

A letter to the members of the Temperance Society showing that the use of tea and coffee cannot be safely substituted for that of spirituous liquors : and proposing for their adoption a rule of diet from which those substances are excluded / by James Henry.

Contributors

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Royal College of Surgeons of England

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A LETTER

MEMBERS

THE TEMPERANCE SOCIETY

A LETTER, &c.

A RULE OF DIST

BY JAMES HENRY, M.R.

A LETTER, &c.

16

A LETTER
TO THE
MEMBERS
OF
THE TEMPERANCE SOCIETY
SHOWING
THAT THE USE OF TEA AND COFFEE CANNOT BE SAFELY SUBSTITUTED
FOR THAT OF SPIRITUOUS LIQUORS

AND PROPOSING FOR THEIR ADOPTION

A RULE OF DIET

FROM WHICH THOSE SUBSTANCES ARE EXCLUDED.

BY JAMES HENRY, M. B.

FELLOW OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN
IRELAND.

Dextrum Scylla latus, lævum implacata Charybdis
Obsidet; ———

^c DUBLIN:

HODGES AND SMITH, 21, COLLEGE-GREEN.

1830.

A LETTER

TO THE

MEMBERS

OF

THE TEMPERANCE SOCIETY

OF IRELAND

AND THE FACTS OF THE CASE AS TO THE
MORALITY OF THE TEMPERANCE QUESTION

AND THE PROGRESS OF THE TEMPERANCE QUESTION

DUBLIN :

Printed by WILLIAM HOLDEN,
23, Wellington-Quay.

A BULLETIN

FROM WHICH THOSE INTERESTED MAY BE KEPT

BY JAMES HENRY, M.B.

EDITOR OF THE IRISH AND ENGLISH TEMPERANCE
JOURNAL.

Published by the Author, at the
Dublin Press, Dublin.

DUBLIN :

HODGES AND SMITH, 21, COLLEGE GREEN.

1850.

A LETTER
TO THE
MEMBERS
OF
THE TEMPERANCE SOCIETY, &c.

GENTLEMEN,

IF it be true that drunkenness prevails in this country to an almost unparalleled extent, and if it be also true that the necessary effect of drunkenness is greatly to increase crime and aggravate misery, it would seem that a considerable amelioration in the state of the country might reasonably be expected from the adoption of judicious measures for the suppression of this vice.

Your Society, formed with a view to the adoption of such measures, carries with it the good wishes of all men, and already deserves the double praise of having discovered where the root of the evil lay, and of having used a powerful and well-directed effort to eradicate it.

Having satisfied yourselves by the most careful inquiry that no cause contributes so

much to promote drunkenness, as the almost universal use of spirituous liquors by the sober, you have determined, as far as in you lies, to deprive the vice of this its main sanction and support, by setting in your own persons the example of total abstinence from spirituous liquors. If only that example be imitated, the effect which you anticipate follows as a necessary consequence; drunkenness deprived of the sanction which good men unconsciously afforded it, sinks into contempt; once the object of contempt, it becomes less and less frequent, until at last it is driven from the face of day and compelled to hide itself in the dark retreats of midnight rapine and murder.

In thus pointing out and leading the way to a great moral reformation, you have been actuated by a single motive, the desire to benefit your suffering country and so to discharge your duty towards your country and your God; but the reward which awaits you and all who will assist you in your noble effort is two-fold; besides the rich satisfaction of having conferred a benefit upon your unhappy country, the additional reward awaits you of a greatly improved state of bodily and mental health, the natural consequence of abstinence from spirituous liquors. That

such abstinence is calculated to promote health of body and vigour of mind has been the almost uniform result of the inquiries of philosophers and physicians in all ages of the world ; and in all countries and ages the principle has been acted upon by many of the best and wisest men. Not only has this principle been maintained by the few in all countries and at all times, but it has even been adopted and acted upon by entire nations. The Lacedæmonians and Romans so long as they were great and free, abstained from the use of wine, and to drink that liquor even in moderation was by them considered luxurious and effeminate. In more modern times, we know, that the use of wine is absolutely prohibited to all the numerous tribes and nations who profess the faith of Mahomet. But although abstinence from strong liquors has been at all times recommended by the few, and although it has been proved to be practicable by the experience of nations, yet has it happened that in this country, down to the present moment, no effective or even vigorous effort has been made to banish these destructive liquors ; not even in this country where more than in any other such an effort was called for by the unparalleled wretchedness of the lower

orders. The honour of having made such an effort belongs to your Society; the judiciousness of the means you have employed is the guarantee of your future success; you have led the way not only by precept but by example, and have called upon your countrymen and fellow-citizens in the name of their country and their God to imitate that example: you have addressed yourselves to their hopes and fears, and have shown them that their own interests are concerned as well as those of the suffering poor. It is impossible that this appeal shall have been made in vain; it is impossible that the example of so many amiable and well-informed men shall go for nothing: it is impossible that the clergyman's ⁽¹⁾ warm and affectionate address shall not make an impression upon some hearts, and that the clear and simple reasoning of the physician⁽²⁾ shall not convince some understandings.

But whilst I rejoice at the establishment of your Society and anticipate with pleasure its future progress, I regret to see that it is threatened by an imminent danger—its members are divided among themselves, and whilst there is disunion among the leaders there must be confusion and want of discipline in the camp. They have indeed, in

conformity with their new principle, abandoned their former habits, but they are altogether at a loss to determine what new habits to establish in the place of those which they have abandoned: some inquire whether or not a new stimulus should be substituted for that which has just been laid aside; others, taking the necessity for a stimulus as granted, discuss the question whether that stimulus should be tea or coffee, or opium, or tobacco; many have already substituted one or other of these intoxicating substances in place of their accustomed wine or spirits: the majority are inclined in favour of tea and coffee, but are by no means agreed as to the quantity of them that should be taken, or as to the times of taking them: some, on the principle that an artificial stimulus is absolutely necessary to the due performance of digestion, take coffee immediately after dinner; some thinking that coffee disturbs digestion wait until the usual hour of tea, and then take tea or coffee, or both, and these in larger quantities than formerly, because not having taken wine or punch after dinner they feel an increased degree of thirst at tea-time. Others take coffee immediately after dinner, and again coffee or tea at the usual tea-time.

Others again who were accustomed to take two or three glasses of wine or a tumbler of punch or a draught of ale at bed-time, and who still feel thirsty at the usual hour, and have no relish for cold water, take their tea or coffee just before going to bed.

Your Society is threatened by two manifest dangers arising from this diversity of opinion and practice. The first and lesser danger is that it will on this account make less progress in the opinion of the public, and will be the more likely to have its numbers thinned by defection; its members adopting first one plan, then another, and then a third, and at last perhaps, dissatisfied with all, returning to their original habits. This is particularly likely to happen to new adherents, who cannot be supposed to have as much zeal in the cause as the first members.

