* wrote much that was absurd about 'carbon,' it was at last demonstrated that alcohol was *eliminated* from the body in great part as alcohol, while there was no proof whatever that *any* portion was decomposed or burnt-up. A third theory then shot-up on the continent from the fertile brain of Professor MOLESCHOTT, who alleged that if alcohol was not food itself, it made food last-longer; and, therefore, that brandy was a savings' box! On the same principle, the pipe and the opium pill must be regarded as provender: and so, for awhile, it was contended, by some few consistent Vinous-enthusiasts, that tobacco, opium, arsenic,

and alcohol were 'diet'—extra-diet! Very extra-ordinary! By and by, however, this theory was found to mean that the more you kill the molecular life by narcotizing it, the less life there is either to kick or kill; therefore the less waste; therefore the less need for food to supply the waste.

“Only this and nothing more.”

So, in spite of the pap dealt out by JOHNSTON, LANKESTER, and LEWES, the thing was suffocated under the weight of its own ridiculousness; the wisest of its patrons, Dr CHAMBERS, read its burial service; while Mr *Punch* sang its requiem in a famous song.

As I tipple my Drink, I jollily wink at you,
“And delightfully save the destruction of tis-sue!”

Dr ANSTIE next stepped in with another saving theory. If alcohol cannot nourish, or warm, *in fact*, then it must be made food in some new and extraordinary sense of *the phrase!* In this, at least, he accomplished no questionable success; for we had a dull and dear book of 500 pages, laboriously devoted to prove that alcohol, in certain doses, *is* a poison, in other doses a stimulant and a tonic, not a poison; which re-defines all the meanings usually attached to the words; which shows that food is medicine, and medicine food; that stimulants are tonics, and tonics are stimulants, and food is both; and, therefore, that alcohol is food! The incredulous reader is assured that this is the gist and substance of the argument, stripped of the elaborate periphrases which cover and conceal the lengthened absurdity.

§ 56. In the very 'introduction' Dr ANSTIE mis-states the doctrine he professes to refute. Who has ever said that *all* the *results* of the use of alcohol, in *all* doses, are 'the same essentially'? Nay, what can be meant here by this word 'essentially'? Much of his book, as well as much that has been written by writers less learned, is a mere confusion and chaos of words. The cardinal fault is the absence of definition, arising from the absence of clear conceptions on fundamental relations. Now, affirming, for the sake of argument, *that alcohol has a fixed disturbing relation to living tissue and to blood corpuscle*; that every appreciable dose, brought into contact with the smallest point of muscle, nerve, or cell, is followed by an unnatural contraction, or a destructive dissolution,—what force have his earliest illustrations against this position?

Common salt, says he, is food in small doses; an emetic medicine in medium; a fatal poison in larger. "It is plain," he adds, "that the first and second of these actions are not physiologically continuous. The food action consists of being absorbed into the blood."

Now is it not undeniable that we have in *Diet* a class of substances which, taken in considerable quantities in health, produce none of these effects: while in *Drugs* we have a numerous class of things the use of which regularly, almost universally, is followed by such disturbances—generally in very minute, and always in comparatively small, doses? Dr ANSTIE is bent on the Quixotic scheme of abolishing this broad distinction, by what is certainly a very obvious assumption and sophism. The source of the fallacy consists in regarding action as one-sided. When the soda and the acid are mingled in the common effervescing draught—*which* acts and *which* is inert? Plainly, there is a mutual affinity and a mutual-repulsion among the elements concerned; it is an example of *co-action*. A strong corrosive agent, capable of acting upon dead tissue, will of course not lose its power to act upon the living.* Will it, so far as it acts at all, act differently? No, but the 'result' will be different; while 'the tendency'—its own law and direction of force—will remain the same. *The effect is a joint result, whereby one direction of force modifies another.* For example, let a man slip from the joists of a bath house when the water is out, he may fall twenty feet, and break his bones upon the flags. Let him slip when the water is in, and he will fall only fifteen feet to where the water meets and sustains him, and float unharmed on the top of it. 'The pressure,' 'the tendency,' the push-or draw-downwards, is just 'the same essentially,' but it is resisted or overcome by another condition, or rather by the same tendency modified—the gravity of the water. "It is manifest," as HOBBS long ago remarked, "that efficient and material causes are severally by themselves parts only of an entire cause, and cannot produce any effect *but by being joined together*. So, also, *power*, active and passive, are parts only of an entire power; nor, except they be joined, can any act proceed from them; and, therefore, these powers are but conditional—namely, the *agent* has power if it be applied to a patient; and the *patient* has power if it be applied to an agent; *otherwise, neither of them.*" † The doctrine of the fixed character of

* Witness the Hygeist plan of using *Caustic* to eat away *Cancer*. (Herald of Health.)

† On the First Grounds of Philosophy. Chap. 10. sec. 2 (1665).

alcohol, then, is no more refuted by Dr ANSTIE'S illustration than the uniform tendency of gravity in the case of the falling-man. The 'actions' he speaks of, are the results of two sets of forces, and must of course be different under different circumstances; but, as it would be absurd to say, that since 'breaking the bones' and 'floating' are plainly different 'results,' therefore, '*falling*' is not essentially the same; so it is equally absurd to say, that *because a certain amount and tendency of salt can be resisted, and a certain quantity utilized, but a larger quantity cannot, or cannot effectually,—therefore there is no tendency to 'irritate' in the first dose, and each particle of that salt has a relation to the living tissue different from that of the second dose!* * He confounds the share of one element of causation with that possessed by another; and, finally, identifies the 'result' with a single force or action concerned in its production! In noticing the experiments of Dr HAMMOND, who found that while a dose of alcohol, with full allowance of food, sensibly disordered him, with stinted food it left him in a pleasanter condition (a case only proving that of two evils, namely, the absence of food or the presence of a little alcohol, the latter may be the least of the two), Dr CHAMBERS observes, "we cannot doubt that the *essential action* of the alcohol was identical in both cases; but in the last, *the blunting of the nerve-force was requisite for perfect life; in the first it was not wanted, and was, therefore, injurious.*" In commercial, as in physiological life, it may be requisite or expedient a man should borrow money in some exigency of trade or panic of the market, even at heavy interest; but who, save a purblind theorist, would on that account enter upon an elaborate argument to prove that 'borrowing' was not a dangerous course to pursue; or that it would not be followed by some kind of loss; or allege that it was a legitimate provision of mercantile pabulum, and was in fact as profitable as any other kind, or indeed all the same with any other? The remark of Dr CHAMBERS very well disposes of the revived argument for narcotics, drawn from the fact that in many nations and ages we find people addicted to their use,—that it is a *custom* alike of Mohammedanism, Judaism, and Christianity, as are so many common follies and common sins.

* Salts are required in the blood to hold fibrine and fat in solution; and are therefore *chemical food*. So is Iron—and so called in the form of Syrupus Ferri Phosphatis Compositus. But what organ *wants* alcohol? The *excess* of food is bad, but *poison* is bad in *all* quantities.

The occasional use of artificial alcohol is right, in certain diluted forms and in very small doses, at least in certain states of incipient disease—runs the argument—*because some hundreds of millions of people in the last 4000 years have been in the habit of using to excess* (both as to time and quantity) the naturally provided narcotics of opium, hashish, coco, and tobacco! Now people who are *uneasy*, naturally enough desire ease; and, therefore, rush to *any* agent (created or made) which, as they have learned, possesses the property of ‘blunting their sensations.’ How we get beyond this fact, or justify the wisdom or innocency of the practice by repeating it, whether as Jews, Christians, or Mohammedans, I fail to see.

§ 57. Passing to the history of the doctrine of stimulus, which is by far the most amusing and instructive part of Dr ANSTIE’S book, I find sixty-four pages devoted to showing the ‘*striking confusion of ideas*’ that has prevailed in his profession. Here and there, as he passes on, I note statements exceedingly damaging to the authority of medicine, and that must contribute towards shaking the blind faith which the public repose in medical opinion. Teaching and tending in the same direction are many passages of absolute no-meaning, which the author cites from the highest authorities of his profession, and offers as the fruits of a matured medical-philosophy! Take Professor BENNET’S description of ‘Inflammation’—a portrait with the subject totally omitted!

He “speaks of it as (1) originally CAUSED by an *irritation* of the ultimate molecules of the part, (2) *in consequence of which their vital power of selection is destroyed*, * and that of their attraction is increased. The strong-pulse, the fever, the increased flow of blood, are (3) the RESULTS of inflammation, and show that the economy is at work REPAIRING (4) THE INJURY. The results can only be remedied by the *natural* action of ordinary cell processes.”

We are told, first, that Inflammation is CAUSED by an *irritation* of ultimate molecules. Is’nt that state injury or disease? Second, that, in CONSEQUENCE, the parts are left too weak to *select* their food and eat. Is’nt that disease—want of function? Third, that the results of *inflammation* are flow of blood, etc. Fourth, that the ECONOMY (the parts so weak that they cannot select?) is at *work* repairing damages! But *which*, or *what* is the inflammation that has these ‘results’? and what is the *cause* of that ‘irritation’ ending in that debility?

The observations of Professor LISTER are reproduced to place

* True enough, if it were rightly expressed. They are *too-weak*, he means, to take in and assimilate their food.

inflammation 'in a new light'; which is professedly done in the six statements following:—

1. The early stages are characterized by a tendency of blood corpuscles to adhere to each other, inducing obstruction to the circulation. 2. This adhesive property is *not* a vital one, since it is never seen in health, and can be produced in effused blood by chemical action on the plasma. 3. It affects the white, or less vitalized corpuscles, more than the red. 4. The cause (*effect?*) is due to some change in the containing blood vessels. 5. The earliest stages of a local irritation are accompanied by 'vital depression.' 6. Therefore inflammation *consists in the removal of the modifying influences of the living (healthy) state allowing the physical properties of the parts, hitherto restrained, to come into play.*

Let the reader carefully examine these sentences, and tell us what he finds, save this—that corpuscular adhesiveness is a condition of the blood in inflammation, caused by some change in the blood vessels of a chemical rather than a vital kind, since the more life or health, the less of this diseased condition! The sixth concluding axiom, literally rendered, amounts to the truism that when vital-forces are stronger chemical forces are weaker,—*that when matter is not living it acts like non-living matter*,—which we are by no means disposed to question; but that such truisms can further sound philosophy of any kind, I may, without presumption, most gravely doubt.

§ 58. Dr ANSTIE started with the dogma that "if the action of all doses of a [meaning *any one*] drug is the same essentially it ought to be true universally;" but at p. 58 we are told that "all irritant action—*i.e.* action capable, *if* prolonged, of causing inflammation—is of a radically distinct, *if not opposite kind*, from whatever increases the proper functions of a part—whatever, in fact, makes it to be more alive." His illustration of difference is that of mustard applied (1) to "a delicate web of *naked* capillaries, and (2) of mustard, largely diluted with our food, operating upon the sheathed and protected coats of the stomach"! Now, in this case, no difference of *kind* exists in the sinapic action, but only one of degree; just as there is no difference in the *mode of action* of heat, whether we place the hand an inch, a foot, or a yard from the fire. The physiological 'result' may be different, but heat has not, therefore, two modes of action, radically distinct. There is, neither in the mustard, nor the heat, nor the alcohol, a degree of it which forms a *pivot* or turning point of difference; but, to use Dr ANSTIE'S own words, it is a case of prolonged and continuous action, more or less resisted or neutralized. But, by the definition, this irritant action is not essentially inflammatory, but

only such when prolonged; and, therefore, the initial degrees differ from the terminal in their results, while they are essentially but one action 'prolonged.' Now, while Dr ANSTIE previously argued that if every dose of any drug is the same in its action, it is true of all drugs—he has here virtually admitted that *some* irritants produce an action not inflammatory in one degree, but certainly so in another, if prolonged; and, therefore, by his own logic, if it be true of one agent, it is true universally, and, by consequence, true of alcohol. In other words, the inflammatory action of alcohol is but a prolonged action of an irritant, and is, therefore, "radically distinct from whatever increases the proper functions of a part." And this, *in fact*, is the precise conclusion at which, with his clearer insight and more logical mind, Dr CHAMBERS has arrived:—

"On the whole we may conclude that the effect of continued small doses of alcohol is to *diminish vital metamorphosis, to make it irregular, and to induce, in healthy people, the necessity for crises of evacuation.* (p. 568.) What I wish particularly to remark is, that *the primary as well as the secondary action, is a diminution of vitality in the nervous system.*"—p. 573.

§ 59. Passing over the second chapter of Dr ANSTIE'S book, the third opens with a quotation from COLERIDGE, wherein that philosopher says that "the lower powers of nature [physical forces] are *assimilated*, not merely employed, and assimilated presupposes the homogeneous nature of the thing assimilated"—*i.e. like to like*, or nutrition—"else it is a *miracle*, only not the same as creation, because it would imply that additional and equal miracle of annihilation." Then Dr ANSTIE proceeds with his attempt to persuade us into the belief of a *series* of such miracles—to wit, that tissue and organ can be long and continuously worked without food (or what is the same thing, without adequate food), and force *not* disappear; or, if it does, that what is not like the organism, or what does not even stop in the body, shall sustain, or nourish, or feed it! Men shall live and be plump, work and not waste, while they consume a few grains per day of the coco leaf, a few grains of a stimulant, a few whiffs of a pipe, or a few ounces of gin!* He says,

* The experiments of the German physiologists, prove that the *fat* which, in varying quantities, but greatest in alcohol-drinkers, is always present *in* muscle, regularly disappears in starvation, but that the waste of the tissue itself is *by no means proportionate*. For example, urea declines one half in two days, and then remains constant *for a week*, falling again rapidly two days previous to death. *Vital-cohesion*, in short, *resists* oxidation more than fat, which passes off day by day the same, under the same conditions of oxidation. In the alcohol patients, I may remind the reader, the *oxygen* is lessened which seizes upon the unresisting fuel, and thus *prolongs* the fatal termination to the tissues, by limiting their waste to their own reduced dynamic function.

that "life may be maintained for weeks *on water* as its only pabulum," *except* 'the atmosphere,' and *except* 'the tissues.' We had no true idea before of the virtues of the pump, or of the nutrition of the air, but if these can accomplish such marvels as to become nerve and brain, bone and muscle, we really cannot need the magic leaf and pipe, or still more marvellous alcoholic elixir.

§ 60. We have seen persons in trance living without *any* food; we have known persons who alleged that they took for weeks no food, and parted with no solids or liquids, or next to none; and I was recently cognizant of the case of a young woman who subsisted (so far as her friends knew) on an ounce or two of toast per day, a small cup of coffee, and two or three dessert spoonfuls of cod liver oil, *for nearly a year*, walking or riding about during the time. The dilemmas are at the service of Drs INMAN and ANSTIE, for the cases are not complicated with alcohol. Either *no-food* in trance *is* food, or the little food is deception; or there *are* states of the body (induced by natural causes, as well as by narcotics) in which the molecular waste in the tissues is reduced to a point so low as to be adequately met by the food already *in* the body. But that any miracles are wrought, I most certainly disbelieve. Whatever *else* water, tobacco, coco, and alcohol may do, they cannot achieve the impossible. Whatever we may *not* know about 'the conditions of life,' we know that bricks cannot repair glass; that machinery of any sort, low or high, artificial or vital, cannot work without change; that 'force' comes into the organism *only* by nutriment; and that neither smoke nor alcohol, neither coco nor opium, can act like genuine food.

The whole issue of Dr ANSTIE'S theory, however, if it were as true as it is absurd, would leave the temperance doctrine and practice intact. Suppose it to be a fact, that under certain abnormal states, a person may take such very minute doses of alcohol, at certain intervals, as will produce no *perceptibly poisonous effect* or after depression—though careful experimenters have noted that *even a table spoonful of wine* produces results of an abnormal character—what then? We shall require a physician to prescribe it, and one who knows the exact state and constitution of the patient; or, in other words, the whole system of social drinking must be excluded by the conditions and limitations laid down.

V.—OF DOCTORS AND DRINK.

§ 61. The special and practical purpose of my present discussion does not lead me to consider whether a Science of Medicine is *possible*, regarded as a drug-system; I am only concerned to affirm, in view of the chaos, inconsistency, and uncertainty of Medicine as it is, that I rely for cure, in the great majority of curable diseases, not upon *physic*, but upon food, rest, exercise, and the varied application of heat and cold, through the agency of air and water. These furnish the naturally-adapted *matter* and *media* of vital organism, and therefore of healthy nutrition on the one hand, and of adequate excretion on the other. Whatever interferes with *this* adaptation lays the foundation of disease, by *deteriorating* the ultimate tissues in which force is repositied, and by which function is performed. If this be the *law* of life and force, nothing can wisely be used as *permanent* Medicine which will lessen vital-function, impede secretion, or corrupt that pabulum of the body out of which its varied structures are built-up. Hypothetically, and at best, then, *physic* is an *abnormal* and *exceptional* thing, to be employed only in rare emergencies and for momentary ends. All (so called) *physic* that is *not* really food, is literally *poison*—and in this aspect of the case, its sole hypothetical justification is, that it produces a temporary structural injury to avert a more permanent functional disturbance which would terminate in a more dangerous and permanent injury of the organism. To use a figure of speech, when the coach is going at the *proper-speed* on normal ground, it would be a foolish loss of force to put on the *drag*, or apply the *lash*; but if rushing madly down a steep and dangerous declivity, it is wise to *put on the break* to avoid an upset at the bottom; or if ascending a short, steep hill with an inadequate team, it may be also wise to *save time and force* by what is called ‘the stimulation of the whip.’ Is it not apparent, however, that to make this into a *dietetic* (*i.e.* daily) system in the ordinary working of one’s horses—to keep-up the ‘whipping,’ or to keep-on ‘the drag’—would inevitably end

in prematurely wearing-out the vitality of the brutes? If this be true of horses, why should it be false of ASSES?

§ 62. ERASMUS WILSON lately observed, that "the primary causes of cutaneous disease are only two—DEBILITY and SPECIFIC POISON." The *Medical Times* (April 22nd, 1865) enumerates as amongst the most efficient influences, "altered nutrition from various causes—as *exhausted nervous power*, bad-living, etc." Now, in fact, this applies to Diseases universally. First, there is a *disturbing* agent outside—a *poison*, or an *excess* of something in itself proper (in its proper place). Second, there is the vital *strength* of the organism. If this be deficient, *i.e.* capable of having its forces soon exhausted in resistance,—then disease is *developed*—*i.e.* function and structure become permanently altered—there is *disorder* instead of *fit-action*: disturbance instead of vibration. "This *vis conservatrix*," as Dr C. B. WILLIAMS says, "is alive to the exciting causes; and *in persons in full health it is generally competent to resist them*. But if the resisting-power be weakened, or the exciting cause (agent) be too strong for it, then the (con)cause acts, and disease begins." He gives an excellent example in regard to intemperance in intoxicating liquors.

"There is probably, in this country, no source of disease more fertile than this. Besides many disorders directly excited by it, it *predisposes* to attacks of fever, erysipelas, dysentery, cholera, dropsy, and rheumatic and urinary diseases [affections induced by *retaining* effete matter in the blood]; and if it do not increase proneness to inflammatory disorders, certainly disposes such affections to unfavourable terminations, and *causes many a victim to sink after accidents and operations* which would have been comparatively trifling affairs in more sober subjects. Nor can we wonder at the pernicious effects of this kind of excess, when we consider *the weakened state of function and structure which stimulating drinks induce*, especially in the organs which they most *directly* affect, the stomach, liver, kidneys, blood, heart, and brain. The unsound state of these organs thus induced *peculiarly impairs* the powers of the body to resist, or throw off disease."*

Were I to ask Dr WILLIAMS the question—are not doses of digitalis, and a daily 'bleeding,' in moderation, preferable to *Total* abstinence?—he would probably suspect my sanity: and yet he fails to see the absurdity of arguing for the advantages of the dietetic drug which induces such useless irritation and such deplorable waste of vital-force as he describes above! Is not Dr EDWARD SMITH's conclusion more rational when he says—"Since alcohol, in every form, acts as a *disturbing* agent in health, its use under these circumstances *must tend to injury*"?

* Principles of Medicine. 3rd ed., p. 13.

DR WILLIAMS has something more worth attention:—

“Alcoholic liquors act as *stimulants* [query, irritants?] when taken into the stomach. At first they provoke appetite and enable the organ to dispose of a greater quantity of food (query?); but soon the digestive power *fails in consequence of the exhaustion that necessarily follows on undue excitement*, and inappetency, nausea, or even vomiting, ensue. The operation of these agents is however soon extended, for they are absorbed into the blood, and their stimulant action is exercised on distant parts, especially on the vascular and nervous system. As the absorption is effected by the veins, they pass by the portal vein directly to the *liver*, and hence the function and structure of this organ are particularly apt to suffer from indulgence in spirituous beverages. So, too, as the *kidneys* are the natural emunctories through which extraneous matters are eliminated from the system, they get, first, *over-stimulated*, and then *exhausted*, and are injured in their secreting power, and ultimately in their structure also. If repeatedly exposed to the same injurious influence, the *heart* and vessels also are *over-excited* at first, and afterwards *lose their tone*: the processes of assimilation and nutrition are impaired and modified, and all the solids and fluids of the body become in some degree depraved.

