

REPRINTS AND REFLECTIONS

Preservation of health

Extracted from W Thompson. *Practical Directions for the Speedy and Economical Establishment of Communities, on the Principles of Mutual Co-operation, United Possessions and Equality of Exertions and of the Means of Enjoyments*. London: Strain and Wilson, 1830.

Health comprehends not merely the negative blessings of freedom from disease and pain of all sorts, not merely the physical pleasure, chiefly felt in infancy and youth, of the free and equal circulation of all the fluids, but also the preservation of the frame through the longest period of life, in such a state of equal and gentle excitement as to be capable of all those exertions and enjoyments, physical, mental, or social, not accompanied with nor followed by preponderant evil, which the wisest arrangement of circumstances can present to every individual.

The most prominent of the causes, perhaps, that derange health, that engender and perpetuate diseases or induce permanent predispositions to contract them, and thus shorten by one half what might be the average duration of human life, while they cloud with pain and apprehensions the other half, are the following.

PHYSICAL CAUSES; or	Injurious nourishment, whether from insufficiency, from over-repletion or over-excitement, of food, or from improper articles of food.
Those which operate on the system by <i>perceptible</i> impulse.	Exposure to wet, cold, deleterious airs (or gasses) putrid miasmata, malaria, and other injurious physical agencies.
	Want of cleanliness of person and dwelling, of walks and places of resort.
	Want of the physical (or pecuniary) means of re-establishing health or repairing accidents.
MENTAL CAUSES; or	The anxieties, disappointments, and vexations of force-directed or competitive exertions, first to live, next to get beyond others.
Those which operate, through the brain, on the system by impulse <i>imperceptible</i> to the senses.	The ungratified vehemence and misdirections or excesses of the passions.
	The listlessness and disgust arising from over-repletion and want of active employment.

Which of the above circumstances, physical or mental, influencing health and long life, would not be within the control of a co-operative community? Is there scarcely one of them, or much more than one, which are now within the control of almost any one, rich or poor, of those acting on the system of competitive exertion?

Of physical causes, we may first observe.

The most important of these, from the unremitting exertions necessary to procure them, as well as from their becoming, by the process of digestion, the component parts of our frame, are the various articles we use for *food*. These are now indiscriminately used without any regard to selection, except with reference to the immediate pleasures of taste and the pecuniary means of purchase.

The great majority of mankind, from the pressure of excessive poverty, even were ignorance and irrational example out of the question, are under the necessity of consuming *whatever they can get* with the means at their command, to support their existence from day to day. Though death, by inflammation of some sort or other, within a year or a month, were the inevitable consequence of using or persevering in the use of a particular species of food, the poor must use it or not live out the day or the week, when they are without the means of procuring better food. Neither the species nor the quality of the food, farther than its immediate effect on the senses and feelings of hunger, are or can be, under their present circumstances, considered by the poor. To want of knowledge of the effects remote as well as immediate, of the different species of food, of its regulation both as to *quantity* and quality, which they share with the rich, they are by poverty precluded from any choice of food whatever but what their scanty means enable them to purchase. Can we wonder that men so situated and so compelled to irrational conduct in such a main item of their well-being as the regulation of what is to form their own physical frame, should be ever liable to tormenting disease and abridged of half the natural or attainable duration of their lives?

The effect, again, of insufficient and innutritive food on the stomach and physical powers, joined to overexertion with depressing accompaniments and the want of the comforts and the neatnesses of life as well as of the gentle mental excitements that knowledge and social enjoyments afford, irresistibly drive the ignorant, underfed and over-worked, to the temporary exhilaration of *intoxicating liquors* relieving for a moment the corroding listlessness of existence, exciting the vessels of nutrition, circulation, and thought (those of the brain) into a temporary glow of action, and purchasing a sad and short oblivion of wretchedness at the expense of predisposition to inflammatory disease and premature death.

Did competition permit the existence of a class of men who selected their food from rational motives alone, namely its ascertained tendency to preserve the system in uninterrupted health for the longest life, *it being known experimentally that that same species of food would also produce throughout life the greatest quantity and intensity of the pleasures of taste and appetite*, we would then be able by simply contrasting the rational and the irrational, those who selected their food from those who

consumed like oxen or horses to gratify immediate taste and appetite alone without foresight or regard to consequences, to demonstrate the penalty paid in disease and premature death, from neglecting the most useful articles of food.