The other danger to which your Society is exposed is still greater; it is the danger that habits injurious to your own health and prejudicial to the interests of the community will take the place of the habits which you have laid aside; that the use of one stimulus will be exchanged for that of another, and that some other intoxicating substance as opium, or tobacco, or tea or coffee, will

occupy the place of spirituous liquors. That recourse will be had to some such substance by those who renounce the use of spirituous drink is rendered probable by the experience of Mahometan countries, where the prohibition of wine has been followed by such enormous excesses in opium, coffee, and tobacco, and is in accordance with the known passion of man for that high state of excitement, which for want of a better name I have called intoxication, a term commonly applied to that particular species of excitement only, which is produced by spirituous drink. Of the intoxicating substances which I have mentioned, tea and coffee are those to which the inhabitants of this country are most likely to have recourse as a substitute for strong drink, both because the taste for them is already formed, and because their use is approved of and recommended ⁽³⁾ in a pamphlet lately published by your Society, and attributed to a gentleman of the highest eminence in the medical profession. The high authority of that gentleman and the sanction of your Society cannot but go far towards establishing in the public mind the opinion which it has been always too ready to entertain, that the use of these substances is not only innocent but even salutary.

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such viands as the individual has found by experience to agree best with him.

IV. That those persons who dine late or go to bed at an early hour should take but one repast after dinner.

V. That those who do not feel hungry in the evening after dinner, and who from the nature of their avocations are fatigued and thirsty at bed-time, as is usually the case with those who lead sedentary lives and follow literary pursuits, should take some one of the following liquors before going to bed. In summer either the "Limonade," or "Eau sucrée" of the French; or imperial pop; or ginger or spruce beer; or diluted raspberry vinegar; or soda water and warm milk. In winter, cocoa, or a glass of hot water through which a portion of currant jelly, or some kind of jam has been diffused, as for instance, black or red currant, or damson or gooseberry jam.

To either of the last mentioned drinks those who please can add a biscuit or a little bread, and thus enjoy a very pleasant, light, and refreshing supper.

VI. That for tea and coffee at breakfast be substituted, according to the tastes and circumstances of individuals, bread and butter and eggs, conserves, rice, cocoa; cold

beef, or mutton, or ham, or fowl ; broiled bacon or a mutton chop, or fish ; in summer, fruit ; for children and young persons, flummery, stirabout, or bread and milk.

VII. That according to the practice of the French a snack be taken every day between breakfast and dinner by those who dine late and who have not eaten flesh-meat at breakfast. This snack to consist of any of the articles of food above-mentioned.

The first of these rules being the very principle and essence of your Society, and its beneficial effects having been shown by your own publications ⁽⁵⁾, I shall not dwell longer upon it than briefly to recapitulate the arguments on which it is founded, referring for more ample information on the subject to the publications themselves.

1. The temperate ⁽⁶⁾ use of strong liquors at and after dinner is unnecessary because the stomach of a healthy man is sufficient of itself to the performance of its office ⁽²⁾. Spirituous liquors are to the stomach of a healthy man what spectacles and crutches are to the eyes and limbs of a man who has the full use of both.

Spectacles and crutches are not only useless ⁽⁷⁾ to him whose eyes and limbs are

unimpaired, but injurious, producing those very evils of which when judiciously used they are the proper remedy, so

2. Spirituous liquors are not only useless to the stomach of a healthy man but positively injurious, retarding and deranging the digestive process, and laying the foundation for numerous and afflicting diseases ⁽²⁾.

3. The most temperate use of strong liquors has a manifest effect on the mind; the thoughts, words, and acts of a man who has taken even a small quantity of wine or spirits, and who is far from being what is commonly called intoxicated or even tipsy, being in a greater or less degree withdrawn from the control of the will, and having derived from the stimulus of the liquor an undue degree of vivacity, which is every now and then manifesting itself in thoughtless expressions afterwards the source of great trouble and unavailing regret. This effect of the most temperate use of strong liquors is matter of daily observation.

4. The temperate use of strong liquors is expensive and hardly reconcilable with good economy.

5. The temperate use of strong liquors is dangerous, because it has a continual tendency to degenerate into intemperance; this

is in conformity with the general law of nature, that all living bodies or parts of living bodies soon become insensible to stimuli to which they are accustomed. Hence the demand for a stronger stimulus to produce the required excitement. It is in this way that the habit of intemperate drinking is most commonly formed; the stomach demanding a larger and larger quantity, or as it is called, allowance of drink, until the temperate man becomes a drunkard almost without knowing it. Drunkenness once induced, is destructive to the brightest, fairest prospects here, and is threatened with eternal condemnation hereafter.

6. The last and perhaps the worst evil which attends the habitual use of spirituous liquors is the sanction which is thus afforded to drunkenness even by those who continue temperate themselves. It is no disgrace to be seen drinking spirituous liquors because they are used by those who are known to be temperate; as it is no disgrace to be seen drinking, drunkards are not ashamed, and thus it is that drunkenness walks openly in our streets, and shows her filthy countenance even in our parlours. Let the temperate abstain; then shall the intemperate be known, and have no excuse, and drunk-

eness, discountenanced and shunned, no longer dare to show herself beyond the haunts of the vices which are her meet associates.

If such be indeed the consequences of the habitual use of spirituous liquors, what part are the wise and good, the lovers of their country and of mankind called upon to act? Shall they listen to the appeal of your Society, and imitate its noble example, or shall they go on as they have hitherto done, and, in obedience to the voice of fashion and a false popular opinion, persist in an indulgence which is in its immediate effect injurious to health, and in its remote effect subversive of morality? The wise and good cannot hesitate in their choice; with one accord they will banish these liquors from their tables and reserve them for their legitimate use, as medicines and cordials in disease; in cases of extreme cold and exhaustion; and in very advanced age, in which the utility of wine is so great, that it has been, not unaptly, denominated the milk of old age.

On the subject of the second rule, I shall only say, that the thirst which is felt about two hours after dinner, and which is the natural effect and sure evidence of a

healthy digestion is best assuaged by a draught of cold water. Such a draught is then a luxury, of which wine and spirit drinkers have no conception; but that it be so, the water must be of a good quality, which it seldom is in the houses of spirit drinkers, who are usually more solicitous about the state of their cellar, than that of their cistern. When I have called for water in the houses of such persons, I have generally found it extremely disagreeable; a bad or musty flavour having been communicated to it by the vessel in which it was kept, which I have sometimes ascertained to be no other than an old wooden pipe or hogs-head that had not been cleaned out for years. Water intended for drink, should be kept in a large loosely-covered cistern of lead or stone, placed in a vault or some such cool situation, and frequently cleansed; such care will be amply rewarded by the abundance of cool, refreshing, and wholesome drink which will thus be always ready for use ⁽⁸⁾.