“*Habitual* indulgence in strong drinks causes other kinds of disease, which are so often seen that they deserve especial notice. *When taken only, or chiefly with food, not as a substitute for it but as a constituent of general free living*, fermented liquors contribute to the production of *an abundance of ill-assimilated, over-heated blood*; which either finds its vent in eruptions on the surface, or in local hæmorrhages or fluxes, or causes various functional disorders, such as palpitation, vertigo, stupor, dyspepsia, and bilious attacks; or sometimes *Gout* or *Gravel*. The latter results more commonly follow when the beverages contain much free acid, as well as an abundance of spirit, as is the case with port-wine, rum-punch, and hard strong-beer. The less acid malt liquors, ale and porter, *tend rather to induce liver disorders*, and an abundant deposition of fat in the body. All these consequences are promoted by sedentary habits and deficient excretion: *for active exercise carries off much of the spirit and superfluous aliment*, by an increased elimination.

“The most disastrous consequences of intemperance are exhibited in the habitual drunkard, who in proportion as he indulges in liquor, loses his appetite for food, and his power of digesting it. *He then drinks and starves*, and the disease which ensues comprises the exhaustion of inanition, together with the more direct effects of the *alcoholic poison*. Thus in *delirium tremens*, the drunkard's disease, together with the permanent restless excitement of the irritated nervous system, which adds more and more to the exhaustion, there is fearful weakness of mind and body, and in bad cases even the organic functions are affected, so that the pulse is very weak and frequent, the excretions are scanty and depraved, and the respiration is so imperfectly performed by the involuntary powers that sleep cannot ensue. This exhaustion soon terminates in death, unless the result is prevented by appropriate treatment; and this must comprise, *besides opium* (the common remedy), *ammonia and other stimulants* to the circulation and respiration: *purgatives and diuretics to free the blood from the excrementitious matter that has accumulated in it*; and fluid nourishment to repair its waste. Without these adjuncts, opium will not only fail to procure sleep, but if given in large doses, may paralyse the remaining powers of life.” *

* Principles. Pp. 29, 314, (1856). He adds, “stimulants, instead of increased narcotization, are the things needed, combined with nutrients.” This is a double fallacy,

§ 63. The official account of the Russian epidemic—a typhoid and relapsing fever—both as regards its causes and the exemption from it, records one of a large series of similar facts found in all parts of the globe.

“The origin of this epidemic may be attributed to bad hygienic arrangements; to the consumption of vegetables grown under unfavourable climatical conditions [*i.e.* with not enough *force* in them, which comes from sunshine]; to the free use of grain *spirits* by the lower classes; and to over-crowding. *Men are more subject to the malady than women.* The workmen addicted to drink have been the chief victims.” “Quinine and stimulants,” says the Berlin correspondent of the *Times*, “have no effect, the deaths have risen to 40 per cent.”

It is the same in Ireland as regards Whisky. The women have the least fever, and are the *longest livers*: four of them reach one hundred years, for one man that does so. It is the same with *Tobacco* in France. They who use it induce *debility*, and that insures the greater fatality of disease. M. JOLLY, in his paper read before the Academy of Medicine, after detailing the fearful increase of nervous-disorders consequent upon the increase of smoking, notices the frequency of cancer of the lips, especially on the side on which the cigar is smoked, *but its almost total absence from women.* So of cancer of the stomach, which is more frequent among men than women by 53 per cent. He records the frightful increase also of *progressive paralysis*—a disease very rare fifty years ago—which he ascribes to the increased use of Alcohol and Tobacco. The ratio of numbers also, between males and females from the ages of 30 to 50, is *far greater for the latter.*

§ 64. It shall now be shown, from the *confessions* of the most eminent chemists, physicians, and physiologists in the world—including many who have had the shortsightedness to carp at the doctrines of Teetotalism—that *Alcohol* is an agent utterly foreign to the human body and its normal wants—one that never *gives power* like food, nor *aids circulation* like water, nor *produces heat* like oil, nor *purifies* like fresh-air, nor helps *elimination* like exercise,—an agent the sole, perpetual, and inevitable effects of which are to arrest blood-development, to retain waste matter, to irritate mucous and other tissue, to thicken normal juices, to impede digestion, to lower animal heat, to deaden nervous filament, to *kill* molecular life, and to waste, through the excitement it creates in heart and head, the grand controlling *forces* of the nerves and brain.

for alcohol is a narcotic as bad as opium in this disease, while the benefit of the broth is ascribed to the miscalled stimulant. It is now found that the *best* treatment is to avoid alcohol. L.

Dr W. BEAUMONT, as the result of ocular demonstration, declares as follows:—

“The *whole class* of Alcoholic liquors, whether simply fermented or distilled, may be considered as *Narcotics*, producing very little difference in their ultimate effects on the system.” (Experiments on Digestion, performed upon St Martin, who had an orifice in his stomach. Plattsburgh, U.S., 1833. Pp. 49, 50.)

Professor SCHULTZ, of Berlin, in his Microscopical Experiments on the Blood, twenty years ago, established a most important series of facts, which BÖCKER, VIRCHOW, MUNROE, and others, have since amply confirmed:—

“Alcohol stimulates the blood-discs to an increased and unnatural contraction, which induces *their premature death*. The decolourization of the vesicles is gradual, and more or less perfect *according to the quantity of alcohol used*.”*

The kind of *riot* created by the presence of alcohol may be understood by contrasting the natural with the poisoned-condition of the blood as seen under the microscope.

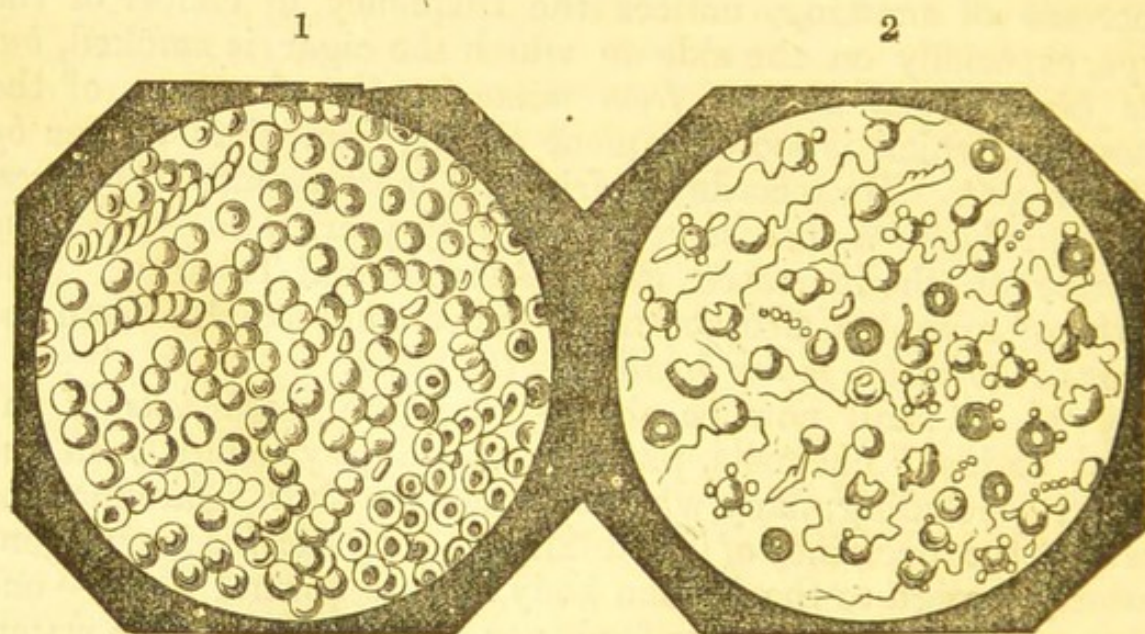


Figure 1.—Blood corpuscles: some with darkened centres, owing to the focal point at which they are seen; others in rolls.

2.—Blood corpuscles altered from their natural shape by the action of sherry wine or diluted alcohol (250 diameters).

§ 65. Amongst the absurd pleas for alcohol is that noticed in § 55, borrowed in this country by Mr LEWES and the Leicester Dr BARCLAY, from the *Moles-chotts* and *Donder-heads* of the Continent, viz. that it *arrests* metamorphosis of tissue!

* See whole extract in my *Illustrated History of Alcohol*, published in 1843-6 P. 42. Dr MUNROE's lecture on alcohol. 6d. post-free; cheap edition, 9 copies for 1s.

The poor Doctor, however, in the pamphlet which had the honour of being patronized by the *Saturday Review* physiologists, confesses, after all, that it is merely a circuitous way of saying 'It is antagonistic to life.'

"But I am sure to be asked, 'Is not this very metamorphosis of tissue only a hard name for life?' It is. '*Is not the most rapid metamorphosis of tissue the highest form of life?*' I answer again, *Yes!*"—(P. 20.)*

§ 66. JUSTUS VON LIEBIG conceded as early as 1844, that alcohol could not nourish; and in his *Animal Physiology* admits that it is *poisonous* to the blood.

"Beer, Wine, Spirits, etc., furnish no element *capable* of entering into the composition of blood, muscular fibre, or any part which is the seat of the Vital-principle." (Letters on Chemistry, 1844. P. 57.)

"The circulation will appear accelerated *at the expense of the force available for voluntary motion*; but without the production of a greater amount of mechanical force." (*Animal Chemistry*, 1843.)*

In his later Letters is another admirable passage:—

"As in the case of plants and animals, so in man; *the food should be of an indifferent (neutral) character; it should exert neither a chemical nor peculiar action on the healthy frame*, by which its normal functions are either excited, or retarded. From this point of view the use of WINE is quite superfluous to man; for even though it be not always injurious to health, *yet it is constantly followed by the expenditure of power*. These drinks promote the change of matter in the body, and are consequently *attended by an inward loss of power*, which ceases to be productive, *because it is not employed in overcoming outward difficulties—i.e. in working.*"

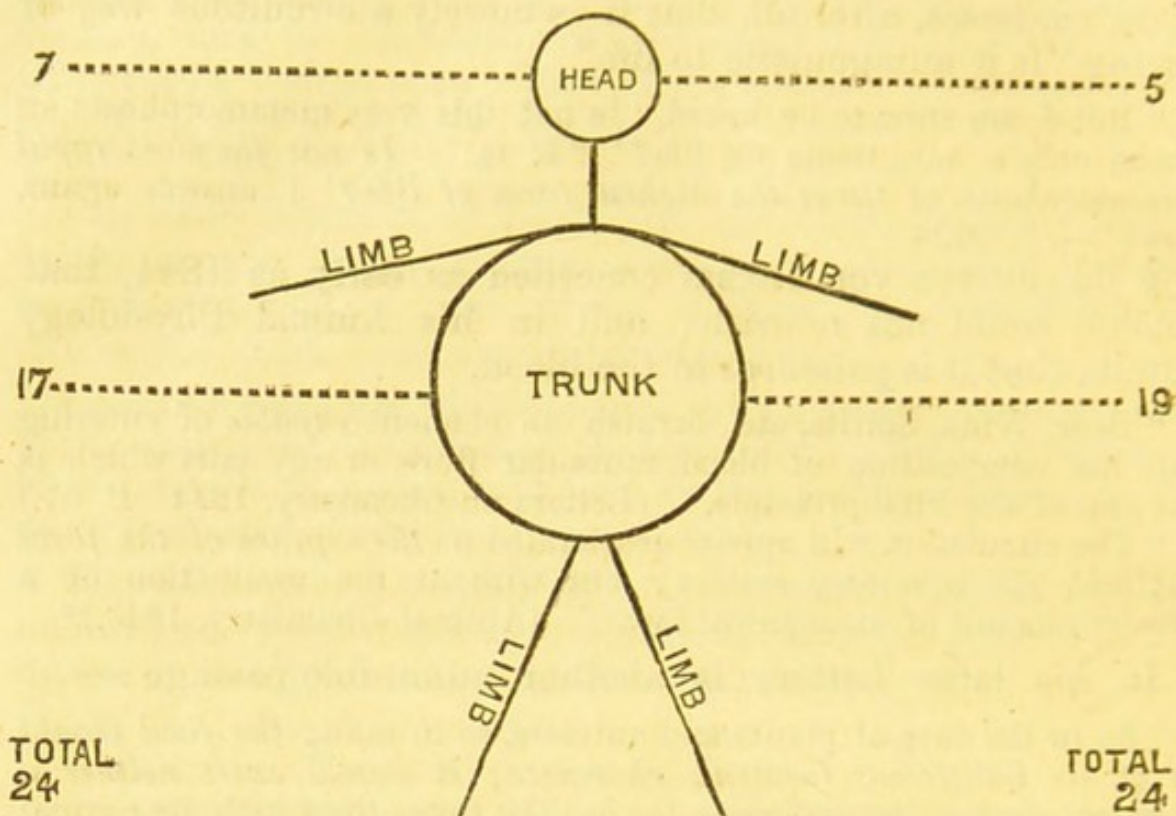
In the following passage, referring to the poor-clad labourer, the italics are Liebig's own:—

"Spirits, by their action on the nerves, enable him to make up the deficient power *at the expense of his body*—to consume to-day that quantity which ought naturally to have been employed a day later. He draws, so to speak, a bill on his health, which must be always renewed, because, for want of means, he cannot take it up: *he consumes his capital instead of his interest*, and the result is, the inevitable bankruptcy of his body."

The true significance of this last statement does not seem to be understood by people generally, or even by many doctors, or it would save them from talking much unmitigated nonsense about alcohol imparting strength. Let me endeavour to simplify the case. The body is an organ for the condensation of Force (§ 3, 4), and Food is the material in which it first

* Vide 'Fallacies of the Faculty' in my *Works*, vol. i. Appendix; and the *Meliora* article 'Blunders of Dr Barclay.'

exists. Let the body, then, be represented in its three essential parts, thus—*Head, Trunk, and Limbs.*



All Force is primarily got-up or generated by the Organs of Nutrition in the Trunk. When the physical organism has got and assimilated *all* the matter and force requisite for its own structure and action, the *surplus* is translated to the brain, for the higher sensitive and thinking-life; or for the more perfect performance of the inferior functions controlled by the nerves.* The *power* is of course a fixed and

* Almost every function of every organ, has a *distinct* nerve for its performance: hence *nutrition* is hindered by diminishing nervous force. "Nervous influence," says CLAUDE BERNARD, "acting upon the glands, is capable of accelerating or retarding the absorption of oxygen *in the very depth of our tissues.*" See also Dr BROWN-SEQUARD'S lectures on the Nervous system.

If muscle is *not used*, then it becomes oxidized, and converted into electric or calorific force; so, electro-motive force disappears during the *activity* of a nerve or muscle. I do not, for popular comprehension, enter into the minutiae concerning the correlation of Force. It is here enough that I regard the nerves as conveying an *exciting* or *directing* power, as a spark to gunpowder, or the guider to the engine; but it must be recollected always that as the guider cannot *give steam*, nor the spark *explosive-force* (disturbed chemical cohesion), so the nerves cannot *give working-power* to the muscle—for that can only be put there by *nutrition*. Oxygen, during aeration of the blood in the lungs, produces no appreciable *calorific* effect, and oil burnt in the general circulation, cannot *change* into *mechanical capacity* (*i.e.* muscular tension). Heat is the vanishing of organic-force, not the *concentering* of it as mechanism in muscle. If the reader reflects that a human heart, weighing 9 ozs., wastes

absolute amount, and can no more rise *higher* than the conditions of the food assimilated, than can the steam-power of the engine exceed the heat-power of the fuel in the furnace. Now this surplus power is *used* in two directions—it comes back in part, through the INVOLUNTARY NERVES, to the various organs of the Trunk (heart, lungs, liver, etc.); and in part, through the VOLUNTARY NERVES to the muscles of the limbs, and other instruments of voluntary force or perception; or is used by the Brain itself in thinking and feeling. Let this Man-power then be expressed by a fixed number—say 24. Let the *normal-distribution* of the TOTAL-FORCE be expressed in figures on the left side of the Diagram: and the *stimulated-alcoholic-distribution* be, in like manner, placed on the right. If we suppose the direct and *involuntary* force used by the Trunk for Nutritive and Vascular action to be 17, there is *left in the brain* available for moral, mental, and voluntary *work*, the seven Talents of Power. But if you drink a glass or two of alcohol, what follows? *Increased vascular work* in the Trunk, equalling 19. Now that augmented heart-throbbing, pulse-beating, and lung-breathing is *extra* work, and the force to do it with could only come from the brain as exciting power, or from the tissues themselves, leaving them so much more exhausted. There is, therefore, less available power for *voluntary* work of head or limbs.

The reader will not forget that alcohol *prevents* the generation of the normal power of 24 by interfering with nutrition.

§ 67. Facts, of course, agree with this necessary law, as they needs must. Hence TOM SAYERS, even, had to submit to an abstinence training when he desired to realize his highest pitch of power.

Dr W. BRINTON, Physician to St Thomas's Hospital, says:—

“Careful observation leaves little doubt that a moderate dose of beer or wine would, in most cases, at *once diminish the maximum weight* which a healthy person could lift, to something below his teetotal

by its wondrous pumping of the blood, say 2 or 3 ozs. of its substance daily (equalling 37,780 metre kilogrammes of mechanical force, which is the total force required for its work,) he will perceive how stupid and superstitious beyond all expression, is the popular notion that alcohol can ‘strengthen’!—or that ANYTHING—magic-drug or magic-drink, Buxton's beer or Bass' humbug, Rooke's ‘Solar Tincture’ or Old Tom,—can do the work appointed to be done by the Sun and Earth in the growth of nitrogenous cereals, or nourishing fruits. Our *power* is measured solely and absolutely by the *conversion* of these into tissue. *Tissue* is our ‘Bank of Force,’ and Nature will honour only such cheques as are drawn upon it, to the extent of the deposit.

standard. In like manner, it is not too much to say, that *mental acuteness, accuracy of perception, and delicacy of the senses*, are all so far opposed by alcohol, as that the *maximum* efforts of each are *incompatible* with the ingestion of any moderate quantity of fermented liquid. A single glass will often suffice to *take the edge off* both mind and body, and to reduce their capacity to something below their perfection of work." (Introduction to Dietetics, p. 389. 1861.)

§ 68. It is some comfort that while mere pretenders to Science are twisting their amateur knowledge into defences of tippling,—one of the profoundest Histologists, and most cautious Interpreters of modern Chemistry and Physiology, has come to conclusions in exact accordance with all I have taught on the Science of Life in general, and of Teetotalism in particular. From Professor LEHMANN'S great work I reproduce two passages:—

"While the enlightened practitioner is disposed to attach at least as much importance to a rational *dietetic*, as to a specifically therapeutic mode of treatment, the value of investigations on normal respiration can never be over rated; for when once the fact is universally admitted THAT THE FIRST THING IN MANY DISEASES IS TO FURNISH A COPIOUS SUPPLY OF OXYGEN TO THE BLOOD WHICH HAS BEEN LOADED WITH IMPERFECTLY DECOMPOSED SUBSTANCES, and to remove as speedily as possible the carbonic-acid which has accumulated in it, these observations will have afforded us true remedial agents, which exceed almost every other in the certainty of their action. Instead of tormenting an emphysematous patient, suffering from congestion and hæmorrhoidal tendencies, with aperients and saline mineral waters, we might relieve him far more effectually by recommending him to practise artificial expansion of the chest in respiration, or to take exercise suited to produce this result,—while we should forbid the use of spirituous drinks, and not prescribe tinctures, which might hinder the necessary excretion of carbonic-acid.

"Although in our considerations of the influence of ordinary food on the Respiratory function, we have deduced the results of the observations from purely *chemical* relations, we should greatly err were we to adopt the same method in reference to certain substances occasionally introduced into the organism, such as the *ætherial oils, alcohol, theine*, etc. Their immediate effects remind us that there are *nerves* in the animal organism which exert the most important influence on all its functions, on nutrition as well as on respiration, and that, consequently, they in some degree disturb that uniform course of phænomena which we might suppose would result from chemical laws. WE CANNOT, THEREFORE, BELIEVE THAT ALCOHOL THEINE, ETC., WHICH PRODUCE SUCH POWERFUL REACTIONS ON THE NERVOUS SYSTEM, BELONG TO THE CLASS OF SUBSTANCES CAPABLE OF CONTRIBUTING TOWARDS THE MAINTENANCE OF THE VITAL FUNCTIONS." (Physiological Chemistry, vol. iii. § On Respiration.)

Dr VIERORDT, demonstrates that alcohol opposes the *ventilation* of the living-house :—

“The expiration of *carbonic acid*, after the use of fermented liquors, is *considerably diminished*, and does not return to its normal quantity for the space of two hours.” (Physiology of Respiration. Carlsruhe, 1845.)

§ 69. Even Professor von MOLESCHOTT, of Erlangen, says:—

“Alcohol does not effect any direct restitution, *nor deserve the name of an alimentary principle.*” (Lehre der Nahrungsmittel, 1853.)

Dr MICHEL LEVY, in his treatise on ‘Hygiene,’ says :—

“The influence of alcohol upon the nervous system, and particularly upon the brain, is manifest by *a progressive but constant series of symptoms*, which, in different degrees of intensity, are re-produced in *all* individuals. These constitute a *true poisoning*, and this morbid state is exhibited under three phases—SUR-EXCITATION, PERTURBATION, ABOLITION of the cerebro-spinal functions.” (Paris, 1857.)

§ 70. Dr EDWARD SMITH, F.R.S., in 1859, performed a series of experiments, recorded in the Philosophical Transactions. Amongst his conclusions were the following :—

“Alcohol is probably not transformed, and *does not increase the production of heat* by its own chemical action.

“The action of the skin is lessened, and the *sensation of warmth* increased.

“*It interferes with alimentation.* Its power to *lessen the salivary secretion* must impede the due digestion of starch.

“It greatly lessens muscular tone and power.

“There is no evidence that it *increases nervous influence*, whilst there is much evidence that it *lessens the nervous power*, as shown by the mind and muscles.