Unfortunately competition does not permit to exist a class of any such rational individuals with respect to the selection of their food; or if by chance there be a few such individuals, they are mostly deprived of the means, pecuniary and otherwise, of persevering in any well-ascertained judicious selection. To the rich, who consume without producing, the pleasures of appetite, of the gratification of hunger or thirst, are not known: such feelings are scarcely ever permitted to be excited, being on the one hand esteemed *vulgar*, and on the other constantly overpowered by repletion and stimulation. To the rich, the gratification of the immediate pleasures of taste are the leading object proposed in the selection of food, these pleasures again mostly depending on acquired feelings, the result of locality, fashion, and accident. One of the axioms of the competitive system of enjoyment, as well as of that of the preceding system extracting labor by force from slaves is, that *what gives pleasure, what is useful to all, must be contemptible*: hence rare and dear articles of food as of every thing else, are exclusively used by the rich, the use of common and cheap articles indicating poverty, with which every thing wretched and hateful is associated: the dainties of one place prized there by the rich because they are scarce, are despised by the rich of another place in which they are in greater perfection, simply because they are abundant and can be enjoyed by all. No article is valued, not to say for its permanent good qualities in the use, not even for its immediate pleasurable qualities in the use, until these latter get also the passport of variety and distinction: the pleasures of *antipathy* must be added to even the immediate pleasures of taste or they lose their value in the scale of competition. Not only does competition demand from the rich the *display* of the immediate enjoyment of the articles of food as of all other articles, but of such more particularly as others cannot enjoy. Now these two qualities, of immediate pleasure (in the existing state, more or less deranged, of the physical system of almost every individual) and of rarity, are, neither of them, necessarily connected with the preservation of permanent health and long life, but mostly opposed to them. What the poor lose in health and long life from the effects of mere want, the rich lose from the folly of intemperance and of display; neither of them ever thinking of studying the ultimate effects of the species of food they consume on their frame during the whole attainable period of its existence in a state of happiness.

Competition calls into being a set of men who necessarily trade in the curing of wounds and diseases. The more wounds and diseases, if accompanied with the ability of paying for the cure, the better for this trade, as the greater the demand for cottons and silks the better for the manufacturers of these articles. Now the healthier the food, the fewer the diseases. Hence the whole interest and influence of the curers of wounds and diseases, are opposed to the banishment of disease by the selection, with that object steadily in view, of all articles of food. Disease must not only be cured, but must be warded off, by medicines, by incendiary drugs, instead of being prevented and frequently cured by the mere regulation of food, by calming and anti-irritating applications and other appropriate non-medical means. The medical class have been also exposed with all the

rest of the rich in their early education and amongst their youthful and full-grown associates, to admire and hanker after the pleasures of intemperance, mere distinction, and all species of the pleasures (falsely so called) of antipathy. It is moreover no part of their profession, as it has been no part of their study, to preserve health to the healthy: it is on the contrary their vulgar interest, as forming one of the trades of competition, that the healthy should become diseased.

With such powerful causes opposed to the preservation of health constantly operating, particularly as regards the selection of food, how can we wonder that society is one great lazarus-house of disease and premature death, from the want of the poor, the intemperance of the rich, and the utter ignorance of the art of preserving health, and short-sighted mistaken competitive interests of all? In a co-operative community, want will be banished, abundance of the most healthy food, affording a regular and gentle gratification of appetite and taste, will supersede intemperance, which moreover must there be paid for by the trouble of production, and will therefore be speedily banished; while the value of the different species of food will come to be estimated solely by their tendency to keep up uninterrupted health through the longest life. The study of the science and art of preserving uninterrupted health and long life, will be rendered not only the interest of the medical class, but also one of the most engaging of the branches of education and of attractive pursuit to all.

If a co-operative community have an absolute command of the articles of food by the faculty of producing them, they have scarcely less power over the second mentioned physical causes deranging health, namely exposure to wet, cold, deleterious air, putrid miasmata, and other injurious physical agencies. Injurious exposure to wet and cold, now the ordinary and inevitable lot of millions, to obtain the bare and most wretched means of existence, and which cut off prematurely the lives of almost all those who work in the open air, would never be experienced by the members of co-operative communities, whose arrangements would provide suitable employments for all at all seasons. There is scarcely a trade or employment as now practised, which has not an injurious physical effect on health, whether from the length of daily time employed, or from the utter disregard to the removal of agents injurious to health arising out of the occupation. True it unfortunately is that human research has yet done little to bring under control, or even to discover the mode of operation of, many of these agents: but as far as knowledge extends, co-operative arrangements can with facility make that knowledge practically useful for all; while under existing arrangements, so discordant are the interests of all, so limited individual power to remove from its vicinity any aerial substance injurious to health, or to create in extreme cases an atmosphere of useful agents, that the poor, the great majority, are altogether at the mercy of wet, cold, and sudden alternations of temperature, deleterious airs, putrid effluvia, and all the invisible agents injurious to health; while the rich, even those few amongst them that study the subject, have but very few of such agents, and those very imperfectly, under their control. The effects of the effluvia of a neighbouring lane or stagnant pool not under their proprietorship, may baffle all the efforts of their wealth and of the skill of their advisers. It is evident that where all interests are united, as in a co-operative community, whatever the