The remaining rules are necessary to complete the plan of your Society, to promote its success, and to render that success a real advantage to the community; they recommend a diet from which tea and coffee are

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The first of these is the fact that the
theology of the time was not a
theology of the church, but a
theology of the state. The church
was not the center of the universe,
but the state was. The church was
not the source of authority, but the
state was. The church was not the
source of law, but the state was.
The church was not the source of
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justice, but the state was. The
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[illegible]

disturbed. When I was twenty-six years of age my indulgence in the use of this liquor was so little restrained that on several occasions I drank of it twice in the course of the same evening. My sleep was now so entirely deranged that I spent a considerable part of every night in misery ; my sufferings being always greatest on those nights on which I had taken the greatest quantity of tea. On such nights I did not fall asleep until two o'clock in the morning or later, although I went to bed at my usual hour, eleven. While I thus lay awake, my agitation both of mind and body was indescribable ; the pulsations of my heart were sometimes quick and faint, sometimes so violent that I could not lie on my left side, and then again they became scarcely perceptible, and seemed to cease altogether for several moments ; at such times I felt as if I were dying, and I appeared to be so to those who came to my assistance. If I did fall asleep I awoke before long in a similar agony, or with a start which was sometimes so violent that I have been completely out of bed and standing on the floor before I recovered sufficiently to know where I was. I wished to sleep that I might avoid the distressing sensations which I felt while awake, but I feared to do so, lest

my awakening should be accompanied by one of those frightful agonies. My sleep at night being thus almost entirely lost, I used to fall asleep in the day-time on a sofa, especially after dinner, when I was least under the influence of tea; but even this sleep, although the most refreshing which I could obtain, was unsound and disturbed by frequent startings. At last the distressing sensations which I have described, began to seize me before I went to bed, and I have more than once, while in the society of my family, felt myself so agitated, without any apparent cause, that I was unable either to speak or to think deliberately, or even to remain in one position, and have been obliged, that I might not be thought insane, to rise abruptly, hurry out of the house, and take violent exercise in the open air; by this measure I always succeeded in restoring myself to tranquillity. These symptoms never came on me immediately after taking tea, but after an interval of three or four hours: in the morning, and at the same interval after drinking the tea, I had a similar paroxysm, but it was much less violent. As the paroxysm came on at such a considerable interval after the use of tea, or coffee (for I have experienced precisely the same

effect from the latter as from the former) it was long before I guessed at its cause. I thought at different times that I was suffering from different diseases, and used various remedies in vain to remove them: at last I determined to renounce the use of tea and coffee; I put my resolution into effect about two years ago, being at that time in the thirtieth year of my age: all my distressing symptoms vanished from that moment; the very first night I slept soundly; and I have never had any return either of sleeplessness, or of starting, or of the sensation of imminent death, unless when on some rare occasions my resolution has given way, or when for the sake of the trial I have for a day or two returned to the use of those liquors. On such occasions my former symptoms returned with such uniformity that I cannot have the least doubt that the free use of tea and coffee and those symptoms stand to each other in the relation of cause and effect."

This case with the circumstances of which I was fully acquainted, made a deep impression on my mind; I drew from it the conclusion which appeared unavoidable, that tea and coffee act as a poison upon some persons. Turning my attention to the subject I found that such cases were far from

uncommon. One very similar presented itself almost immediately.

A. B., a gentleman, who like the subject of the foregoing narrative had always abstained from spirituous liquors, and who had like him indulged in the use of tea and coffee, although by no means to the same excess, gradually lost his rest at night; lying awake for several hours after he went to bed, and seldom falling asleep until two o'clock in the morning. At the same time his appetite became bad, his spirits extremely low, he had a fixed pain in the region of the heart accompanied with palpitations, and his life seemed to be in danger. By an accident he took neither tea nor coffee on one evening, and that night he fell asleep immediately on going to bed, and slept soundly all night; he abstained the next night, and that night also slept. He then renounced tea and coffee altogether; his distressing symptoms disappeared, and he has ever since enjoyed sound sleep at night, and his health has been perfectly good. On one or two occasions having for the sake of experiment returned for a single evening to the use of these substances, he has on those occasions had a return of the sleeplessness and of his other nervous symptoms.

Such cases present themselves frequently to physicians. I have chosen the two which I have just related because I had peculiar opportunities of being perfectly acquainted with both, and because there are two circumstances common to both which render them of peculiar importance to the elucidation of the present question. The gentlemen who are the subjects of these cases used only black tea, and had during their whole lives rigorously abstained from spirituous liquors.

1. The subjects of these cases used only black tea. These cases therefore show the fallacy of an opinion maintained by many persons, and even by some medical men, that it is only green tea which is capable of producing injurious effects on the health. If these cases be compared with the following cases related by Dr. Edward Percival, in a paper⁽⁹⁾ on the deleterious effects of green tea, it will be seen that the two kinds of tea are capable of producing precisely similar effects.

“ A gentleman intending to walk some
“ distance along the coast of Devonshire, set
“ out in the morning of a hot summer’s day,
“ having previously breakfasted on strong
“ green tea, a beverage to which he was not

“ unaccustomed. Having walked twelve
 “ miles he refreshed himself with a repetition
 “ of the same meal. Resuming his journey
 “ he walked nine miles further without
 “ hurry or fatigue. The heat of the day
 “ indisposed him to dine, as usual, on ani-
 “ mal food ; and he therefore called a third
 “ time for green tea, and drank copiously of
 “ a strong infusion, eating at the same time
 “ only bread or biscuit. He retired early
 “ to bed, resolving to use a similar diet on the
 “ following day.

“ Soon after he lay down, he began to
 “ feel some unusual and distressing sensa-
 “ tions about the præcordia as if he were
 “ continually on the verge of fainting. But
 “ being much disposed to sleep, these sen-
 “ sations were for a while disregarded, and
 “ he passed two hours in a kind of troubled
 “ slumber, waking at short intervals. His
 “ respiration became irregular and op-
 “ pressed ; and his heart sometimes palpi-
 “ tated, and at other times seemed motion-
 “ less. At length he awoke suddenly and
 “ entirely, as from a struggle of incubus.
 “ He now experienced acute pain, as from
 “ spasm in the region of his heart ; and in
 “ spite of all his efforts he felt as if he were
 “ continually falling into deliquium. His

“ pulse was feeble, irregular, and intermit-
“ ting in an extraordinary degree; and slight
“ fits of apparent asphyxia recurred every
“ five or six minutes. He had with difficulty
“ roused his servant at the inn where he lay,
“ and procured (from an invalid companion
“ of his journey) two opium pills, consisting
“ of one grain each, and a small quantity of
“ cold brandy and water. Deriving some
“ temporary relief from these remedies, he
“ again composed himself to sleep; but after
“ an hour’s slumber, almost as distressing as
“ that which he had before endured, he
“ awoke in great agitation, gasping for
“ breath, and bedewed with a chilly mois-
“ ture. Another pill of opium was pro-
“ cured, and a glass of hot brandy and
“ water of greater strength than the former.
“ From these he soon derived the wished-
“ for relief; and at length fell into a sound
“ and natural sleep, from which he awoke
“ at his usual hour in the morning in perfect
“ health. It deserves remark, that although
“ perfectly unaccustomed to the use of
“ opium, or brandy in any degree of dilu-
“ tion, yet he experienced neither thirst,
“ head-ach, nor any other uneasy symptom
“ from the remedies he had used in the pre-
“ ceding night. The bane and the antidote

“ seemed mutually to cancel each other’s
 “ noxious qualities. This gentleman has
 “ frequently used green tea, even strongly
 “ infused, since this occurrence, though never
 “ in the excess above described; and as he
 “ derives refreshment only, without incon-
 “ venience, from the beverage, it is reasonable
 “ to conclude that no peculiarity or idiosyn-
 “ crasy in his constitution, occasioned the
 “ symptoms above detailed. A case ana-
 “ logous to this has been obligingly fur-
 “ nished me by Dr. Harvey, whose commu-
 “ nication I beg leave to subjoin.