“For all medicinal and dietetic purposes, the dose only affects the *degree*, not the *direction* of the influence.

“Alcohol is not a true food ; and it neither warms nor sustains the body by the elements of which it is composed.

“*Psychological actions* (after a moderate dose, taken first thing in a morning by himself and friends). In from three to seven minutes *the mind was disturbed*. Consciousness, the power of fixing attention, the perception of light, and the power of directing and co-ordinating the muscles, were lessened. After thirty minutes the effect diminished as shown by increased consciousness and the perception of light, *as if a veil had fallen from the eyes.*”

These experiments were providentially followed in October 1860, by the great French work ‘On the rôle of Alcohol and other Anæsthetics in the Organism,’ detailing a series of experiments, performed with an admirable apparatus, on dogs and men, by the distinguished physiologists, Professors LALLEMAND

and PERRIN, assisted by the chemist DUROY. Their general conclusion is well expressed:—

“Facts establish, from a physiological point of view, a *line of demarkation between alcohol and foods*. These latter *restore* the forces without the organism betraying, by disturbed function or by outward agitation, the labour of repair, *which is accomplished silently in the woof of the tissues*. Alcohol, on the other hand, immediately *provokes*, even in a moderate dose, an excitement which extends through the entire economy.”*

Their tests showed that alcohol came out of the body, *in totality*, through breath, skin, and kidneys; and that *no derivatives* of alcohol were to be found in the blood and secretions. This gave the *coup de grace* to that baseless theory of LIEBIG which, in 1843, I had in vain protested against as being contrary to the evidence; for it *proved* that alcohol is *not decomposed* in the blood, and therefore cannot produce heat.

§ 71. Dr T. K. CHAMBERS, in his ‘Clinical Lectures,’ says:—

“What is a stimulant? It is usually held to be something which spurs on an animal to a more vigorous performance of its duties. It seems doubtful if, on the healthy nervous system, this is ever the effect of Alcohol, even in the most moderate doses, and for the shortest periods of time. A diminution of force is quite consistent with augmented quickness of motion, or may it not be said that, in involuntary muscles, it implies it. The action of chloroform is to quicken the pulse, yet the observations of Dr Bedford Brown on the circulation in the human cerebrum during anæsthesia, clearly show that the propelling power of the heart is diminished during that state. *It is clear that we must cease to regard Alcohol as in any sense an Aliment, inas much as it goes out as it went in, and does not, so far as we know, leave any of its substance behind it.*—(Renewal of Life. 1862.)

In the *Medico-Chirurgical Review* for July, 1861, he had said:—

“It might have been anticipated *a priori*, that the diminished vitality which accompanies the use of alcohol should lead to a diathesis of general degeneration. No part of the body seems exempt, but it is of course most notably manifested in those organs which are of the first necessity, such as the liver and the kidneys. This loss of vitality manifests itself by the formation of black specks (oil) in the blood discs, and then by their conversion into the round pale globules which, in all cases of disease (*i.e.* of diminished vitality), are found in excess in the blood. *This devitalized condition of the nutritive fluid is probably the first step to the de-vitalization of the tissues which it feeds.*

“To recapitulate: we think that the evidence, so far as it has yet gone, *shows the action of alcohol upon life to be consistent and uniform in all its phases, and to be always exhibited as an arrest of vitality.* In

* For the experiments in greater detail see my *History of Alcohol*, new Introduction; and Dr Munroe’s lecture.

a condition of health it acts in some measure immediately on the extremities of the nervous system by direct contact, and is also carried through the universal thoroughfare of the circulation to the brain. To nerve-tissue chiefly it adheres, and testifies its presence by *arresting* the functions of that tissue, for good or for evil. The most special exhibition of disease is in the *special* function of the nervous system, the life of relation, to perform the duties of which the de-vitalized nerve becomes inadequate. *Then the vegetable life suffers; the forms of tissue become of a lower class—of a class which demands less vitality for growth and nourishment—connective fibre takes the place of gland, and oil of connective fibre. The circulation retains, indeed, its industrious activity, but receives and transmits a less valuable, less living freight, and thus becomes the cause, as well as the effect, of diminished vitality.*"

§ 72. Dr MARKHAM, in the British Medical Journal, five years ago, summed up as follows:—

*"That medical men had been stimulated to the modern extensive use of alcoholic drinks in disease and in health by chemical theories; that those chemical theories upon which they founded their practice have at length been found untenable; and, especially, that we have now at length come upon another chemical theory, which indicates that it is to all intents a FOREIGN AGENT, which the body gets rid of as soon as it can; that it is, in fact, something like chloroform, ether, etc.—agents fraught with blessings to humanity, * but yet, admittedly, rather tending to poison than to feed the body of man. Alcohol is not a supporter of combustion. It does not prevent the wear and tear of the tissues. Part, and probably the whole, of it escapes from the body; and none of it, so far as we KNOW, is assimilated, or serves for the purposes of nutrition. It is, therefore, not a food in the eye of science."*

Dr LIONEL S. BEALE, M.D., F.R.S., physician to King's College Hospital, says:—

"Alcohol does not act as food; it does not nourish tissues; it may diminish waste by altering the consistence and chemical properties of fluids and solids. It cuts short the life of rapidly growing cells, or causes them to live more slowly. The remedies which act favourably, really seem to act, not by increasing vital power, but by decreasing the rate at which vital changes are proceeding. This view accounts for the

* But there are the drawbacks, which should be candidly stated. F. H. HAMILTON, M.D., Medical Inspector of the United States Army, in his 'Treatise on Military Hygiene' (1865), says:—*"Anæsthetics produce certain effects upon the system which tend to prevent union by the first intention, and, consequently, they must be regarded as, indirectly, promoting suppuration, pyæmia, secondary hæmorrhage, erysipelas, and hospital gangrene... We are compelled to say, that our success in capital operations, especially in primary thigh amputations, has not been as good since we began to use these agents as it was before."* (P. 621.) Alcohol belongs to the class.

shrivelling of the hepatic cells, the shrinking of the secretive structure, and the increased hardness and condensation of the entire liver which result from the continual bathing of the gland structure in blood loaded with alcohol. It accords with the gradual shrinking and condensation of tissues which occur in persons who have long been accustomed to excess. *The tendency to increased formation of adipose tissue, may be explained upon the same view; and the stunting which follows its exhibition to young animals is readily accounted for.**

Dr ROBERT DRUITT, in his quacky 'Report on Cheap Wines,' written in the interest of the latest aspect of 'the Wine Trade' (the Gladstonian-humbug), says:—

"If the patient drink cheap fortified, or fictitious wine, he is only getting coarse Alcohol made doubly unwholesome, for which he pays an enormous price. ALCOHOL IS A MERE DRUG; and although a constituent, is not *the* valuable one in wine." [Capitals and Italics are his own.] P. 22.

Even Dr ANSTIE has, in a sense, become the subject of negative conviction:—

"Finally, there are a number of substances, of which we are *not able to prove* that they are either used for the repair of the tissues, or transformed in the body so as to generate heat; in this class we place *Alcohol, Chloroform*, the *Æthers*, various alkaloids, *Strychnia, Morphia* and the vegetables which contain them."—(Stimulants and Narcotics.

§ 73. The *Saturday Review* (February 24th, '66) has drawn the right conclusion from the fact of our continued national use of stimulants, as necessary wasters of force:—

"*Punch and Port-wine have done their work, and we bear the penalty of past ancestral joviality in the shape of an exaggeration of nervous sensibility* [weakness] and all its attendant miseries. Gouts and fever have gone out [not quite!] and headaches and dyspepsia have set in. In fact, had not Volunteering been invented, and Cricketing come to be regarded as a branch of the *literæ humaniores*, there is no saying to what a degree of *morbid sensitiveness and incurable indigestion* the whole nation might have been by this time reduced." (P. 238.)

Man-'Saturday,' curiously enough, fixes on two recent forms of Amusement † as the national 'alterative-medicine,' ignoring Temperance entirely, with its millions of disciples abstaining from the *positive cause* of nervous-debility, and also, quite characteristically, identifies 'the whole Nation' with Cricketers and Riflemen! Notwithstanding foppery and prejudice, he concedes however, the important truth, that while

* *British Medical Journal*, October 10, 1863. Paper read before the British Medical Association at Bristol.

† Anything which takes, or entices, the people from the Drunkenness, will, so far and so long, tend to sobriety: but why *license* the trap you seek to *counteract*?

Alcohol has drained away power and vitality from the nation, *Abstinence* exhibits in its disciples an 'enthusiasm' which rises even to fanaticism!*

§ 74. Should it be objected, that though alcohol cannot directly *give* force, it can aid the stomach to digest more food, which *will* ultimately supply the material of tissue, I reply, this is a blunder in inference and a mistake in fact. For, firstly, alcohol has no advantage as a *local*-stimulant over a little ginger or pepper, in exciting a flow of juice, but, as an anæsthetic, interferes with perfect alimentation, and in especial, arrests that change of matter in the body which supplies the *valuable* material of the gastric-juice itself. Hence, secondly, while more fluid may flow, it is not so *strong* in its digestive power. This, thirdly, agrees with fact, since abstainers have better and more regular *appetites* than moderate-drinkers, and can eat and digest more. Fourthly, alcohol *irritates* the mucous surface of the debilitated stomach, though it may deaden the feeling of pain for a while. Fifthly, experiments have often proved that alcohol *retards* digestion, by hardening the food and precipitating the pepsine of the digestive juice. As Dr H.

* CYCLES OF DISEASE.—Doctors have been writing a good deal lately about 'change of type in disease.' Some of them, indeed, adopting a recent 'heresy,' have said there is no such thing. Dr F. J. Brown, of Rochester, brings forward a startling fact. Formerly, he says, the peasants round him used to be bled once or twice a year, losing sixteen ounces, and walking home many miles without inconvenience. Of late years the same men and their sons have fainted from the loss of from four to eight ounces, and so the practice has been dropped. Dr Brown, who seems to have been a very careful observer, *thinks* [but the *causes*?] that change of type, like so many other things, is periodic. *If the nervous type goes*, we may hope that cholera will go along with it. But the whole question of cycles of disease can scarcely yet be handled scientifically.—*Pall Mall Gazette*.

"The Medical History of Great Britain," says AUTENREITH, as cited by Dr W. STOKES before the Medical Association. "is replete with examples of the *singular obstinacy* with which the English cling to opinions once formed—a circumstance that has materially contributed to obstruct their attaining to general views and impartial conclusions." (*Medical Times*, Aug. 12, 1865.) This reminds me of a frequent remark of the late Professor WHEWELL, that the vice of the English intellect was its fondness for small experiences, and its habit of ignoring *principles*.

MUNROE recently verified the fact last stated, I reproduce his
THREE EXPERIMENTS ON ALCOHOL AND DIGESTION.*

Finely minced Beef.	2nd hour.	4th hour.	6th hour.	8th hour.	10th hour.
I. Gastric-juice and Water.	Beef became opaque.	Digesting and separating.	Beef much lessened.	Broken up into shreds.	Dissolved like soup.
II. Gastric-juice and Alcohol.	No alteration perceptible.	Slightly opaque; but beef unchanged.	Slight coating on beef.	No visible change.	Beef solid; on cooling, <i>pepsine</i> precipitated
III. Gastric-juice and Pale Ale.	No change.	Cloudy with fur on beef.	Beef partly loosened.	No further change.	No digestion; <i>pepsine</i> precipitated

* Dr LANKESTER absurdly perverts these experiments, and represents Dr MUNROE as arguing that beef would *never* be digested *in the stomach* if alcohol be taken! Now all that these experiments prove—and that they do most conclusively—is, that alcohol does not either digest food, or aid gastric juice to digest it, but, *so long* and *so far* as it operates at all, *protracts* that process. Luckily for men the alcohol does not *stop* in the stomach, and when it disappears, a new supply of gastric juice follows, which may complete the digestion. From the *Social Science Review*, however, I quote entire Dr LANKESTER'S delustration, as the essence of incoherency.

“From this experiment Dr Munroe *infers* that the same process goes on in the stomach as goes on in the glass phial; but *nearly all the conditions* are “different in the living stomach *to* [from?] what they are in a glass phial.” Are they? Let us, then, mark, learn, and inwardly digest them.

IN THE PHIAL

1. The contents *are churned*.
2. The temperature is 100 deg.
3. There is the gastric acid juice of the Chemist: and

IN THE STOMACH

1. It *churns* its contents.
2. The temperature is 100 deg.
3. There is the gastric acid juice of Nature: and

§ 75. The prescription of alcoholic liquor partakes of the rankest quackery, not only because the publican is constituted the Apothecary, and the doses are left to be regulated by the appetite of the patient, but because the *true composition* and *strength* of the drinks prescribed are quite unknown. Pauper and other Hospitals are often supplied by Vintners, who have 'friends in court'; and now and then we have complaints from the medical men in respect to the 'stuff' supplied. From the alleged cures, by means of such adulterated liquors, we should be entitled to make a large deduction: but when we *know* that Beers and Wines are really a MESS OF DRUGS, it would be little less than idiotcy to place faith in the notion that any improvement which might follow their use was due to the single agent 'alcohol.'

The report of Mr PHILLIPS to the Board of Inland Revenue, shows that of *twenty-six samples of beer examined, twenty were more or less adulterated with poisonous substances.*

Mr EDWARD WICKHAM, before the committee of the House of Commons on public-houses, says:—"From my experience in brewing, I believe that the great adulteration of beer takes place *in the cellars of the publicans*, although I know it is done by *some* brewers."*

Mr SCHOFIELD, in answer to the question—"Is the adulteration of beer a common thing?" says, "*Very common*, so much so that *the exception is not to adulterate*; and I believe these exceptions are very few."

"That some publicans are in the habit of using *cocculus indicus*," says Dr MUNROE, "I may instance what lately occurred in Hull. Some dissipated men

4. *Pepsine* from the Calf's stomach.
5. Meat becomes digested with water; retarded with Pale Ale; arrested with Sherry; *pepsine* precipitated with both.

4. *Pepsine* from the Man's stomach.
5. *But—a lá Lankester*—here, all things turn topsy-turvy—Ale *softens* meat, Sherry *dissolves* it, and *both* diffuse the *pepsine!!!*

Such a dictum is worthy of a coroner for Diddlesex. Nothing can surpass its astounding assurance, unless it be the following:—

"It is PERFECT NONSENSE to *suppose* that food, if *utterly unacted on*, would remain for some days in the stomach."

Then why 'suppose' this? It is '*perfect nonsense*,'—such nonsense as few else could develope from 'self-consciousness.' What, however, can he have *meant* to say? If food gets *into* the stomach, there seems but two ways of getting it out; either it must be 'digested' and then absorbed (sucked away), or it must be ejected by an emetic-act of the stomach or bowels. It won't *take itself* off, will it Dr? Well, then, if the food won't walk back and won't go on of itself, and if *nothing* acts on it,—it seems to me that it *must* remain, not only 'days' but years, unless the stomach dies and rots before that time.

* Where does the enormous quantity of *strychnine* go to, imported into Hull? Not to the Doctors, certainly.

and women were drinking ale and porter in a dram shop. The landlord had occasion to leave the shop, when one of the women, seeing on the counter a pitcher-full of what she supposed to be porter, drank a good draught, replacing the pitcher. In a very short time, she was seized with nausea and griping pains, and fell down upon the floor in a state of helpless stupor and intoxication. In this condition she was conveyed to the hospital, where the contents of the stomach being evacuated, she was rescued from being poisoned, although it was several days before she was able to be removed. The matter vomited was found to be *a strong solution of cocculus indicus*. The publican acknowledged that the drug had been used by him to bring up his ales to a strength to suit his customers. This was a noted house for GENUINE ALES and BITTER BEER!"

§ 76. The truth is beginning to dawn even upon the *Times*.

"As a rule, medical men know no more of the value of wine as a medicinal agent than anybody else. A glass of sherry is their universal-panacea for want of tone in the system; but sherry may mean *anything but the thing it is really called*.* If a restorative, in sudden-failure of the heart's action or in desperate hæmorrhages, is required, a highly brandied wine may be valuable; but even in that case *pure alcohol*—gin, whisky, or brandy—would be still better, as presenting 'stimulant' in a more concentrated form. *It is a great pity the faculty do not pay as much attention to wine as a medicament, as they do to water*. We are told there is some Spa suitable to almost every complaint the human frame is liable to, *but port and sherry are all the wines the majority of physicians ever recommend to their patients* when special restoratives are required. We want no *transparent humbug* such as we see sometimes put forth with respect to the wines of Hungary, that they are full of 'phosphates,' and are fitted to restore the nervously debilitated; or to another wine, that it is full of 'sulphur,' and is *therefore* good for the itch; *but carefully ascertained qualities of certain vintages for certain conditions of the blood.*" (Sept. '65.)

Aye, Mr *Times*, but though this may be 'desired,' can it be

* An ex-poor-law guardian writes to the *Times* to expose the system on which wine is supplied to the metropolitan workhouses. The better classes are usually apathetic till abuses become very rank, and then exert themselves *for a time*. "During the innings of the gentry, one of the abuses that shocked us most was the horrible quality of wine supplied to the sick. It was called, with an exaggerated courtesy, 'port wine'; but port wine, or indeed wine of any kind, it was not. Logwood predominated in it. *It was supplied by four of the most influential licensed victuallers in the parish, each taking a quarter of a year's supply as his share*. Our first step was to have samples sent in by respectable wine merchants, by which means we obtained for the poor a good article at the same price at which this atrocious compound had been supplied; *but a step of this kind made us very unpopular in the parish, which was pretty much influenced by the great brewers to whom the four licensed victuallers belonged, and their clique*. So by the time we had reduced the rates from 4s. to 2s., besides having enormously increased the comforts of the poor, they succeeded in turning us out, and in replacing their nominees, who immediately restored the privilege of supplying 'port wine' to their four patrons, and reconstructed every abuse which we had demolished."

Says Dr DRUITT (p. 150):—"The wine bought by the poor when sick, and that distributed to them by the various organized hypocrisies, miscalled Charitable institutions, is frightful, and hard as it is to say so, I believe the wine is even worse than the drugs. I have known a vile, hot, south African wine given to a delirious child!"

"The physician should consider *what he wants*; is it the powerful stimulation of alcohol, or the nutritive virtues of wine? If the former, he may just as well give Rickards' British-brandy, at 3s. a bottle, and each bottle will make when mixed with two of water, a liquid equal in alcoholic strength to most sherry, and moreover, such a liquid, flavoured with a bit of damson jam, would be *ipso facto* equal to public-house port."

done? Can we, because we *like* wine, make it do the impossible?

That Wine is not less adulterated than ale, hear Dr DRUITT:—

“Port wine is a *valuable medicine*, old-port a rare luxury; but it is not everybody who can get it, and few past forty *dare drink* it (!). For political purposes our people have been bribed to drink of the ‘drugged chalice’ of ignorant boorish Portugal, who has treated us with a mixture of thanklessness and *rascality* unparalleled. One bottle of good Burgundy will give *twice the flavour* and *half the spirit* that port does. . . . If you prescribe *wine*, let it be *wine*. Take care that your patient is not the victim of audacious falsifiers. Medical men calmly order dyspeptic patients to take ‘their glass of sherry,’ without inquiring whether *this is the product of the Sun in the vineyard*, or of ‘applied chemistry’ in the laboratory.”

The following advertisement from the *Times*, of October 15, 1864, shows what is going on:—

“TO WINE MERCHANTS.—Wanted by a gentleman of experience in making “up the Hambro’ sheries, &c., and having the required plant for that purpose, “the sum of £1,000. Address R. S., care of Mr W. Abbott, 7, Little Tower “Street, E.C.

§ 77. The next extract shows how to ‘manipulate the truth.’

“Can the public get cheap wine that is fit to drink?—and do *Physicians* prescribe it to the extent they might do with advantage? In prescribing *wine*, the judicious practitioner desires to give not merely *alcohol*, but a liquid containing the *saline* and *extractive* parts of grape-juice, especially those powerful oils and ethers which give wine its *bouquet*. True *wine* contains more *mineral* ingredients than many a mineral water.” (P. 22.)

Dr DRUITT quacks-up the Gladstone vinegars as much as he runs down the quack-lauders of other wines. He insists that the *less* alcohol the better, but what of his other statements? It is a shameful imposition upon the ignorant, to assert that the work of *fermentation* in the vat, is “the product of the Sun in the vineyard.” The *oils* and *alcohol* of wine are *just as much* ‘the product of the Brewer,’ and of ‘applied chemistry,’ as the coarsest whisky or fusel-oil ever made in a Dutch distillery, and *just as little* “the product of the Sun in the vineyard.” Dr DRUITT knows this as well as I do: but the other thing suits his *rôle* to print! Again, the lightest and purest of his alcoholic wines contain only some faint remains of the original *salts* and *minerals* of the grape juice—while the unfermented *Wine* of Mr F. WRIGHT contains *all* the soluble salts and minerals which, by the power of the Sun, were drawn into the structure of the vine-fruit—and contains these without any drawback of alcohol or other poison. Dr DRUITT thus illustrates, in reference to *Wine*-and *Ale-puffs*, his own proceeding:—

“Whatever is foolish, or semi-quackish, in these advertisements, is sure to be contributed by a Medical pen, and to be based upon some of those baseless hypotheses which make every age of Physic ridiculous to the succeeding one. They have..bespattered..wines with baseless rationalistic pseudo-chemical commenta, which concentrate into one example all the errors of facts and reasoning with which medical theorists can be reproached.” (Pp. 87-88.)