knowledge and strength and command of extent of land and water of two thousand persons or any other associated number can do, may be carried into effect to banish these aerial agents of disease and occasionally to substitute for them other substances or influences useful to health.

So with respect to the next mentioned set of physical agents injurious to health, uncleanness of person, dwelling, walks, and places of resort; to which may be added general confinement, compression of the viscera or limbs, at particular occupations, &c; a co-operative community has them entirely at command. Uncleanness operates in two ways: first, by stopping the pores of the skin and preventing perspiration, the blood is driven in undue quantity into the interior of the body where it irritates the viscera, particularly the stomach and intestinal canal, the original focus of nine tenths of our diseases, producing acute or chronic inflammations, or else the skin itself becomes irritated and diseased by the condensation of the perspirable matter, and cutaneous eruptions of different inflammatory species appear: next, by generating putrid effluvia which load the surrounding air with matter injurious to health liable to be swallowed by the saliva so as to irritate the stomach and intestines or to be sucked in by the lungs to irritate their structure or the surrounding parts. Under competitive or arbitrary arrangements every individual is liable to be incommoded by the neglect of cleanliness of his neighbour; those few gross cases excepted which are sufficiently palpable for the interference of law, and where the aggrieved party has the pecuniary means of defraying the charges of that expensive and, to all but the rich, utterly inefficient instrument of redress. In a town, every twenty or one hundred feet afford a hostile or as termed an independent proprietor; and the effect of the best domestic arrangements are limited to the few that inhabit one house, in which even frequently the health of one class or one person is purchased at the expense of the slow-consuming, unvaried, bought, and reluctant watching and privations of others. In a co-operative community one system of washing, brushing, ventilation, heating, of removing, intercepting, absorbing, or neutralizing deleterious gasses, would pervade the whole establishment and extend equally and efficaciously to all. No cellar, no garret, nor dungeon-bred contagions could there be generated and diffuse themselves. Abundance of wholesome food, and neat clothing to all (limited in the use, by prudence acquired from knowledge) will necessarily lead in a community to cleanliness of person, and cleanliness of person will necessarily lead to a desire to avoid the contact, or aspect, or influence of things unclean. *Now*, the cleanliness of the rich, even as to person (and they can command little more) is of very little use to them surrounded as they every where are with the uncleanness of the poor, and neglecting the regulation of food and of aerial physical agents. These have formed no part of the education of the rich any more than of the poor; nor have they either time or inclination to divert their attention from the overwhelming pursuit of the contests for immediate wealth and vulgar distinction to such rational, calm, and comprehensive enquiries.

Now, there is scarcely a branch of manufacture or trade that has not its peculiar diseases, over and above those which are incident to all. No operations requiring injurious positions of the body or muscles, or other wise dangerous, would be permitted in a community for a longer time, or under any other circumstances, than would be compatible with the health, and

the preservation of the health, of those who practised them: where a high temperature was required, those whose constitution a high temperature suited would select such occupations, thus turning the facilitators of production into the instruments of health.

We laugh at the Chinese for abridging the natural and useful, and therefore beautiful, form of the feet of the women of the rich, by compression, to the standard of 5 or 6 inches in length; but we force by compression the waist of the women of our rich into the deformity of a diameter of a few inches, from exactly the same love of vain distinction; and by injudicious dress, unequal exposure of the person, inflammatory solid and liquid poisons under the name of luxurious food, and every species of neglect and folly, bring on or accelerate, in co-operation with our cold and variable climate, the progress of pulmonary complaints amongst young people. In a community the circumstances which give rise to such preposterous follies would not exist. Dress would therefore be regulated by utility and remodelled for both sexes, young and old, wherever necessary. The human frame, by properly regulated industry and intellectual exercise and ease, would be developed into health, strength, and beauty, and not deformed in order to prove, by the indications of delicacy and unfitness for exertion, the wealth of its sickly and unfortunate owner.