“ Upwards of thirty years ago, Dr. —
 “ called on me in the middle of the day, in the
 “ summer season. I happened to answer the
 “ door myself, as all my domestics were out
 “ looking at some public spectacle. He
 “ appeared to me to be actuated by great
 “ terror; and upon my asking him what was
 “ the matter, he said, ‘ I have called upon
 “ ‘ you to request you would let me in, and
 “ ‘ allow me to die in your house.’ When he
 “ sat down I examined his pulse, which was
 “ scarcely discernible, and extremely irre-
 “ gular. He said he had called at the house
 “ of Dr. Hutcheson, and afterwards at Dr.
 “ Purcell’s, but finding neither at home, he
 “ came to mine, where he entreated I would

“ allow him to expire, which event he was
 “ sure was inevitable. I cannot say at this
 “ distance of time, what the circumstance
 “ was which made me ask him if he had
 “ been drinking strong green tea ; he imme-
 “ diately replied, that he had drunk a great
 “ deal of strong green tea, during the whole
 “ of the preceding night, as he sat up with
 “ an uncle of his who was to set off extremely
 “ early in a stage coach. I gave him a large
 “ glassful of cherry brandy, and put him
 “ to bed. He slept for a couple of hours, and
 “ awoke quite relieved from all his disagree-
 “ able feelings.”

From a comparison of these cases with
 those which I have above related, it is evi-
 dent that the noxious qualities which are
 generally admitted to belong to green tea
 belong also to the tea in common and do-
 mestic use. This opinion is confirmed by
 the history of the tea plant itself ; the most
 careful observations and inquiries going to
 establish the fact that the two kinds of tea
 are the produce of one and the same plant
 and not of two different plants as was erro-
 neously supposed by Linnæus ; and that the
 difference between the green and black teas
 is occasioned by the differences in the soil,
 and in the times of gathering, but above

all by the different methods of drying the leaves, the green teas being dried very carefully and with a moderate degree of heat, the black teas much less carefully and with so strong a heat as almost to roast them. That this difference in the mode of drying the leaves is sufficient to produce the remarkable difference ⁽¹⁰⁾ which exists between the sensible properties of the two kinds of tea will be readily understood by those who are in the habit of drying the leaves of plants for medical uses, and have observed that those leaves which are dried with great care and by a gentle heat, preserve their fine green colour and natural odour whilst those which are dried less carefully and by a stronger heat become of a brown colour like that of common tea, and lose much of their original fragrance. That there exists no essential difference between green and black teas is further established by the direct experiments of Mr. Brande at the Royal Institution ⁽¹¹⁾. Those experiments, instituted for the purpose of ascertaining whether there existed in green tea any principle not to be found in black, the presence of which in the former might account for the peculiar effect which it was supposed to produce on the

health, failed altogether to point out the existence of any principle in the one which did not exist in the other also. The two kinds of tea therefore being essentially the same should produce the same essential effects on the human frame, but these effects should be produced more quickly and by a smaller quantity of green tea, because in it the properties of the plant have been less impaired by the mode of preparation. Accordingly, on comparing the two cases which I have related with those related by Doctor Edward Percival, it appears that the full effect of the green tea was produced quickly and by a comparatively small quantity, whilst the black tea did not produce its full effect until a considerable quantity had been taken and its use continued for some time.

2. To the second peculiarity in the cases which I have related, I would particularly direct the attention of your Society. The gentlemen who are the subjects of those cases had rigorously abstained from strong liquors and were therefore almost precisely in the situation of those who substitute tea and coffee for the spirituous liquors which they have renounced at the instance of your So-

ciety. I think there is good reason to believe that tea and coffee are peculiarly injurious to such persons, because—

First, I have uniformly observed that it is exceedingly difficult to produce the intoxication of tea in persons who drink spirituous liquors after dinner. This result of observation accords with the physiological principle that a stronger stimulus either modifies, counteracts or entirely prevents the effect of a weaker; and therefore we find that,

Secondly, large doses of brandy are acknowledged by medical writers to be the best remedy for the deleterious effects of tea. The efficacy of brandy as an antidote to the poison of tea, is well exemplified in the cases recorded by Dr. Edward Percival.

Thirdly, in France and other parts of the continent where only weak wine is used at dinner, and where there is no drinking of spirituous liquors after dinner, tea is known to produce such powerful effects, that it is shunned as an article of diet and regarded as a medicine. Notwithstanding the readiness of the French to adopt English customs, the use of tea in France is still very rare. When coffee is used in the evening on the continent, it is in small quantities only, and often with the addition of a glass of brandy.

Fourthly, persons who abstain from spirituous liquors are the more likely to be injured by tea and coffee, because they drink these liquors in much greater quantities than spirit drinkers ever do ; the taste for the one kind of liquor and the one kind of intoxication being found by long experience seldom to co-exist in the same person with a taste for the other liquor and the other kind of intoxication. Hence it has been argued that the cause of sobriety is promoted by the use of tea and coffee. That it has derived a temporary aid from the introduction of these substances, cannot indeed be denied ; but if it be true, as I think I have shown it to be, that these substances are in the highest degree injurious to the health, no sooner shall this fact come to be generally known, than a reaction will take place, the substitutes will be thrown aside, and the use of spirituous liquors established on a firmer foundation than ever. Thus shall a deep wound have been inflicted upon the cause of sobriety, by the very persons who were most anxious to defend it, and with the very instrument which they used in its defence. I know of no means by which this result can be prevented, except that which I have had the honor to point out to your Society, the

adoption of a fixed rule of diet, founded on a principle which forbids not only the use of spirituous liquors, but also the substitution of any other intoxicating substance in their place.

I would not be understood as arguing from the cases above related, that the extreme effects which are therein described, are likely to follow the use of tea and coffee in moderate quantities, or that they are produced equally in all persons by a free indulgence in those liquors. Such a conclusion is not warranted by the cases, nor is it in conformity with what we know of the operation of other medicinal substances on the human frame. But I think I am warranted in concluding that substances capable of producing such powerfully deleterious effects cannot be used as articles of diet, even in moderate quantities, without more or less injury to the health. If it be said that they are used every day without such injury being apparent, I answer that an effect is not the less real because it is not apparent at first sight, and that it can be easily explained how a poisonous substance, as tea or opium, may be used as an article of diet without apparent injury to the health; such substance being always used sparingly at first, and

its quantity so gradually increased, that the constitution becomes accustomed to the poison, and in some measure accommodated to it. Thus it is that although the constitution is deeply, perhaps even vitally injured, yet such injury being produced gradually and not by the first dose of the poison, is either not perceived at all, or is attributed to some other cause, or is regarded as the operation of nature. If it happen besides that the poisonous substance is in very general use, its effects are traced with still greater difficulty, as they have not the advantage of contrast to render them conspicuous. Thus have I explained how tea which is known in France to be a powerful medicine, can be used in this country with little *apparent* injury as an article of diet, and how opium ⁽¹²⁾ may be in universal use as a luxury in the East, although known by us to be one of the most energetic of medicinal agents.