The offender here alluded to, is Dr W. KLETZINSKY, extracts from whose paper are everywhere seen in the quack advertisements of Max Groggy's Hungarian wine, or Doneman's Spanish, but which English doctors have had the greater folly to sanction and circulate. What an immeasurable power of Gullibility in 'the British Public' to swallow the following:—

1. Malaga contains a large quantity of phosphate of ammonia and magnesia!
2. This has great Nutritive powers for the bones, muscles, and nerves!!
3. Hence Malaga is the wine for Convalescents!!!
4. The quantity of phosphoric acid (not of extractive or alcohol) is the best test of the goodness of wine!!!!
5. In 1000 parts, Tokay has 5, Malaga 4, Sherry $3\frac{3}{4}$, each!!!!!
6. Hence, Hungarian wine is rich in phosphorus!!!!!!
7. As “without phosphor no nerve can form itself, no muscular fibre weave itself,” and as there is ‘No Life without Phosphor,’ therefore Hungarian Wine is Liquid-life!!!!!!!

§ 78. Even the chemist LIEBIG—he who certified that Pale ale was a beverage equally fitted for the *invalid* and the robust!—is made to say that these wines “have a particular restorative virtue, which is to be attributed to the phosphoric acid.” Now were this so, it is clear that after the process of fermentation, with its disturbance, its sediment, and its clearing, such wine must be greatly inferior to the unfermented grape-juice, which can be had at a much less price, and without ‘the drug alcohol.’ Dr DRUITT, however, cannot stand this quackery, though he indulges in some very similar rhetoric in his delirious chapter about ‘odours’ and ‘flavours.’

“Now, as members of our profession have set up all this Nonsense, it will not be out of the scope of a medical writer to knock it down, and to show to the honourable* wine merchants who quote it, that it really is unworthy of their wine and of themselves. [It is quite worthy of both.] The secret attraction of this advertisement lies in the juggle by which the word ‘phosphor’ is substituted for ‘phosphoric acid.’ When the public read of phosphorus in wine, they have a dim vision of something of mysterious virtues alleged to be an element of the brain—which may make us shine in the dark as it does itself! [But] really, phosphorus is just as distinct from a compound of phosphoric-acid, as a stick of brimstone is from Glauber's salts or plaster-of-Paris: the one a combustible body, the other a saline substance, in which, by virtue of combination, all those original properties are of necessity extinguished.

* Fudge! The ‘honourable’ gentlemen have not withdrawn the ‘juggle’ yet; for I saw it in the Journals the other day. “The Cretans are liars”—and will not change.

'There is no evidence known to Science,' says LIEBIG, 'tending to prove that food contains phosphorus *as such*, in a form analogous to that in which sulphur occurs in it'....Further, the various combinations of *phosphoric acid* with lime, magnesia, soda, etc., are of all bodies the most insipid. *They abound in all eatables on which man can live*; a man who eats bread or potatoes takes them *largely*. Life is more dependant on unoxidized sulphur than on unoxidized phosphorus; and I humbly suggest to any wine merchant who wants a *new advertising dodge*, to lay emphasis on the fact that *his* wines contain Brimstone, and that there is

'NO LIFE WITHOUT BRIMSTONE'!

I have been told that an eminent physician, in consultation, asked, 'Don't you think we had better order our patient to drink Carlovitz wine?' 'Why?' 'Because it contains phosphuret of iron.' 'Who says so?' 'Why—have you never heard that it was ordered for the Lady Dulciana—and for the rickety eldest son of the Marquis of Carabbas, *because* it contains phosphide of iron?' My informant bowed in grim silence, hoping the day would come when physicians would discard the logic of Mrs GAMP. I am ashamed to say that I have heard of physicians ordering *phosphate of ammonia* as a 'stimulant'!—as a 'nervine tonic'!!—as '*food* for the nervous system'!!! Even the rottenest theories may, like dung, promote good practice, if they lead to repeated experiments; *but I ask again, has any one any experiments to record on this point?* All these things are humiliating enough when we discuss them in the innermost circles of physic. They make one say to one's juniors, *Vides, mi fili, quantulá, sapientiá curantur ægri.** But we ought to sit in sackcloth and ashes when we find such hollow rationalisticism creeping out of the domain of physic, and invading the counting houses of our wine-merchants *by our vicious examples*. What will become of us if Wine Merchants take to arguing like physicians,—if, when we demonstrate, and say that our wine is hot, or sour, or flat, or flavourless, or else polluted by some horrid earthy taste, we are presented with a certificate assuring us that the *horrid liquid* is perfectly good, because it is particularly 'rich' in *bone earth* and in the *salts-of-guano*? Alas! they have begun it. Dr HOFFMAN has given two analyses—one of Carlovitz;—another of Como, a wine full of *all the grape elements* [but not so full as grape juice], less perfectly fermented, *fruity*.

Max Greger's Carlovitz at 32s. per doz.

Denman's Como at 30s.

	I.	grammes.	II.	grammes.
Total solid matter		2.2720	Total solid matter	8.0216
Ash		.29995	Ash	.5201
Phosphoric acid		.04162	Phosphoric acid	.0735
Iron (met.)		.0027	Iron	.0034

Now, *what are we to think of the matter of fact character of a profession which can recommend wine because of its phosphate of iron, and Carlovitz for its supposed excess of that salt?*"

§ 79. I need not answer Dr DRUITT's question: yet if the *infinitesimal fraction of a grain of iron or phosphoric acid* is so powerful, why do these people rail at homœopathy and its small doses? But, Dr DRUITT goes on to say, "*there are lower depths still.*" Lo! in place of Tokay, we have

* Behold, my son, with how small a stock of wisdom we [attempt to] cure [and often kill] the sick. L.

“The celebrated Stogumber pale ale. In both, the beneficial effect is due to *phosphorus*—Nature’s great agent in the repair of the ravages of time and excess! While acting as a *tonic* and an *alterative*, it is unequalled for *general use*, being as grateful to the *healthy sportsman* as beneficial to the *debilitated!*”

This, after all, is but an abridgment of the certificates which emanated from such men as FERGUSSON, CLARKE, BUDD, and other London-lights, and that were appended to the Pale ale puff of the Barton-beer Quacks. If the puff, in the eyes of Dr DRUITT, be a bastard one, it is at any rate legitimately descended from the Princes of the Profession! * We cannot allow it to be cast upon quackery in ‘general’—it shall be *ticketed* to the backs of its concrete Ancestors.

§ 80. *It is a Providence that no great personage in Church or State has died, who had the sense to refuse being alcoholically medicated.* Had such an event happened, such is the state of the Public mind, such the depth of its infatuation for ‘stimulants’—the instant verdict of the drinking world would have been—“KILLED BY HIS TEETOTALISM.” Superstition is blind and deaf to a degree. No matter how many Princes, Professors, or People may die *under alcohol*—and the statistics are appalling to those who have the sense to look at them (from ALBERT, HINDLEY, and TODD, to nameless Hospital victims)—the plain inference is ignored: men *will not* draw it. Having flouted the truth, having followed their likings in preference to the stern logic of Nature and Fact, they are judicially abandoned to their belief in a delusion and a lie. Not only do men shut their eyes to plain facts—as, for example, that Teetotalers have only *one half* the sickness of moderate drinkers—but they demand that teetotalers shall live *for ever*, and possess an absolute exemption from disease—on pain of having their sickness or death ascribed to their abstinence! Dr CARPENTER, many years ago, urged the important fact, that Physicians in general had only compared *one method of treatment* as a whole, with another method—a gross kind of test, liable to the confusion of various causes in the lump—instead of comparing the results of each method of treatment *with the known course of the disease*, and determining which method had greatest influence in checking or abridging its several stages.

“At present,” says that writer, “*nothing in the annals of quackery can be more truly empirical than the mode in which fermented liquors are directed or permitted to be taken, by a large proportion of medical practitioners.* If their physiological action be really as grossly misunderstood as we deem it to

* See ‘A Glass of Pale Ale,’ in my *Temperance Works*, vol. i. p. 137. 1854.

be—if their benefit can be looked for in little else than their stimulating effects, and the belief in their permanently supporting character be really ill-founded—if we are to distrust the grateful sensations which commonly follow immediately upon their use, and to look for evil in their more remote consequences (as the experience of the results of their habitual employment would lead us to do)—then it is obvious that a great change will be needed in our usual practice in this respect, in order to bring it into conformity with the mere corporeal requirements of our patients, to say nothing of its bearing on their moral welfare. The whole medical art is based upon *experience*; and *the value of any remedy can only be fairly tested by the omission of it in some of the cases in which it has been reputed to be most successful*. Nothing can be stronger than the reputation which alcoholic stimulants have acquired, as affording efficient aid in the maintenance of the bodily strength under circumstances calculated to exhaust it; and yet the most unimpeachable testimony has shown the fallacy of this opinion, and has put ‘universal experience’ quite in the wrong. So it has sometimes [nay often] happened that medical men have assured staunch teetotalers that they would die unless they admitted alcohol into their system as a medicine; but *the patients, being obstinate, did neither, thus falsifying the prediction in a very unexpected measure, and proving that the experience of doctors is not more infallible than that of the public.*”

§ 81. I will give a few illustrations of this truth:—

Horwich, December, 1865.

DEAR SIR,—My father in his sixty-sixth year had a serious illness, the local doctor thought it necessary to call in an eminent Physician from Bolton, —after consultation they prescribed *Beef tea* and *Port wine* as THE ONLY MEANS of saving his life—he refused to take either;—the next day he was much better, and soon regained his usual good health, and lived sixteen years afterwards.

Yours respectfully,

JAMES GASKILL.

A poor man had lost two sons in typhus, by alcoholic treatment, when the sisters took the fever. In distress he wrote for my advice, which I gave, and ordered some bottles of *un-fermented* wine for the girls to drink. A few weeks later, I received the following letter:—

Sheffield, January 19th, 1863.

DEAR SIR,—You will think me long in informing you of my daughters cases, but I wanted to give them time, so as I could be sure of their being better. Now, sir, I can inform you that they are perfectly better, owing to your advice, with God’s blessing; we neither had to give port wine nor brandy, as the doctor wished us to do. We took your advice, and acted up to it. The wine has *proved good* in their case, for it cooled their parched lips and slacked their burning thirst. I return my most grateful thanks to you. I have nothing else to give but good wishes from my heart. May God bless you, and give you health and strength to labour in the great cause you are so able to uphold and defend.

Yours truly,

JOSEPH GARFITT.

By way of contrast, take the following from the President of the Otley Temperance Society:—

DEAR SIR,—I have had six children in the scarlatina at once, and myself at the same time; the doctor said we *must* take wine, or else there would be serious consequences. I told him we were all teetotalers, and I would not get any. Well, we *all* got better, while many of my neighbours died who took wine.

Yours truly,

JOSEPH CLOSE.

Mr CONSTANTINE, of Oxford Street, Manchester, proprietor of the Turkish and other Baths, who well understands his business, writes:—

“DEAR DR LEES,—I beg to forward the particulars of the treatment of a case, first with Port wine, by which the patient's life was endangered, and secondly, with Hydropathy, by which his life was saved. A boy of twelve years of age was attacked with malignant Scarlatina on the Monday. The family doctor desired further advice, and a gentleman high in the Profession was called in on the Wednesday. He recommended in addition to what the doctor had administered, half a tumbler of port wine every hour. The symptoms became more alarming, *viz.* congestion of the brain and delirium. In the mean time, the boy's parents had been strongly advised to try the water-cure, and having already just lost one child by the fever, and seeing the boy getting rapidly worse, they resolved to call in a Hydropath, with the willing consent of the family doctor. The wine was now stopped, and the little patient allowed as much pure *water* as he desired. The treatment was commenced with two wet-sheet packs, of thirty-five minutes duration, the one after the other; a cloth wrung out of very cold water, and frequently re-wet, was applied to the head during the whole time of the packs. The patient was now sponged over with tepid water, without being removed from bed. A roller-towel was then pressed into service as a bandage; the ends being opened out, as much of it was wrung out of cold water as would reach round the body; the dry part passing over the wet; and re-wet every two hours. A wet bandage was also applied to the throat. The following day two wet-sheet packs were given, morning and afternoon. A decided change for the better was now observed; the excitement of the brain and nervous system was subdued; all delirium had ceased, and the patient, as the father remarked, ‘slept like an Infant.’ His recovery afterwards was rapid.”

The Secretary of the Alliance forwards the following:

Mrs B., a married lady in the prime of life, had severe *Dysentery*, her medical attendant tried all the usual allopathic remedies, but could not master the complaint. He confessed himself baffled. The patient was sinking, could take but little nourishment, and was suffering much. She had been an abstainer many years, and before that had seldom taken even a glass of wine. The doctor knowing his patient's strong antipathy to strong drink, refrained from pressing her to take any, until he found that he could not overcome the morbid and irritated state of the system by any drug in his surgery. At last he said: “Your case alarms me, you *must* have some port wine, I have some very choice in my cellar, and will send a little on, as I know you will not like to send out to purchase it.” The reply was prompt: “I cannot take it; so do not send it. I *know* there can be nothing in port wine to relieve me, except the log-wood, and if you think *that* would be of benefit, send me some and I will take it.” The doctor, puzzled, said: “Well, we will try the logwood, but you must tell me how to prepare it.” The chips were got from the druggist, a decoction was made with them, and some spices added, the stuff was taken in small doses, and the patient began gradually to mend from this time. It is

now more than sixteen years since; and the lady has borne several healthy sons, and is still alive and active—as staunch and zealous a teetotaler and prohibitionist as the secretary of ‘the Alliance’ himself. The doctor, surprised at the recovery by such simple means, declared that he would never prescribe again for that patient, but would let *her* prescribe, and he would merely look on and learn.

An extract from the Life of JOHN SNOW, M.D., by Dr B. W. RICHARDSON, with an *addendum*, illustrates also this point:—

“At or about the same time [during the third year of his apprenticeship and when seventeen years old] he also took the extremity of view and of action in reference to the Temperance Cause. He not only joined the ranks of the total abstinence reformers, but became a powerful advocate of their principles for many succeeding years. In the latter part of his life, he occasionally and by necessity took a little wine, but his views on the subject remained to the end unchanged; he had strong faith in the Temperance Cause, and a belief that it must ultimately become a universal system. In 1831-2, cholera visited Newcastle and its neighbourhood, and proved terribly fatal. In the emergency, Mr Snow was sent by Mr Hardcastle to the Killingworth Colliery to attend the sufferers from the disease there. In this labour he was indefatigable, and his exertions were crowned with great success. He made also on this occasion many observations relating to this disease, which proved to him of immense account in after years.”

Communicated by the Rev. THOMAS SNOW, of Halifax.

“My brother became an earnest water-drinker on hygienic grounds when seventeen years of age, and associated himself with the abstinence movement on its introduction into Yorkshire. When sent to Killingworth on the outbreak of cholera, his master provided a supply of brandy as one of the *principal articles needed* in the treatment of the disease. My brother at first declined taking it, but at last obeyed. His success amongst the poor colliers and their families, was such as brought him before the profession as a young man of mark. On his return to Newcastle, Mr HARDCASTLE complimented him for his well directed exertions, when he replied with emphasis, ‘*No thanks to the brandy, for the bottles were never uncorked.*’ He had brought them back in the condition in which he took them.”

§ 82. Case of Mr T. B. SMITHIES, of the *British Workman*. Some fourteen years ago this gentleman’s strength began to give way. He left London, went back to York, his native city, and consulted an eminent physician, who, after he had examined him with great care, told him that he *must* drink two or three glasses of wine a day. “I know your connection with the temperance cause,” added he, “but I tell you, as your friend, that you will die, and that shortly, if you refuse to follow my advice.” Mr SMITHIES had given some consideration to this matter, and thought it was a great mistake for a physician to send him to a wine-merchant for strength. He determined he would not go, for he felt certain “God would not allow him to die for want of wine.” He returned to London, and consulted

Sir JAMES CLARKE. After minute inquiries into Mr SMITHIES' mode of living, came the question, "What liquors do you drink?" Mr SMITHIES replied that he had been a teetotaler for twelve years, and had never tasted wine, spirits, or beer during that time. Now note Sir James' next remark—"I am glad of that, sir, *you will be better sooner without it.*" In this instance we have two eminent physicians—both of whom had studied medicine, and *ought* to have known—expressing opinions quite the reverse of each other. What wonder, when we recollect the frank admission of Dr MURCHISON, of the Middlesex Hospital, when delivering his inaugural discourse to the medical students, in 1861: "*Nothing* is definitely settled as to the mode of administration, and the mode of action, of alcohol in disease."

Contrast these cases with the treatment of the late CHARLES HINDLEY, M.P. for Ashton. At the commencement of his last illness, he was attended by Dr GRANVILLE, his family physician, and Dr BRIGHT. The remedies administered had begun to act, and every hope existed of the patient's recovery, when the late Dr TODD was invited to join the consultation, and under his peremptory orders, a brandy-and-water treatment was adopted. Mr HINDLEY was made to swallow six pints of brandy in about seventy-two hours! When life was fast ebbing, Dr GRANVILLE earnestly begged of Dr TODD to withdraw the brandy, but he refused to do so, and the family physician left in disgust. The same night Mr HINDLEY died! Dr GRANVILLE refused to sign the certificate of his death, and afterwards wrote and circulated a pamphlet proving that his end had been brought about by the narcotic treatment. As to Dr TODD, he has since died a victim to an overdose of his own remedy!

§ 83. Dr A. W. BARCLAY well exposes the Toddistic delusion:

"Let me cite one more example of a false theory associated with a generalization from insufficient data. The supporting plan of treatment, as it was called by its chief advocate, assumes that in all acute diseases the *natural tendency of the process is to the restoration of health*, and that the great aim of the physician must be to keep his patient alive until the period of recovery arrives; it further assumes, that for this purpose the *chief* instrument is alcohol, in some form or other. No one, I should think, is prepared to question that in a certain number of cases, of all except incurable diseases, recovery may take place without the administration of *any* remedy whatever. We might even admit that in a majority of instances this result might occur. But unless our whole past experience is worthless, this is not the case in all; *there are very many occasions when the disease actually kills*, and the life of the patient depends on its being arrested in its progress. Here, therefore, the first fallacy is introduced, in the assumption that what is true of a certain number

of cases is true of *all*, and that what is true in the majority of one form of acute disorder is true of all acute diseases.

“The second error has reference to *the means of maintaining life*; a mere hypothesis being asserted, which is nowhere brought to the test of experiment. Undoubtedly it is the business of the physician to sustain the life of the patient by all means in his power—if life fail, recovery is impossible, but the man who *bleeds*, equally *intends* to preserve life with the man who *stimulates*. On this point the false reasoning is of a deductive kind. The experience of every practitioner must supply him with instances in which the administration of large quantities of wine and brandy to patients suffering under severe forms of typhus, has *apparently* rescued them from impending death. Dr TODD hence argued (?) that a circumstance [agent] which seemed of such value in the maintenance of life in typhus, ought to be similarly efficacious when death was imminent in *other* acute diseases; and that the same means which were powerful to save, when life was fast ebbing away, would be still more efficacious if administered at an earlier period of the disorder and in larger quantities than that usually adopted.

“No experiments are given to show whether the alcoholic fluid acted as a stimulus to the nervous system, or as a general sustainer of life: and the author does not allege that no one died to whom it was properly administered, *because his own cases contradict this inference*. The argument does not prove an induction; it is wholly *a priori*, and the number of cases collected is quite valueless as an indication by the numerical method of the success of the practice. Indeed, so far as can be gathered from the perusal of his lectures, it would seem that though the cases reported number ninety-three, they were not intended to be a contribution to statistics, as they are evidently selected for the illustration of particular points. We must, therefore, conclude that they are given with some idea of proving experimentally the truth of the hypothesis. A study of them seems on the contrary, *to show that they contain in themselves a complete refutation of it*, if they be regarded as fair samples of Dr TODD's practice; if they be not, they are most unfortunately selected. The *eighteen* cases of rheumatic fever reported, give *fifteen* in which there was cardiac complication [heart-disease], and in some of these the [so called] stimulating treatment was fully carried out. In fever, again, *eleven* deaths occurred among the *twenty-four* cases.”

§ 84. The delusive and deadly plan of treating Fever, however, has been the subject of frequent protests from many thoughtful physicians. The celebrated Drs JACKSON and CURRY treated fever with cold affusion. Dr ADAM DODDS, of Worcester, in his ‘Physician's Guide’ (1821), denounced the (so-called) stimulant, and the drug-treatment, as ‘a destructive error.’ He says: “In the stage of excitement they produce the most fatal mischief.” He justly observes that “*all* practice not modified by the perpetual exercise of the reasoning faculty, is *inevitably empirical*.” He points out the fallacy that has survived to our own time, which confounds an increased-pulse with increased-power. “What has been termed increased action is actually a state very distinct. What *appears* to be so, is *obstruction and distension*.” (P. 260.) “Disease,” says

he, "is by nature *so diversified, and the various stages of the same disease require such different management, that the experienced chiro-physician only can appreciate the extent of the difficulty of discriminating the proper remedies.*" (P. 44.) What a blow at the *one 'drink' for all diseases, and all stages of disease!* He says:—

"The brain and nervous system are more disordered by fever in London than in small towns. May not the change which soon takes place be occasioned by the *exhaustion* of a vital principle? The treatment generally adopted for cure, I believe, *is one cause of its fatality.* Bark, wine, and brandy, I have no hesitation in saying, have *destroyed more lives in the country than the sword.* If the patients were allowed to follow their own inclinations in drinking copiously of cold water, exposing the body to cold-air, and continually immersing it in cold-water, and frequently applying cold water to the head, they would stand *some chance* of recovery. The diet should consist of chicken broth occasionally thickened with arrow-root" p. 62).