The conclusion which appears necessarily to follow from the cases above detailed, is abundantly confirmed by the testimony of the greater number of medical writers; by the general practice of physicians who interdict the use of tea and coffee to nervous, anxious, and hypochondriac patients; by the experience of those patients themselves.

and by numerous observations which I have made with great care, and anxiety to arrive at the truth. I will not occupy your Society with a detailed account of those observations, but shall confine myself to a statement of their general result, which is as follows.

The use of tea and coffee produces in all persons effects similar in kind to those detailed in the above related cases, but differing in degree according to the constitution of the individual, the quantity of active exercise which he uses, the intensity with which his mind is employed, the quantity of spirituous liquor which he drinks, and above all, according to the strength, the quantity, and the kind of the tea or coffee taken. All these circumstances vary so much in different individuals, and even in the same individual at different periods of his life, that the effects of tea and coffee on the health are subjected to an almost infinite variety of modifications, and cannot be traced to their true causes without great difficulty. Thus the effects of these substances are scarcely to be perceived in a person who takes them in small quantities, who drinks freely of spirituous liquors, whose mind is little employed, and who uses much active exercise. They are more sensible in another whose mode of life

is similar except that he takes no active exercise; such a person is nervous, sleeps badly, and has an impaired appetite. They are still more sensible in a third, who takes his tea or coffee stronger and in larger quantities, who uses no exercise, and drinks no spirituous liquors; the appetite and strength of such a person are much impaired, his sleep is greatly disturbed, and he is subject to palpitations and other kinds of irregular action of the heart. In a fourth, who not only abstains from spirituous liquors, but leads an anxious life, and takes no active exercise, the immoderate use of tea or coffee, besides destroying his sleep at night and enervating his whole bodily frame, so weakens his intellect and impairs his temper, that his life becomes a burthen to himself, and is scarcely to be desired even by his friends.

The peculiar state of mind and body which tea and coffee produce, and which I have called intoxication, follows the use of those substances as regularly as vinous intoxication follows the use of spirituous liquors. Like vinous intoxication it is modified by the habits, circumstances, and peculiar constitutions of individuals, some persons requiring a larger, some a smaller dose to produce a given effect. Like vinous

intoxication, it may be indulged in for a series of years without apparent ill consequences, but sooner or later undermines the health and renders life miserable. Like vinous intoxication it has two stages, the first of which is as pleasing as the second is painful and distressing. The first stage of this intoxication is characterised by an agreeable sensation in the stomach, moderate perspiration, quickened pulse, and increased vivacity of mind and body ; the second stage by a very irregular pulse, sometimes rapid, sometimes slow and intermitting ; palpitations and pain of the heart ; a vivacity of thought and action which is quite uncontrollable by the will ; a painful sensibility to impressions of all kinds ; twitchings of the muscles ; disturbed sleep ; frightful startings, especially in the evening and in the early hours of night ; irregular, sometimes cold perspiration ; impaired appetite, and defective circulation in the extremities of the body ⁽¹³⁾. Thus does the immoderate use of tea and coffee produce a state of disease which bears a close resemblance to the *delirium tremens* of whiskey drinkers ⁽¹⁴⁾, and which is almost identical with the diseased state induced by excessive indulgence in opium ⁽¹⁵⁾. And thus does the immoderate tea-drinker, like the

drunkard and the opium-eater depend for his short-lived enjoyments upon a drug which poisons the rest of his existence ⁽¹⁶⁾.

If it be said: 'We grant you that the unrestrained use of tea and coffee is injurious, but you will not therefore proscribe the use of these substances altogether; you will at least allow "a cup of well made coffee, the temperate man's cordial, immediately after dinner" ⁽¹⁷⁾, and you will not forbid a cup or two of tea in the course of the evening,' I answer—

First, that although it be true that in many states of the stomach a cup of well made coffee is a cordial, yet it is by no means certain that it is a cordial when taken immediately after dinner. I am not acquainted with any argument which goes to support this very common opinion except that which is taken from the alleged practice of the French. It is alleged that the French, in place of spirituous liquors, use coffee immediately after dinner as a stimulus to digestion. But according to my observation this use of coffee is not common in France; when it is introduced in that country immediately after dinner, it is rather as a matter of form and as something which is thought necessary to complete a polite entertainment. The

opinion that coffee taken immediately after dinner promotes digestion seems further to be contradicted by the use which is made of it by the Galla, a nation inhabiting the interior of Africa. According to Mr. Bruce ⁽¹⁸⁾ the Galla use coffee in the passage of the sandy deserts for the double purpose of keeping up a state of excitement, and preventing the necessity of carrying provisions with them. They find that a ball of this substance, made up with butter and as large as a billiard-ball, is sufficient to keep them in spirits, and to prevent the stomach from demanding food, during an entire day's journey.

But secondly, admitting that a cup of well made coffee is a cordial (which it certainly is under some circumstances, although not immediately after dinner,) yet, on the very principle of your Society and of the author of the *Letters on the Use of Wine and Spirits*, a cordial ought not to be used habitually. A healthy man does not require an habitual cordial, and even if he did, such could only be procured by a constant increase of the dose. This is the case with tea and coffee as it is with wine and spirits. Both belong to that class of substances which produce nervous excitement of mind and body, and

their action is subject to the laws which govern the whole class. One of the most invariable of these laws is that all substances belonging to the class cease by use to produce their effect unless taken in increased quantity. Hence persons who are fond of the excitement produced by such substances are not and cannot long be satisfied with a moderate quantity ; and thus is intemperance in tea and coffee induced in the very same way and by the very same cause as intemperance in spirituous drink.

By the use of these luxuries the community is injured not only in the mental health and bodily vigour of its members, but in its revenues also. The quantity of tea alone imported into Great Britain within the last year, amounts, as it appears by the books of the East India Company, to thirty millions of pounds weight. The average price of this tea to the consumer (exclusively of duty) may be estimated at three shillings per pound. Here then is an outlay by the consumers of tea of four millions and a half of money annually ; an outlay for which there is scarcely, if any, return in the way of employment to the poor ; the whole of this sum with the exception of the expense of carriage, and the profits of the retailers

and of the Company, going into the coffers of a foreign nation. If we double this sum (the duty being nearly equal to the value of the tea) we shall have the gross amount paid by the consumers of tea in these countries for that luxury, viz.:—nine millions annually; without calculating the tea which is introduced by smuggling and that which is legally imported by the officers of the East India Company, both which quantities are considerable.

If we compare the quantity of tea imported by the East India Company during the last twelvemonths with the quantities imported during an equal space of time at different periods since its first introduction, we shall see how rapidly the consumption of this article has increased. In the year 1665 it was sold at sixty shillings per pound, and must therefore have been used rarely and in small quantities, as a medicine, or cordial, and not as an article of diet.

		lbs. imported.
From 1717 to 1726		700000 annually
— 1732 to 1742		1200000 ditto
1755	.. near	4000000
1766		6000000
1785		12000000
1794		16000000
1816		20000000
1828		30000000

From this table it appears that in the course of one hundred years the consumption of tea has increased forty-fold in these countries.

If the influence of tea on the human health be such as I have described, we should expect to find that there had occurred during the above-mentioned period of one hundred years an increase of nervous diseases bearing some proportion to the increased use of tea. Let us inquire whether history informs us of such increase. In the ancient medical writers we find such scattered notices of these diseases as show that they had existence in all ages, especially in highly civilised and luxurious nations. Those forms of them especially which are still known by the names of Hypochondriasis, Hysteria, and Melancholia, were well known and accurately described by the ancient physicians. But it was not until the commencement of the eighteenth century that these diseases became so common in England as to excite any considerable share of the attention either of physicians or of the public. About that period they became so frequent, and assumed such an infinite variety of forms, that a name to designate the entire class became necessary, and they were accordingly denominated with sufficient propriety, Nervous Diseases.

In 1733 Dr. George Cheyne published his celebrated treatise on these diseases, entitled *The English Malady, or a Treatise on Nervous Disorders of all kinds*. The preface of this work commences with the following words—"The title I have chosen for this
 "treatise is a reproach universally thrown
 "upon this island by foreigners and all our
 "neighbours on the Continent, by whom
 "Nervous Distempers, Spleen, Vapours, and
 "Lowness of Spirits, are in derision called the
 "English Malady, and I wish there were not
 "good grounds for this reflection." The causes to which this author attributed the enormous increase of nervous disorders in his own time were—"1. *Luxury*—2. *In-*
 "active sedentary life—3. *Living in large*
 "*and populous cities.*"

From the testimony of this author compared with the table above given, it is easy to deduce a remarkable confirmation of the opinion which ascribes to tea a powerful influence in the production of nervous diseases. It appears from the table that in the beginning of the eighteenth century the consumption of tea amounted to several hundred thousand pounds weight annually, and it is well known that the use of tea was at that period almost wholly confined to the higher

classes of society. We are informed by Dr. George Cheyne that at that very period there was so remarkable an increase of nervous diseases in England, as to excite the attention not only of physicians and of the public, but even of foreign nations; and that this increase was to be observed principally among the luxurious, the sedentary, and those inhabiting large cities, the very persons who used tea and in whom it was the more likely to produce its peculiar effects, aided as it was in them by the co-operating influence of luxury and inactivity.

In 1760, Dr. Whytt applied his acute mind assisted by the improved physiology of the day to the investigation of these diseases. He mentions his suspicion that the increased use of tea was one cause of their increased frequency, and describes its injurious effects upon his own health.

Whilst the physicians of the eighteenth century were engaged in the investigation of the nature and origin of these diseases, its satirists and poets were as busily employed in portraying their effects upon public manners. They personified nervous diseases under the name of Spleen, and even intimated the influence which tea had in producing them by representing Spleen

as an enchantress who transformed men into tea-pots.

Unnumbered throngs on every side are seen
Of bodies changed to various forms by Spleen :
Here living tea-pots stand; one arm held out,
The other bent; the handle this, and that the spout.

RAPE OF THE LOCK.

Persons of high rank and fortune being for the reasons already mentioned preeminently afflicted with nervous diseases, these diseases came to be considered fashionable, and were on that account assumed by many who were not entitled to such distinction either by their use of tea or their other luxurious habits. This second cause contributed, perhaps even more than the first, to extend the empire of Spleen, which at last became of such magnitude that about the close of the eighteenth century a great part of the inhabitants of Great Britain, especially those residing in cities, were enrolled among her subjects, and owed her more or less allegiance.

In the mean time, one of those bloodless revolutions which sometimes occur in empires was gradually taking place in the kingdom of Spleen. Black tea, which was despised at first, and whose qualities were little known, began at length to be used on account of its cheapness; and being found

to produce effects similar to those of green tea, and having besides in the opinion of many a more agreeable flavour, it was not long before its use became so general as almost wholly to supersede that of the other kind of tea. Two remarkable effects were produced by this apparently trifling cause. First, the health of the upper classes was much improved by the substitution of black for green tea, a weaker poison for a stronger : and secondly, the diseases which had hitherto been regarded as the exclusive privilege of the upper classes came to be found commonly in the middle and lower ranks, and having thus ceased to be a mark of distinction, were no longer assumed or encouraged, and gradually became less frequent. Other causes contributed still further to diminish their frequency. First, the recently introduced custom of living less in cities, and more in the country and in villas near town ; secondly, the improved system of education in which that importance was given to active exercises in the open air, which had formerly been given to the performance of sedentary tasks ; and lastly, the still further diminution of the strength of the poison, by the general substitution of a very inferior kind of tea containing

scarcely any of the odoriferous parts, for the finer and more odoriferous kinds of black tea which had been first substituted for green.

Since the commencement of the present century these causes have been operating to diminish the frequency of nervous diseases ; and now that such diminution has become sensible, and that these diseases seem at last to be on the decline, will your Society proceed to give them new life and vigour by encouraging⁽¹⁹⁾ the use of those very substances from which more than from any other single cause these diseases spring ? Your Society will not do so ; but will rather hasten to correct its error, to abjure the narrow policy which would substitute one evil for another, and to establish itself on the firm basis of the physiological principle that substances which exercise so powerful an influence on the nervous system as to produce intoxication, whether it be the intoxication of spirituous liquors, or of tea and coffee, or of opium, or of tobacco, cannot be used habitually without injuring the health of the body and impairing the faculties of the mind.

If it be said by some one who is well inclined towards the commutation of evils

contemplated by your Society, “ Your principle is indeed true, but it is too stern: “ you have taken from us the last of the “ liquors for which we care without leaving “ us a substitute.” I answer my principle is not stern: as will be found by any one who will for a short time act upon it. It is the principle of the *true* Epicurean who would exchange the feverishness of a diseased excitement for the sweet tranquillity of health: and if I have taken from you all intoxicating substances, as indeed I confess I have, I have left you an abundance and variety of pleasant and refreshing liquors, liquors with which you have been hitherto either not at all or very imperfectly acquainted. In place of tea I have given you cocoa, a drink much neglected in this country, but which when well made is a fragrant, aromatic liquor, at once nutritive and grateful to the stomach, and one to which no deleterious property has ever been attributed, for it would be idle to speak of the vulgar prejudice that it injures the sight. If there be any who from a distaste to cocoa cannot use it in place of tea, to them I have given, in lieu of the repast of which I have deprived them, an early supper, a wholesome cheerful meal which has been

well nigh forgotten since the introduction of late dinners and tea. By the revival of this social repast we return in some measure to the usage of the good old times when nervous diseases and tea were almost equally unknown. To those members of your Society who towards bedtime feel thirsty rather than hungry, and who have been deprived by their own principle of the wine or spirits which they were in the habit of taking just before going to bed, I have given free choice of a variety of drinks not indeed intoxicating, but certainly agreeable, refreshing and wholesome. Amidst such variety the most delicate taste can hardly be at loss : for myself I prefer the drink which has been mentioned last in order in the fifth rule—warm water through which a portion of currant jelly or jam has been diffused. This drink I and several members of my family have been in the habit of using for many years ; to a palate accustomed to the fiery stimulus of port or ardent spirits, it at first appears insipid, but after a little while it is found agreeable, and is even preferred to any other drink : it combines sweetness with a slight bitter and a very mild acid, possesses no sensible medical property except that of promoting gentle perspiration (which

effect is entirely owing to the water), is to be had at a small expense and is always ready at hand ; and besides all these advantages, the fruit of which it is made is the produce of a native plant, the currant tree, which might become, if only this drink were in general use, the *vine* of Ireland ; by the cultivation ⁽²⁰⁾ of which in our fields and on our hills the face of the country would be rendered more beautiful, and a new source of employment afforded to the poor.