Eight years later Dr CHEYNE, of Dublin, Physician to the Forces, makes this confession:—

"With many an unfortunate patient, the immediate cause of death was not the fever, but intoxication during fever, while all who escaped were *supposed* to owe their recovery to wine. The common interpretation of this practice is, that wine is given during fever '*to keep up the patient's strength*'; and hence in the natural extension of error, it is supposed that as strong liquors *sustain* those debilitated by disease, much more will they add to natural vigour, and support a healthy man during an exertion of body, under which his unassisted powers of constitution would sink."

Dr BILLING, the introducer of Clinical lectures, in his 'First Principles' (1839), gave no uncertain sound on this topic:—

"In Typhus we should avoid *stimulants as much as possible*, inasmuch as the nervous centres being in a state of congestion, NEITHER THEY NOR OTHER ORGANS HAVE THEIR POWER INCREASED BY THEM; whereas by *indirect* (sedative) practice, we relieve the organs, *and give them an opportunity of recovering themselves*" (p. 174).

"One thing necessary to the recovery of the nervous system is *arterial-blood*: to produce this of a good quality, digestion and free respiration [food and fresh air] are requisite. It is useless to supply other than fluid nutriment. I have found *milk* the best—until some renewal of the nervous energy takes place. The restoration will not be expedited by stimulants. Experience teaches that stimulation except during inanition, only *oppresses*" (p. 166).

"Stimulants do not give power, but only *elicit* that which exists" (p. 167).

Drs MUSSEY, SEWALL, and TRALL, of America, Dr COLLENETTE, of Guernsey, Mr HIGGINBOTTOM, F.R.S., of Nottingham, Mr MUDGE, of Bodmin, Mr BAYLEY, of Stourbridge, the late Mr COURTNEY, of Ramsgate, Dr BEAUMONT, of Sheffield, and many others, have testified to the superior advantages of non-alcoholic treatment in Fever and other complaints: but I can find room only for one testimony here.

The late THOMAS BEAUMONT, M.D., of Bradford, in a letter addressed to me, in 1845, says:—

“In my ‘Essay on the Nature and properties of Alcoholic Drinks,’ published some years ago, I admitted the probability of wines being advantageous in the treatment of disease; and so far from having ‘overlooked facts which betray some want of experience in the profession,’ I have so recognized the *use* of wines in the treatment of fever, that I now feel it my duty to question their *utility*, and to offer some atonement for having conceded an exaggerated, if not an entirely incorrect, estimate of the remedial properties of alcoholic liquors in the treatment of any disease. I am now more convinced than ever, that ‘during convalescence wine is unnecessary, and that patients recover from sickness very well (and I may now say *better*) without it.’

“Allow me to cite an extract from a paper which I read before the Royal Medical Society of Edinburgh, April 7th, 1843:—

“In my own experience, which has extended over nearly thirty years, I have almost invariably rejected the use of wine in the treatment of fever; for early in my professional life, I was engaged in a close attendance of some months on a class of patients, most of whom could not afford to procure wine, in the populous village of Guiseley, where typhus ranged from the ordinary form of continued fever, down to the worst kind of *typhus gravior*. The number of cases, and the severity of the symptoms, were truly frightful. I made ‘a virtue of necessity,’ and contrary to my professional prejudices, proceeded in almost every case without a drop of wine. The result proved most propitious, *the rate of mortality being lower than I ever remember in an equal number of cases*. From that period I have regarded the use of stimulants in fever, and especially of alcoholic stimulants, with considerable distrust. If, indeed, the effect of alcohol be to carbonize the blood—and of this there can be no reasonable doubt—*then its influence must be analagous to that of fever itself*. The truth is, alcohol is a treacherous stimulant, and though it may rouse the depressed powers for a time, is invariably followed by a corresponding collapse.”*

§ 85. An M.D., with three qualifications, thus shows up something of the ‘old practice’:—

“A curious case came under my notice, where a woman, a domestic servant, middle aged, had lived twenty-five years in one family, bore an excellent character, and was very temperate, rarely, if ever touching any alcoholic compound. She fell ill, and was attended by the doctor of the family.

“He treated her for inflammation of the bowels! and ordered brandy to be given frequently—at the same time administering opium in pills. You may guess the effect of these poisons on a brain unaccustomed to them, the poor woman became violently delirious. Her sister not liking the treatment, had her removed and placed under my care. The poor thing had been raving for more than a week, and was not aware of her removal of five miles. The doctor informed the mistress, that her servant was *mad*; that she was almost sure to die; and if she did *not* succumb, she would be a lunatic the rest of her days! It was this opinion which decided the sister to take her away at her own risk. I found her suffering from no symptom of inflammation of the bowels, but from *scarlet fever*. No tenderness over the abdomen but the scarlet rash in force, and the ulcerated throat, complicated with *delirium*

* *Works of Dr Lees*, Vol i. (1853). Appendix, on Fallacies of the Faculty.

tremens. I stopped the brandy and opium, and gave an enema. Bowels had not been moved for ten days! For above a week she raved, and wandered, sometimes requiring three persons to hold her in bed, and during that time would take nothing, scarcely water. Cold constantly applied to the head, enemata, and occasional inhalation of mingled chloroform and æther to quieten her when extra violent, were the means I used, and to my great joy, after an extra inhalation, she slept profoundly, and woke up *sensible*. When her sympathising mistress called to see her, the housekeeper who ought to have died or gone mad, was sitting up, clothed and in her right mind.

“In a case near here of acute Rheumatism, with inflammation of the heart, the same ‘Doctor’ actually ordered one bottle of whisky in every two days, and in addition, one bottle of wine daily. The man being a pauper, chargeable to the parish, a discussion arose at the Ulverstone Board of Guardians (His Grace the Duke of Devonshire in the Chair), and great surprise was excited when the Relieving officer stated the case. Most of the drink was given by wealthy [and ignorant] neighbours. The man actually lived several days under this fearful treatment. The man who prescribed it was only a *surgeon*; a man who *assumed* the position of a medical practitioner, and yet had really only learned *half* his business. There are many such whom the College of Surgeons is turning out wholesale every year.”

These examples, however, are getting rarer every day, for light is spreading. Scepticism is pioneering fuller search into principles and practice; inquiry into both the *facts* and the *philosophy* of the treatment of Fevers. The tide is fast turning against alcoholic narcotism.

Dr WILKS, of Guy’s Hospital, says in the *Lancet*, Feb. ’65:—

“At the present time there are advocates for a universal method in favour of Alcohol in all cases of fever. In my intercourse with medical men, I judge that very many are scarcely alive to the fact that typhus fever is very rarely fatal in young persons, and therefore that they *are too apt to attribute recovery to their medicines*. *Young persons always do well if left alone*. Of this fact, I could now quote a large number of cases in proof; and, on the contrary, the few instances which I have seen end fatally, have been those in which a large amount of stimulant was given from the commencement of the disease; and what perhaps is even more to the point, the *withdrawal of stimulus* in some cases where it was adopted as the method of treatment *has been attended with the most decided advantage*. The only two cases which I have seen fatal of late, have been those of two students, to whom a large amount of stimulant was given and who had the care of the most assiduous nurses.”

The treatment of *Scarlatina*, is already becoming more rational. Witness the following, by Dr JOSEPH MULREANY:—

“The milder type requiring very little treatment, the observations I now make, apply to the malignant and too often fatal variety. TREATMENT: pursued with *invariable* success. Fresh-air, perfect quietude, bed seldom made, *no* beef-tea, custard, jelly, *wine* or *brandy* to be given on any account. Merely, for drink, *cold water*, a table-spoonful at a time, *barley-water*, effervescing lemonade, and water in equal parts, and *milk-and-water*. For food, tea-spoonfuls at a time, bread soft in tea, thick *barley-water*, arrow-root, and boiled milk. Medical treatment as simple as the regimen, to tranquilize

the nervous-system, so as to enable the great centres to *tide over the shock* they must sustain from the poisoned-blood and to preserve from the collapse of diarrhœa." (Used in minute doses, nitric acid; hydrochl. acid; tinc. opii and catechu; ether and syrup.)

Dr T. R. ARMITAGE, in a philosophical work entitled 'Hydro-pathy as applied to Acute Disease' (Lond. 1852), and who had experience of the treatment in the Charity Hospital at Berlin and elsewhere, gives some excellent advice. In typhus he employed cold *momentary* affusion, shallow bath, and *prolonged* warm bath (a little lower than blood heat). Of 16 patients in typhus, *ten* treated by cold water all recovered; of 6 by calomel, given early, 4 recovered. "Of *delirium tremens* we had several severe cases, all of which terminated favorably under water applications' alone. The amount of [typhus] mortality in the *other* clinical department, where the fever was treated in the *usual* way, was 25 per cent. ...Eight [of our 10] were severe cases: one case was complicated with pneumonia, one with violent delirium."

§ 86. Some abridged eclectic comments of the *Medical Times* (Feb. 24, '66, p. 207) on Guy's Hospital Reports (vol. xi.) may be cited here with advantage:—

"Two of the most important papers are those of Dr REES and Dr SURTON, who have recorded cases of *Rheumatic fever*, complicated and simple, *treated without active medicines*. We say 'treated,' because we hold that rest, a regulated diet and temperature, etc., are no mean aids to recovery in acute disease. Although hating every form of 'pathy,' every *deception* practised upon the uninformed or half-informed in the name of Physic, we yet hold that there is *something* in each of the quackish systems now in vogue. None can forget the outburst of wrath which fell upon the head of that accomplished physician, Dr FORBES, when he published the startling article on 'Homœopathy, Allopathy, and Young Physic.' [See § 13.] The seed he then sowed has germinated; the young plant has grown vigorously, and its fruit is seen in the *daily increasing dependence* of British practitioners upon the *restorative powers of Nature*.

"First, let us do a little stock-taking, and see what advances we have made in the direction of *natural* therapeutics. 1. As to the *exanthemata*, such as small-pock, measles, and scarlatina. To those who are striving to discover an agent which will counteract the *specific-cause* of the diseases, we say, Go-on and prosper!—but, in the meanwhile, let us recognize the truth that these *Maladies exhibit a spontaneous evolution naturally terminating in health*; that the Physician confines his administration of drugs to the *relief [removal]* of such disturbances of natural functions as Experience teaches him tend *powerfully [or dangerously]* to reduce the powers of life."

What the writer means to say is probably correct, but he has confused his language terribly. He makes a *Malady* include the *Bonady*: identifies the injury of the Poison, with the vital reaction which eliminates it! This is as illogical as the

Hygieistic nonsense which makes the living organism *repulse* a noxious agent, while absurdly contending that there is no correlative *impulse* (or action) in the poison! The 'symptoms' or *signs* of a disease, are *not* always the malady: they are often Nature's plan of getting rid of the *cause*, and repairing the injury. The Health-tending action is *Vitality*—*i. e.* the forces of the Organism casting out the *cause* of the Malady by the process of eruption, diarrhoea, perspiration, etc., or building-up the impaired structure.

"2. *Continued-fevers.* Unless in some special [case]—and this occurs rarely—all that the Physician has to do, is to take care *that his patient has as much as he requires of appropriate nourishment.* We have no nervous-fear now of leaving Nature to work out her own cure in her own way."

We have shown in previous sections, *what* that way is: it is the way of *getting force into the body, i. e.* to build up the organism and to expel, by the functions of the organism so built up, the irritating poison. There is no other 'Royal road' to cure. 'Nature' or 'Vitality,' curing, means *that*, or nothing.

"3. Then there is, among *Inflammatory-diseases*, the typical disease Pneumonia, which we used to treat, first, by taking away the blood that we 'supposed,' *in our ignorance*, 'fed the flames' raging within, and then by *half-poisoning* our patient with tartar-emetie and calomel. Who, *in his senses*, would dream of such a practice now? Who does not know that the majority of pneumonic patients, will get well when kept in bed, in a well regulated temperature and with a regulated diet, *in a far shorter time* than they did when pneumonia was regarded as inevitably fatal unless knocked down by the powerful weapons of the Doctor?"

The apparent fatality of Pneumonia is here honestly confessed to have been *the fatality of physis*—the deadly result of the Alliance of Doctors, Drugs, Drink, and Depletion!

"4. May not something of the same revolution be seen in our 'management' of *Peritonitis*, and similarly acute diseases? True, we give opium commonly and largely—but how many mild cases are cured with nothing else besides rest and external applications? In view of the present volume of Reports, we have to record an additional proof of the powers of the *vis medicatrix naturæ*. Dr GULL and Dr REES have been treating acute-rheumatism successfully with *mint-water*. [See § 45.] We wonder whether mint-water ever produced symptoms *resembling* acute rheumatism?* Details of Dr GULL's cases are given in twenty-one instances by Dr SURTON, and in four by Dr REES. 'The average duration of the symptoms in the first seven cases, was eight and a half days; in the last six, with heart affected, twenty-three days. Cases No. 1, 5, 12 in males, 6, 9, 7, and 17 in females, confirm the experience that acute rheumatic pericarditis *does not require any special treatment*; that the patient may be out of bed on the 24th day, and the only treatment adopted be a grain of extract of opium every night, and mint-julep, with extract of dandelion,

* This is a silly fling at Homœopathy. Has any one proved that 'mint water' did anything that *simple* water would not do? Does the *Medical Times* claim any *specific-virtue* for the *mint*?—or do Homœopaths say that nothing else is potent but their pills?

three times a day; that it may subside without any treatment, except rest in bed and careful diet, in fourteen days; may, *without medicine*, except mint-julep and a grain of opium for *one* night only, be scarcely detected on the seventh day of treatment' (p. 413). Dr REES says: "The results have firmly impressed me with the belief that the *old* plan of treatment *did great harm*, not only by *retarding recovery*, but by leaving the patient greatly debilitated."

§ 87. Dr S. NICOLLS, the medical officer of the Longford Poor Law Union, in his 'Report' for the year ending 29th, Sept. 1865, gives these figures:—

<i>Fever</i> :	Admitted	142	Recovered	135	Died	7
<i>Scarlatina</i> :	"	33	"	30	"	3
<i>Small-pock</i> :	"	48	"	47	"	1
<i>Measles</i> :	"	8	"	8	"	0

Cases 231 Recoveries 220 Deaths 11

The treatment is altogether without alcohol in any form: and the success will be seen to be the more conclusive when the particulars of the fatal cases are perused:—

"Of the deaths in the fever wards, one was a boy aged 10 years, whose fever became complicated with pneumonia, of which he died; two were members of the Constabulary force from a neighbouring Union, conveyed considerable distances (I consider the journey acted unfavourably); four were women, one of whom was deserted by her husband, leaving six helpless children with her; one was a wandering mendicant brought in from the gripe of a ditch in a hopeless condition; another was an unfortunate, whose constitution had been broken down by intemperance; the fourth was a young woman who was recovering from scarlatina when she was attacked with typhus. Of the other four deaths, one was a case of confluent purple-pock, in a boy eight years old; three were from scarlatina, occurring with very delicate children, not 2 years old. The fever was, I dare say, of as bad a character as in the other parts of Ireland. In many instances entire families were *brought-in in a very bad condition*. I still continue the treatment which for *sixteen* years I have found so successful."

§ 88. I turn for a moment to America, for the sake of confirming the principles and practices of non-alcoholic treatment of Fever, from the results of the experience of both systems.

The fearful 'spotted fever' (*Cerebro-spinal-meningitis*) of America, has hitherto been most successfully treated on the 'supporting' plan. "The Patients have been allowed beef-tea and milk *ad libitum*, with a moderate quantity of alcoholic stimulant. The drugs found most useful are quinine, the preparations of iron, and, above all, opium. Good results from the application of *ice* to the head and spine."* Had the doctors tried the 'supporters' and 'tonics' without the mis-

* *Medical Times*, May 20, '65, p. 522.

called stimulant, but real anæsthetic, the result might have been better. It seems clear that *if* any good resulted from alcohol, it was due to its action being analogous to that of opium and cold—*i.e.* anæsthetic. That alcohol had any good share in the transient success that for a day or two, occasionally followed the treatment, is not proved—nor that it did not do serious injury—but even if the practice be right, the theory is a blunder. When I announce that the mortality ranged from 50 to 60 per cent., what confidence can we place in such a treatment? Dr PAGE gives 19 cases treated with whisky punch and wine—he had only 3 recoveries!

The Boston *Medical Journal*, for Sept. 21, 1865, notices a paper by Dr COTTING, read before the Massachusetts Medical Society, a paper full of crotchets,* but worth quoting for the sake of its *facts*.

“Dr ROESER, Physician to the late King Otho, of Greece, told me that ‘the mortality in the hospital of the Old Russians at Moskowa—who consider disease as a *punishment* by God, and the application of medicine a Sin—is not greater than in other hospitals. They apply only cleanliness and good nourishment.’ 1860.

“The result agrees with our own experience. In the epidemics of 1847-8, we took care of 307 cases of *Typhus* fever *without administering drugs*. The cases were taken indiscriminately, including those in a dying state when first seen. The result was 31 deaths [10 per cent.]

“In an epidemic of *Scarlet-fever* in 1848-9, out of 81 cases *so* cared for, 77 recovered. [Less than 5 per cent died.] The dangerous sequelæ are less frequent than in other cases more acutely treated.

“In 1849, of 40 cases of *Measles*, 39 recovered. The writer sometimes takes care of the more painful diseases, rheumatism, for instance, without drugs. It requires greater painstaking on the part of the practitioner, but the result is satisfactory.”

* He holds that *Disease* (Sickness) is a congenital state—born with us;—a part of nature’s plan, and the result of Divine law. Now if this means that *punishment* is the appointed result of some doings, and *reward* (health or pleasure) the result of others; then Dr COTTING is merely talking old-truths in a new lingo. He advocates the “investigation of the natural phænomena of *disease undisturbed by medication*, as a preliminary to its proper management”—to which we can see no objection. Certainly we *ought* to distinguish between what follows the *fever* poison simply, and what follows the *drug*

It is twenty-six years ago since Dr R. D. MUSSEY gave this deliverance on the subject, in his 'Prize Essay on the Physiological Action of Alcohol':—

"In the remission of the paroxysm of *Continued Fever*, there are probably but few physicians in our country who have seen a large febrile practice during the last twenty-five years, who have not had occasion to regret its unfavourable effects. Under the stimulant practice, trains of morbid symptoms are often aggravated; and new centres of irritation established, which, if not sufficient to destroy the patient, *prolong the period of the fever, and frequently cause relapses, or a lingering convalescence.*"*

§ 89. Amongst the most intelligent practitioners who have had the courage to think for themselves, and the conscientiousness to practice according to the result of their thinking, I must place the author of 'Clinical Lectures'—Dr T. K. CHAMBERS. He only pleads for the *exceptional* use of alcohol (see § 97), and concedes that it has no 'restorative' virtue.† The results of his practice, under the ordinary treatment, were 1 death in 5: under the improved, restorative method, 3 deaths in 121 cases, or 1 in 40. Dr HENDERSON, of Shanghai, reports that by the non-stimulant treatment of fever, he reduced the deaths from 28 per cent to 7. Dr BISHOP, of Naples, reports equal success by the same method. This shows what hecatombs of victims have been slaughtered on the altar of routine!

It has already been seen how the hypothesis of LIEBIG has collapsed—a hypothesis against which I protested in 1843, as utterly opposed to the facts; but protested in vain, so far as the profession was concerned. The *stampede* was not to be stopt. The notion—'ALCOHOL IS FUEL'—penetrated all the medical-journals; was found in the *Westminster Review*; in Johnston's quack 'Chemistry of Common Life'; in LEWES' *Blackwood* articles; in leaders of Newspapers; in every ZANY's letter against teetotalism; in Dr WILLIAMS' 'Principles of Medicine'; in Professor MILLER'S 'Alcohol, its place and power'; and even, in 1855, in Dr CARPENTER'S 'Human Physiology.' Dr TODD made much of it, and it is no exaggeration to say that it

poison: i.e. the disease got casually, from the disease got by drugging. But whether we call the Disease 'order' or 'disorder,'—or whether it comes within the 'plan' of Nature or of Doctor,—it will always be *desirable* to 'manage' to get-rid of it as quickly as may be; for *arrested* skin-action, or suppressed *excretion* of any kind, can hardly be good: whether simply called 'remedial effort,' or 'result of Divine law.'

* Reprinted in Dr Lees' *Truth-Seeker Magazine*, 1846. Price 2s. 6d.

† See the tract entitled '*Renewal of Life*' (3d.), where I have given a summary of his views.

has caused the death of *hundreds of thousands* of human beings.

'Thank God! the lie is Dead.'

The frost bound theories are melting under the influence of light and heat; and signs of an universal thaw in the frigid regions of professional Conservatism are visible. In April '64, a Malt-tax agitator having said that Dr T. P. HESLOP, of Birmingham, had told him that ale and beer were 'the most wholesome drinks in existence, except milk,' the doctor repudiated the falsely affiliated nonsense in the *Daily Post*:—

"I feel so strongly that the majority of mankind and womankind, under ordinary circumstances, get through life better, and enjoy it longer, by abstaining totally from all fermented liquors, that I must not allow any mistake to exist regarding my opinions. The responsibility of my profession, both on moral and physical grounds, in view of this great social question, is so serious, that I venture to inform your readers that they may confidently expect a decided change in current opinions and habits. An illustrious surgeon of the Metropolis told his assembled brethren in the autumn of 1862, 'that the pendulum of opinion was beginning to swing in the opposite direction.' He was alluding to the excesses practised at the bed-side under the counsels of AN ALCOHOLIC FANATIC, whose medical career was, *happily for mankind*, cut short a few years ago, when at the head of London practice."

Dr W. T. GAIRDNER, Professor of Physic in the University of Glasgow, having accumulated large statistics, published them in the *Lancet* of March 12, '64. His figures are well worth studying in regard to the treatment of Typhus. A very great reduction in the quantity of alcoholic stimulants was attended with a corresponding reduction in mortality. *Wine*, reduced from an average of 34 ounces to $2\frac{1}{4}$ ounces per patient, and *spirits* from an average of 6 ounces to $2\frac{1}{2}$ ounces, was followed by a reduction of deaths from 17 per cent. to 10; while of 210 cases of children under the age of 15, treated without any alcoholic stimulants, *all except one recovered*, which one had no medicine given, being 'moribund' when brought into hospital. Later on, Professor GAIRDNER published a series of Lectures in the *Lancet*, and the conclusions arrived at, in relation to the treatment of upwards of 100 cases, are stated in the number for January 21st, 1865. These conclusions do not rest upon mere *statistics*—but on those and observation combined.

"The habitual exhibition of drugs and stimulants has a great tendency to *mask* the disease, to disturb or retard the crisis, and to increase the mortality. This is an opinion formed after a most careful *observation of particular cases in detail, over many years*. I venture to put it forward AS A LAW, that in a large proportion of cases, Typhus fever, left to its natural course, and treated with abundant milk diet *and without drugs or stimulants*, will have its natural crisis before the twelfth day. . . . Milk or buttermilk is with me the staple food in typhus—I know no other food that *can* be depended on. *To give Wine,*

Whisky, and Beef-tea while with-holding milk, is *simply*, in my opinion, to destroy your patient; and the more wine or whisky you give, while with-holding milk, the *more sure* you will be to destroy your patient soon, because you are *thereby* superseding the natural appetite (or what remains of it) for a nourishing and wholesome diet, by a diet—if it *can* be so called—which poisons the blood and checks the secretions, and alters for the worse the whole tone of the nervous system and of the digestion and assimilation.”

§ 90. Not long ago I heard a Missionary from India say, that “everybody knew that when a man had the ‘horrors,’ his life would be in peril unless he had a *little* of the hair of the dog that bit him!” And the *London Review* (Oct. 1863) says:—“Any *rational* doctor will tell us that a common mode of treatment with a patient suffering from *delirium tremens* is to give him at first, doses of brandy every four hours, and then to bring him down to the pump by degrees.” In Dr BILLING’S ‘Principles’ (1841), he says:—“In *delirium tremens* the weakened action of the brain is produced by the absence of accustomed stimulants” — [he should have said, *Natural blood*]; and then, in a note, he gives a case “which *required* the copious and long continued administration of opium, with brandy and water, to subdue it.” I answer, that the proverbial knowledge, the rational-doctoring, and the assumed ‘requirement,’ are one and all utter ignorance, complete irrationality, and fatal mistake. How anybody could ever dream of curing *toxæmia* by alcohol—of strengthening a fat, flabby degenerated heart and bloodless-brain, by *poisoning* them further with the very agent that produced the disease, and by making the blood unfit for nutrition—I cannot conceive. I agree, for once, with Dr INMAN (New Theory of Disease, 1861), that “Delirium may be cured by appropriate *food* without physic; that food is *more important* than physic.” What was the mortality of the old system of *maltreatment* with alcohol and opium, and what from the more rational system now adopted, shall be stated by Dr E. L. FOX, Physician to the Bristol Infirmary:—

“My colleague, Mr LEONARD, tells me that in all his experience, as surgeon to the Bridewell, although many of the inmates of that prison are habitual drunkards, he has never seen any instance of a person becoming affected with this disease a few days after admission, that is, after a removal of all stimulants. The statistics of large prisons prove negatively, that which almost all the most carefully recorded cases in civil and military hospitals prove positively, that *the disease comes on during the persistence in*, and not from the sudden removal of, the accustomed stimulants.

“Granting that alcohol is not, in itself, directly the exciting cause of the delirium, we must look to the conditions its ingestion produces in the circulating fluid. Thus PROUT, and after him VIERORDT, have proved that even a *moderate* use of alcoholic liquors causes both an absolute and a relative

diminution in the amount of carbonic acid excreted. The increased excretion of carbonic acid which accompanies digestion, is considerably checked by the use of spirits. If this is the effect of *slight doses of alcohol*, what will be the effect of large quantities taken daily, without any interruption, or opportunity for more efficient *decarbonization*? Of course the constant diminution in the carbonic acid secreted, gradually causes a *slow but sure augmentation of carbonaceous material* in the blood; so that this fluid will sometimes contain as much as 30 per cent. more of this matter than in health, and will thereby in some cases assume an oily or even a milky appearance. The renewed supplies of alcohol, creating an artificial stimulus to the motions of the heart and frequency of respiration, and thus increasing the amount of tissue detritus, will add still more to the baneful carbonaceous accumulation. It is easy, therefore, to understand how unfit this dark *fatty carbonaceous* blood is for *the nutrition* of any organ of the body, and how especially incapable it would be in its nature and consistence for the due performance of those regulated physical conditions of osmosis in so fatty an organ as the brain.

"The treatment, therefore, will resolve itself mainly into three points. 1. *Eliminate the poison.* 2. *Nourish the brain.* 3. *Subdue the congestion*, when it exists. If the poison is allowed still further to accumulate, the result is death. If the brain is devoid of nutrition beyond a certain point, the result is death. If the congestion be augmented and intensified, the result also will be death; and yet the popular treatment of the present day *tends to prevent* the elimination of the poison, to hinder the cerebral nutrition, and to intensify the vascular congestion.

"May it not, then, be asked with reason—Are the fatal cases due to the disease itself, or to the mode of treatment so generally adopted?

"*The treatment of delirium tremens by alcoholic drinks and opium has been for many years nearly universal.* The alcoholic preparation is generally that to which the patient is supposed to have been accustomed—thus, in Edinburgh it seems usually to be whisky, and in London, gin or beer, or both mingled, have their adherents. In the exhibition of opium there are no limits until sleep be obtained. Of 403 cases, of both sexes, treated in the Royal Infirmary, Edinburgh, during eight years and a quarter, 101 *died*, or 25 per cent., and in the *Glasgow Infirmary*, 50 per cent.; and, although this number is much above the average of the London hospitals, owing probably to alcohol being administered in Scotland in the form of whisky, yet even at St George's Hospital, the number of deaths seem to be 14.6 per cent. In opposition to this we place a record of cases treated by various physicians on the eclectic or the expectant method. Thus Dr PEDDIE treated upwards of eighty cases without alcohol or opiates, and he lost none. Dr LAYCOCK treated twenty-seven, and Dr DUNGLISON, of Philadelphia eighty-three, and neither physician lost any case. Here then are 190 cases treated without alcohol and opiates, and EVERY ONE of these cases recovered.*

"*During the sleep, the patient, in the same manner as one in acute intoxication, has been ELIMINATING the alcohol as quickly as possible.*

"*In a state of considerable congestion of brain, why incur the risk of additional congestion from opium?* 'The treatment without alcohol or opium,' remarks Dr DUNGLISON, 'has restored the individual to health; not, perhaps, as rapidly as brandy or opium, but more permanently. The term 'restoration to health,' is hardly, indeed, applicable to the change effected by the former remedy. In the total abstinence-plan, however, the habit of

* These figures are gathered from an article in the *Medico-Chirurgical Review*, Oct. 1859; and the *Edinburgh Medical Journal*, Oct. 1853, etc.

drinking is broken in upon : and even if it should require a short time longer to restore the individual, there is the consoling reflection, that delay is not useless, and *every day's privation of the wonted stimulant diminishes the feeling of necessity, and the desire for it. One evidence of the good effects of the course is, that they who are dismissed cured, rarely or never return.*

"In Germany and America the tartar emetic has been administered for its emetic effect ; but there seems to be one difficulty connected with its use. In delirium tremens there is often a great loathing of all food, and *it is upon the taking of nourishment that the recovery depends.* If then you create nausea artificially by constant doses of tartar emetic, you are cutting yourself off from one of your greatest means of success, and placing an additional stumbling block in your own way. *All the advantage proposed from its employment may be attained more readily, and far more gratefully to the patient, by the use of PROLONGED WARM BATHS.* These, combined with *cold pads* to the forehead, will effectually allay any *vascular excitement*, and in both varieties of the *delirium* are advisable remedies, as tending to equalise the circulation, and relieve the usually congested state of the internal organs. *These baths have been, I believe, tried on the continent to an extent which it is difficult even to realize, varying from one to twenty hours.* I have found a warm bath of *sixty minutes* most efficacious in subduing violence and excitement in one case, promoting a refreshing sleep.

"Dr LAYCOCK has found, and I am able to testify to the truth of his suggestion, that a *basin of beef-tea the last thing at night is very conducive to sleep in these cases ;* and, if the patient is taking iron every four or six hours, and occasional doses of strong soup, we may wait with confidence for the coming of that restorative sleep, whose approach, if tardy, is yet sure."

§ 91. If alcohol vitiates blood, wastes nervous energy, and *disturbs* natural function—which only means that it *misdirects* available power,—it cannot possibly help to heal wounds, or sores, or repair the lesions arising from accidents. I could fill a book with teetotal cases of remarkable recoveries from accidents, etc., including even several cases of the dreadful *pyæmia*, which is always fatal in drinkers.* Dr INMAN, in his 'New Theory,' naively states the fact involved :—

"Mr LONG had often noticed, after severe burns or scalds, that the parts would not heal, and remained *stationary* for days or weeks, until the patient was treated liberally with *meat*, wine, ale, or porter. Bright red granulations would *then* start-up, and *you might fairly expect* the wound to begin to heal, but it does not" (p. 11). Now, I should not expect it to heal with *poison* circulating in the blood—and, behold ! it does

* In the third volume of my *Temperance Works*, p. 77, a notable case of HOSPITAL GANGRENE is detailed. *With wine*—pure, Spanish wine!—the disease spread like a pest amongst the poor soldiers in the Hospital of the Cordillera, after the battle of Vittoria. 150 men had each a limb amputated, and 250 more died. Suddenly, when Dr BOGGIE took charge of the 800 poisoned patients, the alcoholic treatment was abandoned, and "*the progress of the gangrene was speedily arrested.*" In the first volume of my *Works* (Fallacies of the Faculty), p. clxxi, will be found the refutation of the absurdity that alcohol is a cure for *Scurvy*, and that teetotalism promotes it.

not. The meat and rest did good, no doubt—but there was a *counteracting* agent, wasting vital-force and irritating tissue. —“If, *now*, the patient has his Wine or Malt-liquor *cut-down*, THE SORE WILL HEAL RAPIDLY.” Exactly, for the recuperative energies of Nature—the vital tissues and cells—have a chance to proceed with their work of building up structure out of unpoisoned material. Sir JOHN FIFE attended one of the most severe cases of accident I ever knew—a fine young man in the Jarrow Iron Works, who had a frightful blow from iron falling on his skull and face, and who *refused* porter. To the astonishment of all, he recovered rapidly. His temperance saved him.*

Dr G. M. HUMPHREY, F.R.S., in his excellent remarks on the treatment of wounds,† justly repudiates many still lingering fallacies. He warns against a too stimulating *diet*; commends water-dressing—at times *soothing*, at others slightly stimulating—and adds:—“Many are so beset with the idea of

* Another case:—“I have been a teetotaler for twelve years, but perhaps my experience may be nothing out of the ordinary way, with the exception of what has just transpired, and which I will relate. For four years or more I have had an osseous tumour growing on the right-hand side of my upper jaw. As it grew almost imperceptibly, and never gave me any pain, I was not aware of its evil nature, and had no medical advice. Meeting with a doctor whom I knew, I asked him about it, and he told me what it was, and said he could do nothing to ‘cure’ it—the only way was to have it cut out. He sent me to a friend of his—the surgeon of an hospital—who said that if I did not have it taken out it would kill me. I entered the hospital and had it removed. The operation lasted an hour, and was most severe. My face was cut outside from the lip nearly to the eye, and then the bony tumour, six teeth, and part of the roof of my mouth, taken out *all in a lump!* I lost a great quantity of blood, and was twelve pounds lighter when I got home. I have recovered in a wonderful manner, to the surprise of all, and especially the drinkers, several of whom I heard say, ‘*Well, I shall believe in teetotalism now.*’ A dose of castor oil the night before the operation was all the medicine I had. I had a cup of warm milk, with a little toasted bread, next morning at nine, a draught of cold water at half-past eleven, and the operation commenced at twelve o’clock. I went through it cheerfully and firmly, and at the close received the honourable degree of ‘brave-fellow,’ and was carried in triumph to bed. For fourteen days after I had no other application to my face, inside or out, than cold water and ice; by which time the cut was nearly closed up, and the inside going on equally well. For the same time I was unable to chew, and consequently could not eat meat, but I needed no stimulant. I had no headache, or loss of appetite; in fact I felt nothing but weakness from loss of blood, and the pain and soreness in my face. In sixteen days I went home, and the day after resumed my occupation. The first week at home I increased in weight five pounds, the next three pounds, the next two pounds, and in five weeks was as heavy and strong as before. W. BRAZIER.”

† *British Medical Journal*, Oct. 27, 1860.

‘keeping-up’ their patients, by *brandy, wine, beef-tea, etc.*, that it is to be feared they sometimes *effectually keep them down*:* in other words, the patient’s stomach and system are apt to be so overloaded and oppressed by the amount of stimulus and food exhibited, that the natural rallying and reparative powers are not allowed fair play.”

§ 92. That the use of Alcohol should either prevent, or help to cure, *Consumption*, is a wild and ignorant notion. Tubercle is an inflammatory production, originating in perverted *cell* action. (Can the beginning of morbid-products be any where than in the beginning of life,—in its molecular and final centres? Must not false function be traceable to altered structure?) The young-cells begin by granulating; an *arrest* of their growth has happened, and they are dwarfed and shrivelled, and sink into ‘fatty degeneration’ at the central and oldest parts, *furthest removed* from the springs of nutrition. (We see this in the meninges and in bone.) Now Alcohol, produces *precisely* analogous effects, and must therefore aggravate the general diathesis of weakness and perversion so favourable to the production and development of phthisis. †

That teetotalism is favourable to beauty of skin, is as certain as that alcohol creates grog-blossoms, which are anything but beautiful! The Bible has recorded of the ancient Nazarites, that they were

“In body more ruddy than rubies;
“Their countenance shone as sapphire.”

while every day’s observation shows in the instance of drinkers, blotched, pimped, or fiery faces!

Professor BEALE, F.R.S., in noticing the case of a girl suffering from *Lepra*, “progressing very favourably under the influence of a *liberal diet without beer*,” adds:—“It is important

* Mr SMEDLEY, the philanthropic proprietor of the well-known Matlock Hydropathic establishment, and author of *Practical Hydropathy* (a cheap book which is a perfect Cyclopædia of water-processes), has published some very extraordinary cases of recovery from old sores and wounds, showing the marvellous adaptations of the water-cure to the natural-powers of the body.

† For alcohol in relation to *Heart-disease, Albuminaria, Phthisis, etc.*, see Dr KING CHAMBERS’S opinions cited in my tract, the ‘Renewal of Life.’

I am quite aware of the fuss made by M. FUSTER and by M. SCHNEPP, a German Schnapp-lover, in behalf, respectively, of raw beef and brandy, and of the Tartar cure by inordinate quantities of fermented Mare’s milk (Koumiss)! When they have tried Mare’s Butter-milk, and raw Beef-steaks *without the brandy*, and find these *no more* successful than the former, I shall be prepared to consider their remedies.

to bear in mind that this form of skin-disease, and indeed *almost all forms*, are aggravated by beer."

§ 93. Under the head of *Dyspepsia*, comes a perfect crowd of derangements of the leading organs of assimilation, as stomach, liver, etc. Doctors have prescribed Alcohol for every one of them, whatever their nature, name, or degree, It would take a volume to expose their endless mistakes on this specific point, but after the facts and principles laid down, it cannot be necessary; and I have space only for a few general statements and their illustration. Dr MUSSEY said twenty years ago:—

"In *Dyspepsia*, the alcoholic treatment is now fortunately *almost abandoned*. Experience has *at length taught physicians* that the irritations (chronic or sub-acute) of the lining membrane of the alimentary canal, the capricious excitements of the nervous system, and the slight but obstinate deviations from the healthy standard in the circulation, may be more easily and permanently controlled, under the influence of a plain diet, suitable clothing, bathing, frictions, exercise in the open air, proper hours for sleep, and a light and agreeable occupation of the mind, than under the use of any kind of intoxicating drink, in any manner administered."

True as the doctrine is, it was never believed in England; and, as we have seen (§ 23), is no longer practised in the United States. Yet *some Physicians* have taught it, and those of the highest eminence even here, such as Dr JAMES JOHNSON, Dr PARIS, Dr HOPE, Dr PEREIRA, and others, whose testimonies I have given in my 'Works' (vol. i. p. lxx., iii. p. 76 to 82). Professor MULLER, in his 'Physiology,' lays down the leading principle which all the facts illustrate:—

"A stimulant, too often repeated, *deadens the excitability of the organ*, and renders it insensible to the same stimulus for a long time. Hence may be explained a part of the phenomena observed in the effects of habit; although many things, to the action of which after long repetition we become thus insensible, produce at first, not merely the phenomena of excitement, *but a durable structural change*, whence alone their subsequent inefficiency can be explained.

"A great error has been committed in classifying the *vivifying stimuli* with other stimuli, which do not really contribute to the composition of organic bodies, and do not renovate their power. A mechanical stimulus which modifies the condition of a membrane endowed with sensibility (for example, pressure), *excites*, it is true, a vital phenomenon—sensation—but does not *vivify*, does not invigorate the organic force; while, on the contrary, the essential vital stimuli, viz.—*nutriment, water, etc.*, really contribute to the FORMATION of organic matter."

Nervous energy reduced below par, gradually tempts to excess. This is well explained by Dr LAYCOCK:—

"When the brain is affected it causes a true mania for wine and stimulants. Indigestion being temporarily relieved by alcoholic stimulants, it *lays the*

foundation for an ever-growing habit of taking them in Women, and excites a more and more urgent desire in the drunkard. *It is IN THIS WAY that many persons of position and education have become irrecoverable sots.*"

Dr WATSON, President of the College, is equally frank:—

"Again, you will be continually asked whether you recommend malt liquor or wine, wine or brandy-and-water, white wine or port, sherry or Madeira. Now, it would be very easy to propound some general rules, but it would not be so very easy to vindicate them. Some allowance must no doubt be made for custom. *I believe, however, that most dyspeptic persons would be better without any of these drinks.* . . and even when a favourable effect for the time seems to be produced, there is always a risk of ultimate detriment to the power of the stomach from this habitual excitement."

Dr G. BUDD, F.R.S., in his lecture on 'Functional disorders of the Stomach,' thus speaks concerning Gastric-irritation:—

"The most effectual remedies are (1) *Sedatives*, and other means which lessen the irritation from which the gastric disorder springs; (2) Alkalies and astringents. The diet should consist chiefly of milk and farinaceous food, and *little* should be eaten at a time.* *Alcoholic drinks*, and all stimulating articles of food, *seldom fail to aggravate the disorder*, and should be strictly forbidden."†

Professor CHRISTISON, in his 'Dispensatory,' thus writes:—

"The special applications of wine are partly dietetic, partly *medicinal*. **IT IS AN UNNECESSARY ARTICLE OF DIET FOR ALL WHO ARE HEALTHY, ROBUST, and engaged in an active occupation.** But the *artificial state of the constitution* produced by the habits of civilized life are *supposed* to render it, for some people, a necessary stimulant, especially during exposure to unusual fatigues. *Very few constitutions of this kind really exist among those who are willing to think they themselves possess it.* And there are **EXTREMELY FEW** persons, *not hardened by the habitual use of wine*, but will find that they sustain bodily fatigue and mental exertion as well at the time, maintain it as long, and suffer as little subsequently, under the practice of abstemiousness."

It has been abundantly shown that few persons *can* know what ingredients they are drinking under the names of wine, beer, or stout. Pale-ale can give no better assurance. In Sept. '61, the *Leeds Mercury* reports that "Brewer Cliffe, at Huddersfield, was fined £50 for using *Camomile Flowers* and *Gentian Root* in the manufacture of Bitter-beer." All brewers use *Hop*, which is as bad; and I am greatly mistaken if most do not use something *far worse*. Now, granting that some dyspeptics *are* better, or fancy or feel they are, the question arises—What *did* the feat? Why should it always be the Alcohol? Why not the camomile, gentian, hop, or even strychnine? Prof. NEWMAN has published the following:—

"I have two valued servants, not young, each believing beer to be *essential*

* By the way, will the Bibblers tell me whether this was a case of *Timothy*?—and whether the phrase 'little' implies that food is inebriating!—as they often argue concerning 'wine.'

† *Medical Times*, Jan. 14, 1854.

to her health. I have in vain tried to make both of them believe that it is the *hop*, not the alcohol, which does them good, and that gentian would do as well. My wife, at my suggestion, lately urged this on a lady friend, who made the experiment; and now *I learn that gentian has beaten Bass's ale out of the field, and the lady is fully convinced.*"

But it may not be the hop, or the gentian, or the flowers—or even *faith!* There is the 'Malt extract,' so cracked-up just now, both in Germany and England. The virtue of the Infant's food—Baron Liebig's food!—is said to "depend upon the action of the *diastase* in the Malt-flour;" and the MALT-EXTRACT is being advertised in all the periodicals of the faculty—as good for everything, and a good deal more! It almost rivals the Basso-Allslop puffery.