On the sixth and seventh rules it is unnecessary to make any observations. They are founded on the same general principle as the former, and are necessary to render the plan complete.

I am, Gentlemen,

Your obedient servant,

And sincere friend and well-wisher,

JAMES HENRY.

York street, Dublin,

December 1829.

NOTES.

Note 1, page 4.

See *An Address to the Temperate*, by the Rev. John Edgar, Professor of Divinity in the Belfast Institution, Dublin, 1829.

Note 2, page 4.

See *A Letter on the Effects of Wine and Spirits as productive of Disease*, by a Physician, Dublin, 1829.

See also *A Second Letter on the Effects of Wine and Spirits*, by a Physician, Dublin, 1829.

Note 3, page 7.

“Nervous people generally entertain a notion that when strength is exhausted by want of sleep, it may best be recruited by wine; but this is a strong delusion, as I was first led to suspect by the result of a long journey which I once made in the mail-coach, while in a state of great anxiety. I travelled nearly seven hundred miles almost without stopping, having been five nights out of six in the coach, during which time I could not have slept half as much as usual, and the sleep I obtained was unsound and interrupted. During the whole time, I lived chiefly on bread and tea, with a small portion of animal food once a day. I drank no malt liquor, wine or spirits, &c.”
—*Letter on the Effects of Wine and Spirits, by a Physician.*
Second Ed. p. 7. and 8.

And again, page 8.—“If any one have to travel by night or sit up to watch a sick friend, let no other preparation be made than what is necessary to secure the freedom

This shell has been long used in the country, and will
 give benefit, by its use. In the form of the shell, it is a
 shell, and is found in the country, or rather in
 France. I prefer shell, more or less, which is the
 shell of the bone, is therefore which is made of the bone
 itself, because I think the latter contains a little less matter
 with, which although separable in the case of medicine
 is not much used by us. By getting a col-
 lection quantity of the shell in the water, some can be
 made as strong as the shell itself, and it is as strong as
 the water, which is supposed to be from the
 water, or from the appearance of the shell. The former is
 improved by the addition of one or two of the bones, or with
 half part of the shell. Some should not be taken with
 any of these, but the former.

See 1, page 11.

See the collection of bones in a case 1 and 2.

See 1, page 11.

I speak only of the composition of the water, the
 being the only one of them which has any direction
 among reasonable men. Some reasonable men observe
 the use of them from a mistaken opinion that it makes
 the stomach in the process of digestion, or rather which
 seems to have arisen from the shell which sometimes
 liquor is known to give it an improved stomach. But
 the whole difference that exists between allowing an im-
 proved stomach and allowing a healthy one is the dis-
 charge of it natural, and the one is not sufficiently attended
 to. It should be recollected that appearance of the sto-
 mach is an entirely new product by nature in the
 quantity or quality of the food, or both, and is the
 warning which nature gives that such errors may be

avoided in future. Spirituous liquors relieve this oppression, and so enable men to continue in their excesses with a temporary impunity, but it by no means follows that the stomach requires or is benefited by such assistance in the discharge of its natural duty: the contrary is proved by experience.

Note 7, page 11.

The alleged preservative power of spectacles may be urged as an objection to the parallel; but spectacles do not possess this power which has been attributed to them by those only who do not wish to acknowledge that their sight is defective.

Note 8, page 15.

The common pipe-water of this city requires no further care than that which I have mentioned. Boiling entirely deprives water of its flavour, and serves no good purpose when the water is to be used cold. Filtration greatly improves rain water, or water which has been taken directly from a river or canal, or which has not been kept with sufficient care, but is quite unnecessary for water on which the proper care has been bestowed in the keeping.

Note 9, page 22.

See Dublin Hospital Reports, vol. 1.

Note 10, page 27.

It is hardly necessary to say that there is not the slightest foundation for the opinion which some have held that the colour of green tea is owing to the presence of copper or to its being dried on copper pans.

Note 11, page 27.

See the *Quarterly Journal of Science, Literature, and the Arts*, for January 1822.

Note 12, page 32.

“My residence in Turkey having given me an opportunity of informing myself how far the Turks are gone into the use of opium, and what are the common effects of it, I humbly presume to offer an account of my observations to the Society. I made inquiry for the most famous opium eater in the country about Smyrna, and had recommended to me one Mustapha Shatoor, an inhabitant of Sediqui, a village six miles from that city, by trade a coffee man, and forty-five years old when I discoursed with him: going into the subject for which I had called him, he told me his constant eating was three drachms a day of crude opium, one half of which was his dose in the morning and the other half in the afternoon, but that he could safely take double this quantity. Resolving therefore to be an eye-witness of what he could do, I provided the best opium I could get, and weighed it nicely into drachms; I desired him to come to me before he had taken any part of his dose, and that I would entertain him the next morning; he took the invitation thankfully, and came to me the next day at nine in the morning, but excused his having taken half a drachm before, because he wanted strength to rise out of his bed without it. I laid before him my opium, made up in pills, each weighing a drachm, and desired him to eat what he pleased; he took one drachm and a half, making it up in three pills, and chewing it with a little water. He commended the opium, but was not willing to eat more at that time, and I would not press him for fear of accidents; he staid with me about half an hour after he had eaten the opium; the visible effects it had upon him were to make

“ his eyes sparkle, and to give a new air of life and bright-
 “ ness to his face; he told me that he was extremely refreshed,
 “ and made very cheerful by my entertainment, and that it
 “ gave him his *keph* as the Turks express it. He went from
 “ me to his coffee-house, and being desirous to observe him
 “ that day, I found him in half an hour labouring heartily at
 “ cleaving wood to burn; I desired his company again, when
 “ he was prepared for a second dose; he came to me at three
 “ in the afternoon, and took the same quantity as in the morn-
 “ ing, and appeared after it with the same symptoms. He
 “ told me he would be again ready for the same quantity at
 “ the same distance of time, but I pushed the experiment no
 “ farther. He says it has always the same effects, giving him
 “ vigour and spirit, and is now become as necessary to him as
 “ any other part of his sustenance: * * * * *
 “ that it never affects him with sleep or drowsiness, but
 “ rather hinders his reposing when he happens to take too
 “ much of it; that he entered upon this practice twenty-five
 “ years ago, beginning with the bigness of a grain, and so
 “ training up nature gradually to larger quantities; that the
 “ want of it and the desire of taking more grows greatly upon
 “ him; that his common expense for living is three parahs a
 “ day in opium, one in tobacco, two in coffee, and two in
 “ bread. A parah is about one penny farthing in our money.
 “ The alteration and impairment which this custom has pro-
 “ duced in him are weakness, his legs being small, his gums
 “ eaten away, so that the teeth stand bare to the roots, his
 “ complexion very yellow, and appearing older by twenty
 “ years than he really is. I asked him if he knew any body
 “ who could take opium in larger quantities; his answer
 “ was, he believed there was none in the country that could
 “ outdo him, but that he was informed of some in Arabia
 “ and about Damascus, where this custom of eating opium
 “ obtained more universally.