"MALT EXTRACT.—This excellent remedy has been prescribed, with the happiest results, *by most of the eminent Physicians on the Continent*, in Diseases of the Chest and Stomach, Sore Throat, Bronchitis, Incipient and Confirmed Phthisis, Diphtheria, Gastric Inflammation, Colic, *Failing Appetite*, Hæmorrhoids, Chlorosis, and *for ladies after confinement!* It has rendered great relief to Wounded Soldiers during the late Danish War. The MALT EXTRACT has also received testimonials from numerous Imperial and Royal personages."

I dare say it is a very innocent thing, and will assuredly do good if the patients abstain from the *other* (so called) Malt-juice. I hope, therefore, that Beer-be-ridden, ale-deluded John Bull, will go in for a course of veritable extract—even if he does pay five times as much for it as it is worth.

Let me, coming back once more to the old and paramount topic of Nutrition, the sole source of power, quote in this section the wise words of Mr ERASMUS WILSON:—

"I must not be supposed to undervalue light, air, cleanliness, and exercise, the kindred of food; but if it were my commission to improve the human race—to produce finer, stronger, and better men; to EXTINGUISH disease,—*I should begin with food*; and if it were my duty to lay down rules for the PREVENTION of disease, I should first endeavour to secure the co-operation of man's first and best friend—his *stomach.*"*

§ 94. Amongst all the exceptional pleas for alcohol, that which alleges its benefits in *Nursing*, either for mother or child, is the most utterly groundless.

Sir ANTHONY CARLISLE, F.R.S. (1814), has well said:—

"Of all errors in the employment of fermented liquors, that of giving them *to children* seems to be fraught with the worst consequences. The next in the order of mischief is their employment *by nurses*, and which I suspect to be a common occasion of dropsy of the brain in young infants. I doubt much whether the future *moral habits*, the temper and intellectual propensities, are not greatly influenced by the early effects of fermented liquors upon the brain and sensorial organs."

* *Medical Times*, Jan. 7, 1865. P. 26.

The plain fact is, that if alcoholics are drunk by mothers, the alcohol goes into the milk, and so is given to the child indirectly, and the effects are all the same. It never improves the *quality* of the milk, but makes it more watery, with less casein or nutriment, and even less oil, as analysis has often demonstrated. What the effect is then, Dr INMAN shall state:—

“Through the influence of lactation, children have suffered severely from diarrhœa, vomiting, indigestion, and convulsions*..I have known a glass of whisky toddy taken by the mother produce sickness and indigestion in the child 24 hours thereafter” (p. 44).

Dr E. SMITH states the same fact in ‘Practical Dietary’:—

“Alcohols are largely used by many persons in the belief that they support the system and maintain the supply of milk for the infant; but I am convinced that this is a *serious error, and is not an unfrequent cause of fits and emaciation in the child*” (p. 162).

What a striking modern comment upon the Divine wisdom of old, which prohibited wine from the mother of Samson!

Dr H. BARBER, of Ulverstone, favours me with the following:—

“It is a popular fallacy that Malt Liquor is necessary for nursing mothers, either for giving strength or *making milk*. I know a district where the diet of the peasantry is remarkable for the absence of butchers’ meat, where the women as a rule never take malt liquor, or that vile compound sold in roadside inns, in out-of-the-way places, CALLED *ale*. These women generally have an abundance of milk, nurse their children in many cases for two years, and rarely suffer from debility in consequence. I have seen instances where all the symptoms of over-lactation were conspicuous—headache, giddiness, languor, loss of appetite, and general prostration, milk scanty and poor—derive great benefit *without* malt liquor and continue to nurse without difficulty. In one case, with malt liquors and wine, the patient was unable to retain the milk more than a few weeks, so as to give the breast *occasionally*, depending chiefly on the feeding-bottle, during a family of seven children, yet with the eighth there was no difficulty; there was a plentiful supply of milk for several months, almost sufficient for the entire wants of the child, and no symptoms of debility on the part of the mother. In addition, such was the remarkable effect of the diet in this case, that the mother became two stones heavier than ever she was in her life before. The secret was in substituting *milk* for beer or porter. This patient took as much as two quarts per day. Generally speaking, adults do not find milk altogether suitable, unless made up in the form of puddings, but during lactation I have found very few women who could not take it with advantage, feeling no inconvenience whatever; on the contrary, a glass of milk occasionally, during the day between meals, seems to revive more substantially than the ale used to do. In a well marked case of extreme debility in a young strumous subject, after suckling her child for four or five months, a liberal diet soon effected a restoration.

* The *Northern Daily Express*, some time back, reported an inquest on a child at Monkwearmouth. The Surgeon stated that the child “laboured under chronic inflammation of the bowels. The mother’s addiction to drink would produce the disease. The Coroner said there was no doubt the child had died from *convulsions* arising from inflammation produced by taking the alcohol in the mother’s milk.”

She had been brought up an abstainer. Two other cases I know, of thin, spare women, who are hard working and energetic, and yet have abundance of milk, but they drink large quantities of cows' milk. One, although married, works late hours with her sewing (as a dressmaker), yet she found milk as a beverage infinitely more sustaining than malt liquor.

"Did I tell you of two cases of scarlet fever treated by a surgeon? A young man 21, young woman his sister, 19, both with congestion of brain. Ordered large quantities of Port wine in first stage of fever; the brother took the wine and DIED IN FIVE DAYS, the sister sturdily refused to touch a drop, and *recovered*, and she was quite as bad as her brother. The wine made his head of course ten times worse, and produced violent delirium. This occurred within a mile or so of this town, and within the last three weeks."

§ 95. Into the question of genuine *substitutes* for alcohol, I will not now enter. When it is 'settled' what alcohol *has* to do, and also what it *does*, substitutes may be found. It is enough to know what it *cannot* do. It cannot make milk, but must poison it. It is therefore not good for nursing. It cannot *give* tone, but must lower it. But for the loose ends and vague reasons for which it is usually prescribed, many things will undoubtedly do as well—or rather, few can do *so ill*. That Doctors need not to be informed on this matter, the following cases given by Mr T. NEATE, will sufficiently make plain:—

DEAR SIR,—I have been an abstainer from intoxicating drinks more than twenty-eight years. About twelve years ago, I had a severe attack of Erysipelas and did no work for three months. I employed the reputed best medical man in Stroud, who visited me for twenty-one days. On one day I had a blister placed behind each ear, and three leeches on my forehead; was also bled, and became blind and insensible. A brother deacon of mine, who had for years been an abstainer, was persuaded by his medical man to *drink wine*. He did so—and shortly afterwards *died*. I had made up my mind not to take alcoholics, even medicinally. My doctor used every argument he could to induce me to take port wine, and said that I should get well sooner by taking it. I said—"How much sooner?" "I don't know," replied he: "but probably a month." I answered, "I will remain the month." "Then," said he, "I will discuss the point no further—I will send you something that will do as well?" I *recovered*, and have been in perfect health ever since. Had I taken the wine, and recovered in *spite* of it, the wise world would have inferred at once that it was *because* of it.

Another medical gentleman who attended my son during illness, recommended warm-ale. "We are all teetotalers," said my wife, "will not warm coffee do as well?" "Do you like coffee, Tom?" asked he. "Yes sir." "Give him some, Mrs Neate, it will do quite as well."

Ammonia, Chloric æther, Cayenne, various essential oils, will answer any of the purposes for which alcohol is generally administered. Dr R. D. MUSSEY, in his 'Prize Essay,' says:—

"A draught of bland liquid, as sweetened water, or milk and water, or cocoa, or the *tea of some aromatic herb*; or a drop or two of one of the *essential oils*, as those of the *mint* tribe, diffused in water by the aid of sugar;

or a small dose of carbonate of ammonia; or simple ammonia, well diluted with water,—taken, one or more of them, at a temperature suited to the state of the stomach and of the circulation, and repeated at proper intervals, *will accomplish every good purpose of alcoholic stimulants*, and, in most cases, with less exposure of some of the functions to undue or dangerous excitation.”

One fact is made certain by the experience of Temperance-doctors: *viz.* that alcohol is neither *indispensable*, nor *palpably useful*, in the treatment of common-disease. In truth, so far as the mere plausibility of theory is involved, we seem shut-up to one extreme use of alcohol in fever, corresponding to its one certain property as a *nerve-killer*. This is distinctly conceded in the late ‘Clinical-Lectures’ of Dr T. K. CHAMBERS.

“As to the use of alcohol, I am guided almost entirely by the condition of the nervous system. A very complete prostration and delirium of a low muttering character; tremulous muscles, marked by a quivering of the hands and fingers; a sharp, weak, unequal beat of the heart;—all these indicate that the nervous system is feeling very sensitively the destructive metamorphosis going on, and has its power reduced by its sensitiveness. Then is the opportunity for the powerful *anaesthetic* alcohol, which in severe cases you see me order without scruple, but which I do not rank as part of the necessary *modus medendi* of Continued-fever. Above all, I would caution you against employing wine as a substitute for the true restorative treatment. It may be useful as an *adjunct*, or to assist it, *but never in its place.*” (P. 61.)

Now, had alcohol been employed only in the emergency, and for the avowed purpose here indicated, my present protest against professional and popular Mumbo-Jumboism would not have been needed; but I am yet far from allowing that alcohol is even *necessary* as an ‘adjunct’ to medicine in this extreme case. I know, from experience, that *Cold-water*, or *Ice*, judiciously applied, will produce all the benefit, without any of the injury:—he is a physician poorly equipped, who cannot soothe the nervous system without poisoning it.*

§ 96. In approaching the treatment of CHOLERA, the present accepted theory of its Pathology may be briefly stated. “There is *no ratio*,” says Dr PARKES, “between the two classes of symptoms, the gastro-intestinal and the collapse.” The true relation will appear from what follows:—

1. Numerous cases of choleraic diarrhœa, with vomiting, purging, and cramps; symptoms modified by the violence of the poison, or susceptibility of the subject, where collapse does not supervene, *because* the pulmonary circu-

* At p. 87, Dr HAMILTON points out the poisonous effect of Chloroform. Dr RICHARDSON’S ingenious spray-distributor, whereby æther can be used as a *local anæsthetic*, enables the practitioner now to dispense with chloroform. Thus supposed ‘necessities’ disappear before the progress of discovery and intelligence, while *principles* remain. The Spine Ice-bags may now be superseded by this neater method of anæsthesia.

lation has not been arrested. In such cases if opium be given in such doses as to suddenly stop the purging, the disease will pass on to the stage of collapse, because *the poison has been kept in and accumulated*, until it was sufficient to paralyse the pulmonary circulation.—2. In other cases when this happens without the help of drugs or narcotics, the purging goes on, and hereby the poison is eliminated and reaction occurs.—3. Vomiting and purging are rapidly followed by collapse, and the patient dies. Now as there must be a certain blood-supply to sustain the mucous-secretions, these cease at once when the pulmonary circulation is suspended by the violence of the poison. This is a case of ‘dead lock.’—4. In another class of cases, collapse comes at once, robust sailors falling down on deck ‘as if they had drunk the concentrated poison of the Upas tree,’ says Sir W. BURNETT, in his report on Cholera in the Black Sea Fleet.

These cases indicate the work to be done: the employment of any and every means *which will effectually increase the flow of blood through the lungs and brain*. Thus both bleeding and hot saline injections into the veins have been often of the greatest advantage. Mr S. ROGERS, in his Reports on Cholera in the Madras Army, p. 259, gives the personal experience of venesection by a Medical man:—“There was a sensation as if my heart was ceasing to beat, and a dread of suffocation; this sensation was *instantly relieved by bleeding*, and I recovered immediately.” It obviously relieved the oppressed lungs, and blood was again sent to the intestines to enable them to eliminate the poison. Hot saline injections have usually been followed by increased intestinal discharges; and the reason why the recoveries have not been numerous, is suggested by Professor JOHNSON, M.D., of King’s College Hospital. “The good effect of the injections in giving temporary freedom to the circulation, *has generally been counteracted by the simultaneous administration of opium and brandy*.” For the same reason, if the *bowels are obstructed* by excreta, a purgative might save life by removing the obstruction.

The false assumptions of Doctors led to a similar mistake about Cholera as about Small-pock. They blundered in the last case as to the *conditions* of elimination, and in the first as to the *power* of alcohol to promote the circulation of vital blood. Let us hear Dr G. JOHNSON again:—

“It has been suggested that the analogy of Small-pock and its treatment affords an argument against the eliminative treatment of Cholera. It is said, with truth, that when the treatment of small-pock was conducted on the *theoretical* principle of assisting the development of the pustules and so the elimination of the poison, *by keeping the patient in a close and heated atmosphere*, the mortality of the disease was much increased. It would have been strange indeed if the mortality had not been increased by such a mode of treatment; but it is a result of *shallow observation and reasoning*, to infer that there is any analogy between that mode of treating small-pock and the

use of emetics and purgatives in cholera. The unhappy sufferer who was covered with heaps of bed-clothes, confined in an artificially-heated atmosphere, with closed doors and windows, was not only deprived of the refreshing influence of cool and *pure air*; but was compelled to inhale again through his lungs the morbid-poison which had escaped from his skin. *This treatment was the exact opposite of eliminative.* To eliminate is to put *é limine*, or out of the door; but this irrational treatment rendered elimination impossible, *by closing the doors and windows* through which the poison might have escaped.* The analogy would be much closer with an opposite mode of treatment—one by which a patient should be made to swallow his own evacuations, or one which approaches very near to this in its results; namely, that which has for its object to *restrain* the evacuations by opium and astringents, thus increasing the risk of the morbid secretions being reabsorbed."

The perniciousness of a false theory is well-pointed out:—

"A writer in the *Lancet* (Oct. 21st, '65) says: 'Were we a cholera patient, we should pray to be delivered from men who have only one idea.' This writer is of the class from which he would pray to be delivered. His one idea is, that the secretions are suppressed 'for want of serum; and that by supplying the materials of this, and by the use of means that shall act astringently, we are taking the best means to restore secretion.' What does it avail to refer one whose mind is thus prepossessed by a theory, to such facts as are contained in the interesting paper in the *British Medical Journal* (Oct. 28)? Mr WATKINS there states that, in 1854, the deaths under various modes of treatment, but mostly with opium, having been more numerous than the recoveries, at a period, too, when 'the epidemic was increasing both in the number of cases and in severity,' he treated *twenty-one* cases by repeated doses of *castor-oil*; and of the cases thus treated, *nineteen* recovered. His colleague, Dr LETT, treated seven cases by full doses of opium, and *every case had died.* What will be said of facts like these by a man whose one idea of treatment is, that loss of fluid is to be counteracted by astringents? He will probably argue, that those who recovered while taking purgatives did so in spite of an erroneous and a mischievous treatment; while those who died under the opiate treatment succumbed to the disease in spite of a treatment *theoretically* correct, and which *ought*, therefore, to have saved them!"

The old treatment of Cholera, however, I had already shown elsewhere, to be terribly fatal, ranging from 30 to 67 per cent.; while the Water-treatment, tried in above 1,000 cases, was not attended with a greater mortality than *one* per cent. The anti-narcotic, non-alcoholic treatment is now admitted to be the right one, by all but the incorrigible members of the profession. Dr G. JOHNSON says:—

"There is no known cure for cholera—there probably never will be; but, as the *cooling treatment* of small-pock which, in spite of violent opposition,

* This is the effect of alcohol. It not only retains waste matter by opposing change, but it *stops* the function of the skin. The great relief of the wet-sheet in cholera and fever is from the opposite process. Dr JOHN CHAPMAN, in his tractate on cholera, pp. 36-41, gives a series of cases in which *Brandy* finished off the sufferers. "The collapse was produced by some *toxic influence* acting on the nerves of the heart and brain similar to that of the epidemic disease." (He means the *poison* that causes it.)

was first introduced by SYDENHAM, materially lessened the mortality from that terrible disease, so the general adoption of an *eliminative* treatment of cholera—by means of emetics, mild purgatives, and *copious draughts of water*—* would, I am persuaded, do much to lessen the mortality from this great scourge.

“Stimulants have been given, and given freely and boldly; and the result has been a very general conviction that in the stage of collapse they are not only useless, but positively injurious. Again and again have I seen a patient grow colder, and his pulse diminish in volume and power, after a dose of *Brandy*, and apparently as a direct result of the brandy. The very general conviction as to the *worse than uselessness* of *alcoholic stimulants* in the collapse of cholera is the more to be relied upon, inasmuch as it *has been forced upon men’s minds in opposition to preconceived notions and prevailing theories.*”

From Dr BRAITHWAITE’S tract on Cholera, I cite the following:

“Avoid all *stimulants* [narcotics?] if you can, and let the reaction come slowly. If you feel compelled to stimulate, let it be by spirit of ammonia, champagne, or other *mild wine*. [That is, the *less alcohol* the better.] Stimulants are *generally* injurious: a combination of compound spirit of ammonia with chloric æther, is one of the safest and best stimulants we possess.” (Pp. ii-iii.)

Dr BULLAR is very candid in his confessions:—

“The treatment by calomel [it had 30 per cent. of deaths] was certainly better than that by opium and stimulants [with 67 per cent.]. It left the cases more to NATURE. *Cold Water* is one of the best remedies. The less stimulants, opium, and other violent treatment, so much the milder will be the reaction and consequent fever.” (P. 27.)

Dr PIDDUCK, London, gave common salt (4 to 8 ozs. in a small quantity of water) as an emetic, forcing out the bile. The dreadful symptoms at once abated. “Of 86 cases in the stage of collapse, 16 *only* proved fatal; and *scarcely one* would have died, if *I had been able to prevent them from taking brandy and laudanum*, which counteracted the operation of the salt emetic. It was singular how large a quantity of bile and fœces were discharged after reaction was established, the *retention of which, doubtless, caused the typhus fever* of WHICH SO MANY DIED AFTER [wards].”

Dr H. GREENWOOD, M.D. (*Med. Times*, Jan. 28, '65) says:—

“General treatment in the collapsed state. Admitting air freely; satisfying the thirst by giving *cold water* in small quantities at a time, frequently repeated; IN AVOIDING ALL STIMULANTS, whether internal or external, heat and friction especially included, and *applying cloths wrung out of cold water to the parts affected* by cramps, instead of rubbing them. After the early attack in 1848-9, I saw *no patient sink under it*. It is necessary to distinguish the two

* See *Works of Dr Lees*, vol. iii. p. 70 to p. 78 (1857). Read the whole chapter on ‘medical use,’ including Cholera, Gangrene, Fever, Dyspepsia, etc. I have no space to reproduce the facts. See Appendix, p. clxxxi. See also vol. i. Appendix, p. lxxvii.; cxxvii. (Cholera); cxxxvi. (Typhus fever); clxvii. (Yellow fever); clxxi. (Scurvy). Some admirable observations and excellent cases will also be found in the *Prize Essays* of Drs MUSSEY and LINDSLY, republished in my *Truth Seeker Magazine* for 1846, p. 385 (2s. 6d. post free).

degrees of collapse [to reconcile conflicting degrees of success with varying treatment]. Of twelve persons in complete collapse, six will die; and of those who rally, two will sink during the reaction."

Dr JOHN BALBIRNIE, in his little work on Cholera ('49) said:

"The treatment is no better than blind empiricism. In such a malady especially, *all medicine is hazardous*. The operation of all matters *not fitted by nature for the Nutrition of the Body*, is that of unnatural stimuli to the intestinal tissues. Their tendency is to augment the morbid predisposition of the intestinal tissues. Drug medication, in any case of disease, is only defensible on the ground of one or two principles. 1st. That of counter-irritation, or revulsion; 2nd, That of a direct *specific* suppressive action on symptoms.* With regard to the former, it is a primary canon never to operate directly on the surfaces affected, but always at a distance. This principle is flagrantly violated in the drug-treatment of cholera. The question of the due administration of stimulants is the most difficult problem to solve in the whole range of practical medicine. It is quite manifest that the over-dosing is mischievous in the extreme in other diseases of *exhaustion*; it is *equally clear* that the undue withholding of them will allow a patient irrecoverably to sink" (pp. 25, 29).

This was seventeen years back. *Behold!* what the despised Temperance Reformers have taught, and *untaught*, the Profession. The difficult problem is solved, and the bubbles have all burst! Dr BALBIRNIE, however, wisely added:

"For DRINK, '*Water is best.*' But for the effects of Strong-drinks on the human constitution, the epidemic would be divested of half its virulence. We can, therefore, lend no more sanction to these liquors as popular *preventives*, than we do to them as *curatives*. In every sense, and time, and place, they are *bad*, unmitigatedly bad."