“ Opium is commonly taken by the messengers in
 “ Turkie, who are employed in making quick despatches ;
 “ 'tis generally part of their provision ; they take it when
 “ they find themselves tired, and it gives them strength and
 “ spirit to proceed. * * *

“ The Turks use opium made up with something that ren-
 “ ders it palatable at their feast, called Biram, to make them
 “ cheerful, which may be one reason of its prevailing so much,
 “ for finding it entertains them with pleasing fancies, they are
 “ tempted to continue it, and so the use of it becomes neces-
 “ sary, and grows upon them.” *Dr. Edward Smyth on the*
use of Opium among the Turks. Philos. Trans. 1696.

Note 13, page 35.

Usu liberiore theæ vel coffeæ et alvum astringi, et vesi-
 cam impatientem fieri, et apud sexum sequiorem fluorem
 album promoveri plurimis observationibus constat.

Note 14, page 35.

See *A Statement of certain Effects to be apprehended*
from Temperance Societies, by a Physician, Dublin, 1829,
Appendix, page xxiv.

Note 15, page 35.

See *Confessions of an English Opium Eater.*

Note 16, page 36.

The effect of tea immediately applied to the muscle or
 nerve of a living animal has not been satisfactorily ascer-
 tained. The experiments of Dr. Thomas Smith and those
 of Dr. Lettsom on this subject, are highly interesting
 and were made with great care, but require con-
 firmation. I had proceeded some way with similar expe-
 riments, which as far as they went corroborated the

deductions of those gentlemen, but was obliged to discontinue them that this Letter might appear in sufficient time for the purpose for which it is intended. Dr. Smith's experiments went to show that the immediate application of an infusion of green tea to a muscle (or to the nerve supplying it) produced upon the muscle the same effect which was produced on it by the application of other narcotic substances, such as henbane, tobacco, cicuta, &c. By all these substances he found that the contractile power of a muscle in the living animal was first diminished and then destroyed.—See *Tentamen Physiologicum Inaugurale de Actione Musculari, Auctore Thom. Smith, Edinb. 1767.*

Dr. Lettsom succeeded in separating from tea the principle which possessed the narcotic power. I shall give you his experiments in his own words.

“I distilled half a pound of the best and most fragrant
 “green tea with simple water, and drew off an ounce of very
 “odorous and pellucid water free from oil, and which on
 “trial showed no signs of astringency. That part of the
 “liquor which remained after distillation was evaporated
 “to the consistence of an extract, it was slightly odorous,
 “but had a very bitter, styptic or astringent taste. The
 “quantity of the extract thus procured weighed about five
 “ounces and a half. Into the cavity of the abdomen and
 “cellular membrane of a frog, about three drachms of
 “the distilled odorous water were injected. In twenty
 “minutes one hind leg of the frog appeared much affected,
 “and a general loss of motion and sensibility succeeded;
 “the affection of the limb continued for four hours, and
 “the universal torpidity remained above nine hours;
 “after this the animal gradually recovered its former
 “vigour. In like manner some of the liquor remaining

“after the distillation of the green tea was injected, but
 “this was not productive of any sensible effect.

“To the ischiatic nerves laid bare, and to the cavity of
 “the abdomen of a frog, I applied some of the distilled odo-
 “rous water. In the space of half an hour, the hindermost
 “extremities became altogether paralytic and insensible;
 “and in about an hour afterwards the frog died.

“In like manner, I applied the liquor remaining after
 “distillation to another frog, but no sedative or paralytic
 “effect was observable.

“The extract dissolved in water, and applied to the same
 “parts under like circumstances, produced no sensible
 “effect.

“From these experiments the sedative and relaxing effects
 “of tea appear greatly to depend upon an odorous fra-
 “grant principle, which abounds most in green tea, parti-
 “cularly the highly-flavoured. Note—Two drachms of
 “this odorous water were given to a delicate person; he
 “was soon after affected with a nausea, sickness, general
 “lowness, and debility, which continued for some hours,
 “which he observes usually succeeds when he drinks super-
 “fine green tea. Smelling forcibly at the same has occa-
 “sioned similar effects upon some delicate people.”—See
Lettsom's Natural History of the Tea Tree, Dublin, 1772.

This discovery of Dr. Lettsom, if it be confirmed by
 future experiments, serves to explain several facts which
 are well known in the history of tea.

It explains, first, why its use before it has acquired a
 certain age produces delirium and other alarming symp-
 toms, so that it is never used in China, unless by fraud or
 accident, until it is a year old.

Secondly, it explains why a larger quantity of tea is ne-
 cessary for the production of such effects in this country,
 the tea that is used here being always several years old,

both on account of the long voyage from China, and the large stock of the East India Company.

Thirdly, it explains why the peculiar effects of the plant are produced more quickly, and by smaller quantities of the green tea than of the black; and why those effects are produced more readily by the finer and more odoriferous kinds of green tea than by those which are less fine and odoriferous, and also why the effects of black tea are greater in proportion as it more nearly approaches the green in colour and smell.

Fourthly, it explains why tea sometimes produces no narcotic effects whatever, the narcotic principle having been either entirely dissipated by the roasting, as perhaps happens to some of the inferior Bohea teas, or having been lost during the preparation of the drink, either by boiling or by long infusing, especially when the tea-pot is placed upon or very near the fire. Thus we are enabled to understand how some persons who cannot take tea prepared in the ordinary way without great and immediate injury to their health, can drink it even in large quantities without any sensible effect when it has been infused over night and exposed to the air, or when it has been boiled for a few minutes.

Note 17, page 36.

See *A Letter on the Effects of Wine and Spirits, by a Physician*, Second Edit. p. 12.

Note 18, page 37.

See *Bruce's Travels*, vol. 2.

It is worthy of observation that an exactly similar use is made of opium by the Turkish messengers, (see Note 12, page 55,) and of tea by us, (see page 22, and Note 3 page 49.) Thus we are furnished with a new and striking analogy between the three substances.

Note 19, page 45.

See the former part of this letter, page 8. Since that part of the letter was written, I have been informed that a *coffee-shop*, where coffee is sold at so much a pint to the poor, has been established by the Temperance Society in New Ross, in the County of Wexford.

Note 20, page 48.

The currant tree thrives better and produces finer fruit in this climate than it can be made to do by any care in the vine countries.

Bind in

See the former part of this letter, page 3. Since that part of the letter was written, I have been informed that a coffee-house, where coffee is sold at so much a pint to the poor, has been established by the Temperance Society in New River, in the County of Wexford.

Nov 20, page 48.

The climate here thrives better and produces finer fruit in this climate than it can be made to do by any man in the time of our lives.

Books are merely records
of facts, they should not,
& do not, teach.

J.H.D.

1968