§ 97. It cannot be denied that I have very impartially dispensed my criticisms on the Profession and the Public: but if I, in common with the doctors themselves, heartily denounce quackery *out* of the profession, the Faculty cannot fairly put in a claim for the suppression of the truth concerning its own inner circle. Dr E. SMITH has "submitted that teetotalers should not *abuse* medical men in regard to their prescribing alcohol, since there is at least a probability that the latter are *the best judges.*" But the event and the evidence have shown that this is *not* so: and it is because of this claim—which finds far too ready a response in the appetite and ignorance of the public, especially of the semi-educated, superficial and therefore conceited half-thinkers in Society—that I have been compelled to multiply so many illustrations, and cite so many confessions, of delusion, fallacy, and superstition. I am willing to extend the utmost allowance to the *men*, but I will not abate one jot

* To add to the uncertainty and chaos, I may inquire, "But what when the *symptoms* (as in sickness and purging) are the *means* of cure?" L.

of my censures upon a *system of opinion and practice* so fatal to human happiness. "All men," continues Dr SMITH, "*cling* to their early prepossessions, and medical men are influenced by the *opinion* of the schools in which they were educated, and it is a difficult matter to get those who have long been used to one mode of practice to adopt another." True, and therefore it is the duty of every honest man who *knows* the truth, to do all he can to break the neck of such a slavery and superstition. That it is exactly what I call it, Dr MARKHAM recently admitted. "The imbibition of spirituous drinks may be regarded as a kind of *credo*. Men have a sort of belief in it *which supersedes all reason*." It is thirty-six years ago since Dr CHEYNE said:—

"Those deeply-rooted partialities which exist in favour of strong liquors, are prejudices unworthy of any rational creature. This part of the subject especially belongs to the Faculty, inasmuch as we are *in some measure, accountable for opinions very generally held* relative to the innocuousness of wine and ardent spirits. The benefits which have been *supposed* to flow from their liberal use in medicine, and especially in diseases once universally, and still vulgarly, supposed to depend upon mere weakness, have *invested these agents with attributes to which they have no claim*; and hence, as we physicians no longer employ them as we were wont to do, we ought not to rest satisfied with a mere acknowledgment of error; but we ought also to make every retribution in our power, for *having so long upheld one of the most fatal delusions which ever took possession of the human mind*."*

Yet, ever since that period, the hallucination has been growing worse and worse, and is now, next to the traffic, the most fatal obstacle in the path of Temperance reform. Tenderness has had no effect in awakening a general sense of responsibility in the profession—the *exceptional* pledge was itself grossly abused by them, as a body—and we are now at a dead-lock. *In spite* of the refutation of their silly theories one by one, and year by year, they '*cling* to the fatal delusion,' create in weak men and foolish women the tyrannous lust for liquor which ensures all kinds of domestic misery, and in their periodicals (with two exceptions) have their cowardly and ignorant fling at Teetotalism whenever opportunity presents. In these circumstances, I can see no other remedy than an organized and systematic *exposure* of the whole business;—let the thing be fought out before the Public as a Jury; let the evidence go for what it is worth; the EVENT will be the Verdict, for good or for evil. For myself, I clear my conscience in

* As Dr C. KIDD observes (*Medical Times*, Sep. 9, '65)—"If the Man in the Moon sent a new quack 'sensation' idea, however unmeaning, to the *Lancet*, it would be received before the well-digested deductions of tens or hundreds of thousands of cases. I merely strive to *explain why we have so much inexact writing*, and so many deaths. Our chiefest hopes at present exist in the *outer educated public*. It is a sad but humiliating confession."

giving to the Public, facts upon which to form an opinion on a side which hitherto has not had fair-play, and in protesting against the pretension to *Infallibility* on the side of Physic, in a country where we have generally discarded the claim even when advanced on the part of Faith. The Profession of Medicine is a most honourable one, and its true friends will seek to have it purged of all such empiricism of Thought and Practice as I have had occasion to criticise in the preceding pages. I want no doctor to apply anything I have said to himself, if it does not *fit* him; if it *does*, that is his fault rather than mine.

§ 98. Within the ranks of the Profession are a great number of self-denying, philanthropic, able, learned, and Christian gentlemen—in no profession perhaps is there a greater proportion. I appeal to this numerous and respectable class, then, on behalf of the great cause of Temperance. I ask them to put forth their utmost power within their corporate body, to induce a healthier and happier relation between Temperance and Hygienic philosophy than now exists. Let them *speak-out*, and first put down the Quackery *within* their profession, and then they will find that they have more power to put down that which is *without*. There is one singular and perverse peculiarity about the Drinking-public,—due, I verily believe, to the latent love of the Drink-pleasure, and to the half unconscious desire to find an excuse for its use,—namely, that no matter how many persons die who take alcoholic medicine, their death is never connected in the minds of the drinkers with the use or failure of the alcohol; but if any weak-minded, or ill-instructed Teetotaler should be *persuaded* to take *port* or *sherry* with his other medicines and general treatment, *his recovery is infallibly ascribed to the sole virtues of the Wine!* Now it is on this weakness that medical men really play when they prescribe alcoholics; and the fact should augment the caution, and appeal to the conscientiousness, of the reflecting practitioner.

In fine, then, seeing the general, lax, and indiscriminate way in which strong drinks are recommended to Patients, is a prolific cause of pledge breaking and backsliding, fanning into flame in many Reformed drunkards the dormant spark of their old appetite, fostering in all classes the inherited superstition as to the dietetic virtues of alcoholics, and creating in many persons, especially women, a fatal taste for their use,—seeing that in the progress of Science and Experiment, the successive theories on which the prescription of alcohol was based, have been one by one exploded, and its non-necessity in a large range

of disease has been practically demonstrated,—seeing, moreover, that the *scientific*, as distinguished from the empirical application of Remedies, requires that their specific properties and reactions should be clearly understood, and their scope and limitations strictly laid down,—conditions never hitherto fulfilled as to alcohol,—I earnestly invoke the thoughtful members of the Medical Profession, not only to respect their own reputation as a body of educated men, but to bear in mind the grave *moral* and *social* responsibilities under which they lie in prescribing so questionable, so dangerous, and so abused an article; while I would press upon the friends of Temperance, the correlative duty of insisting, that Alcohol whenever prescribed, whether under the plea of a fancied use, or the justification of a real necessity, should be *dispensed*, like other drugs, not by the Publican but by the Apothecary.

POSTSCRIPT.

§ 99. Though an accident has delayed the publication of this book beyond the period contemplated in the Preface, this can hardly be regarded with regret, since it has afforded me the means of showing much progress in the way of Medical Reform; nay, advance in the very direction indicated in the essay itself. Even as this last sheet is being printed, two pointed illustrations appear in the Medical Journals of the day (March 17th, 1866).

A very competent authority, Professor MACLEAN, of the Netley Hospital, says, in the *British Medical Journal*:—

“Every person smitten with cholera does not, as a matter of course, die; but, judging from recent cholera-literature, *in every case where death does not occur, the fortunate issue is, without hesitation, put down to the remedies used*; and if we have regard to the variety of these remedies, and say nothing of their opposite qualities, the result is very puzzling to those who do not reflect on the fact, that *a certain number of people recover under every variety of treatment*, and, I may add, quite as many where no ‘treatment’ *in the shape of drugs* has been used at all.”

Dr MACLEAN further describes his own personal experience:—

“When struck down by this disease, *I took no drugs*. I drank freely of iced soda-water, to my infinite comfort and refreshment. When I vomited, which I did often, I drank again. A faithful servant, my only doctor, sat by me, and when too feeble to do more than express my wants by a gesture, replenished my cup again and yet again. I vividly remember the resolution then formed—to do unto others as had been done unto me;—never to withhold α

cup of cold water from a cholera patient. With daylight came a kind judicious medical friend, who, *instead of goading me with physic* [what else can physic do?] sustained me with food [per injection as well as by mouth]. With the result I had every reason to be satisfied. *Dangerous reaction, i.e.* high fever, with cerebral symptoms of coma, I have seen; but only when Art, coming not to aid *but to thwart nature*, has interfered with her eliminatory processes by the too free use of opium, astringents, and such like remedies. In such cases [of Art-reaction] we must have recourse to free purgation, *apply ice to the head, and restore the action of the skin by the wet-sheet, cold-sponging, and the like.*"

Dr S. WILKS, of Guy's Hospital, does in the *Lancet*, in substance concede all contended for in 'Doctors, Drugs, and Drink'; and that in language so plain, that it is due to the Profession and the Public that I should reproduce its salient points:—

"First, I beg of you to unlearn one error—that the body is liable to certain special diseases, and that for these there are *particular remedies*. The idea seems to be, that persons are suddenly struck down without any apparent reason (or from 'cold')—and that if these maladies are not *speedily* cured they become *chronic*. . . Every system of quackery is founded on a belief of this kind, the quack having no other object than to pander to popular 'feeling' or 'ignorance.' Our poor patients ask, 'What is good for spasms or the bile?' In much the same way I regard the 'cure for pneumonia,' 'cure for fever,' and 'cure for phthisis.' The fact is, medical men are but human, and gain half their ideas from their own instincts, as much as by actual knowledge, and thus we must confess to many errors which our understanding disallows. For instance, it is an inherent weakness to believe that our ailments have *come about* by a casual or accidental cause [which is *no cause*]. We shrink from the idea of any INHERENT WEAKNESS—that *within* is the source of most of our infirmities. [The internal concause, after all, being an effect, must have had its *generating* circumstances; being, in most cases, of slow though sure growth from *small*, unnoted but *repeated* influences.] Thus it is, that, in our daily obituaries, we witness how A VERY VULGAR DISEASE is GLOSSED OVER BY FRIENDS, and its place is taken by 'congestion of the lungs or brain,' or even liver—whatever that may mean! I want you clearly to see *what* the popular Pathology is, and this may help you to get rid of those erroneous views *which have too long had sway* in the profession. The fact is, there are *few persons* who approach a standard of health [not for want of the DRINK-CURE, at any rate!]—*most* depart from it in various directions; and thus the *liabilities* to particular morbid changes vary greatly in different constitutions. Some, from both, may be always ailing, always in the doctor's hands; and he, or rather she, may consider herself fortunate if she do not fall in the way of that medical man who thinks, by administering every medicine in the Pharmacopœia, he may restore her to a normal typical condition! . . . I mention these popular fallacies, for it is *we* who are assisting to maintain them. We laugh at them in their grossest form, but still hug them to ourselves *when wrapped up by a few technicalities*.

"Look at what happens daily among our out-patients. A tailor, or shoemaker, comes for something to 'cure his indigestion.' We give him some medicine, and send him off. It does him no good, and why? What are you *endeavouring* to do? Nature has given a man a stomach *to be well-used*, and he sits doubling it up all day, and preventing it performing its functions, and he comes

and asks you to give him something which shall be equivalent to allowing the natural process to have its way *in spite of this*. You might as well tie up a horse's leg, and then seek for a pill which would make it run a race as before.

"Our leading daily journal represents faithfully *the vulgar majority* in medical matters; it has Mrs Gamp's philosophy clothed in fine English. . . Now I would ask you, if that Pharmacopœia which I hold in my hand were destroyed, *and all the medicines it represents*,—and with medicines disappear *all quackeries*,—is it nothing to *watch* a case of Pneumonia until resolution occurs—nothing to put a case of Rheumatism—to bed? [Indeed, good NURSING is a good thing.] Is not some art required for these purposes? If we know little, assuredly *The Times* public knows immeasurably less.

"The medical-man is ceasing to be regarded only as a curer of Disease; but he is looked upon as a Custodian of the public-health, and as a medical Adviser.

"So far from the body being liable to acute diseases, and these, if neglected, becoming chronic, *the reverse is the truth*—that diseases are chronic [of slow gradual generation], and *towards the close* acute inflammation is liable to be set-up. [Because the 'weakness' is more and more.] If a man die suddenly of heart disease, scientifically speaking, *the disease* [injury] was not sudden. For months or years before his death, the organ had been undergoing a degeneration, until at last it ceased to beat.* Its unexpectedness merely has relation to whether the change was of the kind to produce *notable* symptoms. Another man dies of Apoplexy, but you all know that *before* that blood-vessel burst in his brain, it had been *undergoing a decay for a very lengthened period*. The same is true of most other diseases. When the avalanche descends and crushes the inhabitants of the chalet in the valley, the catastrophe is terrible and unexpected—but was it not the *gradual melting* of the snow during the summer months that ensured the event?

"The doctor so often steps in with his remedies, that it is difficult to ascertain what changes are due to the natural progress of events, and what to the remedies. *He often attributes to his own Drugs what is due to Nature*.

"Choose any medical man who possesses the greatest confidence in the efficacy of his medicines to *cure* most of the maladies that come under his notice, and place him before cases which you feel sure will be benefited by his superintendence—early phthisis, sore throat, delirium tremens, fever. Would it be unreasonable for any *unprofessional person* to expect to see these patients well on the following day, or on the third or fourth day? Such an expectation might then, for the first time, cause the doctor to *realize the fact* that he had never *intended* to declare his patient would be well before *a certain period*, differing in each case. Here, you see, *time* is admitted; therefore all we ask for is, to be informed *what time*? Does it not seem absurd for any one to declare that he has arrested the course of a disease, when he is *utterly ignorant* of what the natural course of that disease is? Yet, absurd as it appears, we *are* in that position. . . The best advances we have made of late in our art, have been founded on the knowledge of the natural history of disease, and it is none the less an Art, if it has TAUGHT US TO DO LESS rather than more."

The Inaugural Address of DR JAMES EDMUNDS, to the Female

* This is the point, acknowledged at last, which I have had so much trouble in getting doctors to see "Where is the *apparent* evil of moderate-doses of drink?" They might as well have asked me, where are the *steps* of growth in grass or fruit. We see the final result, but the process is gradual. Yet *that* brings it about. L.

Medical College, London,* has just come into my hands, which I cannot refrain from citing here as a proof of progress:—

“Rational medicine has but recently sprung out of a mass of dogmatism, and out of a rude empiricism. It is now growing into a well defined science, and already it has become an art which gives scope to genius in recognising and in treating disease. Happily each day's progress is simplifying the relations between disease and the healing art—and dispelling the superstitious belief in an antagonism between disease which produces prostration and suffering, and drugs which produce poisoning and crippling.

“When the time for preventive medicine has passed by, the practitioner who knows disease will in most cases content himself with seeing that nature has her own free will and way—with attempting to neutralise the effects of man's vicious habits—and with preventing interference with those laws of life, and those conditions of health, which, at all times indispensable, are now essential to each moment of existence.”

Dr MARKHAM in the *British Medical Journal*, April 7th, 1866, thus ably sums up the Cholera business:—

“Have we derived any practical experience from our past acquaintance with cholera to guide us to something better than the barren, hap-hazard, empirical practices heretofore employed? If we have no cure for cholera—i.e. if we have no specific method by which to arrest the malady—we can at least shun certain fatal errors which have heretofore formed the basis of our treatment. For example, if purgation and vomiting be Nature's efforts to eliminate a fell poison from the system, we can at least abstain from opposing her efforts by trying to arrest with opium, etc., the flow of the morbid secretions from the body. If it be true, again, that stimulants invariably increase the obstruction in the lungs, as shown by the increase of the evil symptoms of collapse which so invariably attends their administration, then, surely, we have indication for the avoidance of another fatal error—the giving of brandy and other alcoholic stimulants; for, according to Dr JOHNSON, brandy and opium, so far from being of service, are highly prejudicial to the cholera patient.

“Brandy and opium have heretofore—there is no doubt of the matter—been the basis of the general plan of treating cholera in this country; and brandy and opium, there is every reason to believe, will still form the staple articles which will in future be employed—i.e. so long as the present ordinarily accepted, and as it may be erroneous, theory of cholera is maintained. In the midst of these difficulties, Dr JOHNSON's theory comes very a propos. It tells us that one great work of the doctor in future must be to abstain from doing mischief; that nature must be left to work the cure after her own fashion—by a process

* This Institution is worthy of all support, and is happy in having for its founder, and one of its lecturers, so accomplished a man—one whose brilliant success as a student, and great experience as a practical physician, promise well for its future success. The *Lancet*, as usual, following its trade-instinct, shabbily depreciates a noble effort. Years ago it had recorded the following concerning a difficult Cæsarean operation performed by Dr EDMUNDS:

“Hard cancer of os and cervix uteri:—six days labour:—no dilatation:—abdominal hysterotomy:—placenta cut through and dragged out first:—total loss of blood ten ounces:—treatment soothing and sustaining, no mercury, no stimulus:—child saved and mother convalescent in three weeks.”—(*Lancet*, January 5th, 1861.)

of *elimination*; that the business of art is to *assist* nature, and not to *thwart* her efforts; and lastly, and above all, that the giving of opium and astringents, with the idea of arresting the flow of serum (or, as he regards it, the flow of poisoned *secretions*) from the body, is one of the most fatal arts which *Art* can be engaged in, in the treatment of cholera. Dr JOHNSON'S theory does more than this. It condemns, as *something worse than barren empiricism*, the haphazard throwing into the stomach of different kinds of drugs, and especially of powerfully poisonous drugs."

I have only to express my astonishment that *any* body of men could ever have been found to *call* that article a 'stimulant' which hastens 'collapse'! Does any one know of a parish Idiot who would call the *spur* and *whip* a 'stimulant' if it *had* the effect of making the horse *stand-still*?

§ 100. I have to request of my Temperance Readers that after putting my little work into as extensive circulation as possible amongst medical men and editors of local Newspapers, so that its *facts* and *reasonings* may be thoroughly canvassed and tested,—for I want nothing to stand that will not bear the severest scrutiny,—they will keep me advised of all counter criticisms. These I shall calmly consider, and so far as I think them sound, accept, and use for the modification of statements in any future edition; but in all cases I shall deem it respectful to notice decent criticism, and right to flog indecent; and at any rate, after a year's interval, I propose, in a Sequel half the price of the present pamphlet, to resume the consideration of the trifold topic of 'Doctors, Drugs, and Drink.'

“To place a scientific Medical Education within the reach of Women, with however limited an object, is already a good beginning, but it is to be hoped that the beginning will not be the ending.”—*J. S. Mill to Dr Edmunds.*

THE FEMALE MEDICAL SOCIETY

has commenced a College in London, where Educated Women may obtain proper opportunities for learning Midwifery and the Supplementary branches of Medical Science. The practice of Midwifery will form a wide field of honourable and lucrative employment for women of all grades in social life, and one which is everywhere available. In London alone more than 2000 births occur every week, and taking the fees paid in the usual attendance at one guinea each, it will be seen that an enormous revenue is derivable from this vocation in the metropolis. That much of this revenue might be earned by Educated Women with advantage to the public health, is proved by large statistics, which show that the mortality of mothers from ‘puerperal causes’ in the practice even of the present uneducated midwives, is less than half that which occurs with medical men in general practice. But hitherto England has not provided women with proper facilities for scientific obstetric study; the vocation has consequently fallen into the hands of a low and imperfectly educated class of persons—human life is often sacrificed by officiousness or neglect, and the public is necessitated to employ gentlemen for duties which more obviously belong to the slender, delicate hand of woman.

A *Ladies’ College* will remedy this singular anomaly, and the establishment of a recognised Board of Examiners will enable women who have pursued an appropriate course of study, to pass an adequate examination and distinguish themselves from others.

When the College shall have been developed upon a satisfactory basis, the Society will ask the Legislature for a Charter of Incorporation, and endeavour to obtain a recognised social standing for properly qualified midwives.

Lecturer on Midwifery, and the Diseases of Women and Children, E. W. MURPHY, Esq., A.M., M.D. The course of (at least) 80 lectures takes the same range as those delivered by Dr MURPHY as Professor at University College.

Lecturer on General Medical Science, JAMES EDMUNDS, Esq., M.D. This course will include outlines of Anatomy and Physiology, Disease, with its causation, results, and treatment, and the Principles of Hygiene and Preventive Medicine. It will consist of at least 50 lectures, and is designed as a supplement for the lectures upon Midwifery, as an introduction to more detailed Medical Study, and as an educational course useful to ladies who, by position or philanthropy, are concerned with the spread of sanitary science and the prevention and cure of disease.

The Lectures will be delivered, at the Temporary Offices, 4 Fitzroy Square, on Mondays, Wednesdays, and Fridays, at 5.15 and at 7.0 p.m.

The addresses of Students who have completed their studies, and are well qualified to act as accoucheuses, may be obtained, together with every information, from the Lady Secretary, or from JAMES EDMUNDS, Esq., M.D., Hon. Sec., 4, FITZROY SQUARE, LONDON, W.

The following gentlemen also will answer inquiries:—J. BAXTER, Esq., 15, Paternoster Row, and Hampstead; Colonel HENRY CLINTON, Cockenach Park, near Royston Herts; Professor NEWMAN, 10, Circus Road, St John’s Wood; ARTHUR TREVELYAN, Esq., J.P., Teinholm, Tranent, N.B.; H. C. STEPHENS, Esq., 18, St Martin’s-le-Grand, and Finchley; HENRY CARRE TUCKER, Esq., C.B., 41, Finchley Road; Rev. W. WESTELL, Mare Street, Hackney.

Funds are required to establish a Museum and Library, and to meet preliminary expenses. Contributions will be thankfully acknowledged by any of the above named gentlemen. Cheques to be crossed, London and County Bank, to order of the Treasurer, George Wilson, Esq., 59, Threadneedle Street, E.C.

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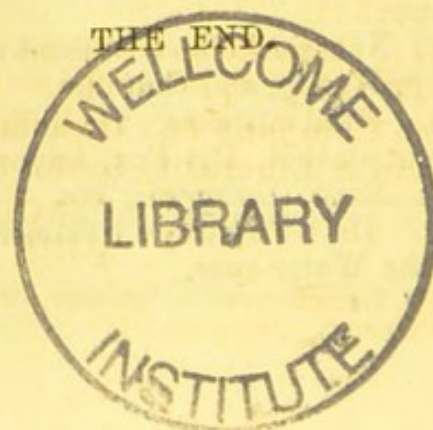
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100. The Author begs a favour of his Reader.

ERRATA.

The reader is desired to make the following corrections with his pen.

- Page 19, line 10 from bottom, *change* the *r* in 'or' *into* *f*.
- Page 61, line 1, *put* 'un' *before* 'influenced.'
- Page 64, and elsewhere, *for* 'Hygeist' *read* 'Hygieist.'
- Page 82, Note, line 5 from bottom, *read* 'aëration.'



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