The last mentioned of the physical causes injurious to health and long life is 'the want of the means of re-establishing health or repairing accidents.' In society as now at random constituted by individual pulling against individual, disease or accident quickly absorb the scanty resources of the poor, the great body of men, and privations and wretchedness unutterable, unseen, unknown, and uncared for by any but the sufferers, frequently terminating in premature death, are under such circumstances the common lot. Insurances and benefit clubs shield not by the *comparatively rich* and in proportion to the need of assistance subtract from the hard-earned passing comforts of industry. Hospitals, infirmaries &c aid those only who are patronized by the subscribers or governors, with skill (frequently bitter and insulting neglect under the pretence of skill) and medicines alone; or if with temporary sustenance, the industrious creep out, *convalescent*, to recover strength in the midst of the dilapidations of all their resources and with utter ignorance of the means of regimen and other means (even if they had the pecuniary resources) necessary to the re-establishment of perfect health. In a co-operative community, not only would medical or surgical skill and medicine and sustenance and appropriate attendance and accommodations and all physical renovating materials be afforded to all, but during recovery the patient would be surrounded with every physical and cheering moral agent appropriate to the perfect establishment of health, and the first returning efforts of industry would be light and adapted in species, ease, and length of exertion, to the returning powers, and the patient instead of being surrounded with rivals *competing* with him for bread and potatoes and newly-made rags, would be cheered and welcomed by associated friends all *interested* in his health, skill, and the productiveness of his exertions.

If from the physical causes of disease we turn to the mental, we shall find the superiority of communities equally striking in removing them; their removal being for the most part a necessary consequence of the removal of the physical causes of

disease and premature death which we have noticed, and all of them under the influence of co-operative arrangements. Almost all the *disappointments, anxieties and vexations* of life arise, amongst the poor, from want or dread of want of the physical means of comfort or existence, and amongst the rich from contests to outdo each other in the way of accumulation. There is no tranquillity, no peace of mind, no calm reliance on the certain effects of industry and integrity: all is a vortex of hope, of apprehension: truth and confidence between man and man, form the exception, not the rule, of life and social intercourse: rivalry, and distrust, the necessary effects of competition, universally prevail: a universal fever of excitement amongst the fortunate, not to increase enjoyment but, to outrun each other, burns through society: amongst the poor rankle a universal languor, depression, discontent, and unhoping ignorance. The springs of the life of every individual, the nervous system acting on the vascular and digestive and thro' them on the whole physical frame, are eternally preyed upon and weakened through imperceptible mental impulses, sometimes producing the glaring effects of insanity, sometimes of self-destruction, but usually in all other cases, the unerring effect of liability to disease the premature yielding to its ever-ready attacks. It is evident that the arrangements of co-operative industry, where all is joint possession, and where the enjoyments of one can only advance in union and at an equal pace with all surrounding enjoyments, the disappointments, anxieties, and vexations arising from the pursuit of exclusive wealth must be unknown; and thus will physical causes judiciously directed to the preservation of health and long life, be undisturbed in their operation and produce their appropriate effects.

Next, of the mental causes destructive to health, come the *ungratified vehemence and excesses of misdirection of the passions or desires*. Now, from the artificial restraints and antipathies of society arising from inequalities of wealth, power, and honor, from the despotism exercised by the richer or stronger over the weaker, seldom can natural feelings display themselves: connexions of what are called friendship or love, are made with a view to wealth and domination: envies and jealousies and hatreds are generated even after such connexions are formed, or their formation is prevented by trifling differences of station: despair and fury seize on their victims, and melancholy or violence, from the impossibility of innocent gratification, eat away or at once snap short the thread of existence. On the other hand, the mere animal part of sexual pleasure is bought by the rich of the stronger or dominant sex at the lowest market price of competition and enjoyed with as heartless selfishness as any other purchased gratification: while the weaker, poorer, selling parties, used, thrown by, and trampled upon, generally terminate life after a few years of feverish riot. How different in a community where all would be equal in point of possessions and enjoyments, whence all the sources of antipathy would be gradually removed, and where *personal qualities* and mutual pleasing would be the only passports requisite to mutual happiness. No selling or buying of friendship, affection or love. Rage, hatred, envy, jealousy, fear, with all the other malignant or depressing passions wearing out the springs of life, would be gradually obliterated by the imperceptible effects of co-operative arrangements, from want of food to prey upon: while the inspiring passions, joy, hope, affection, invigorating life and averting or mitigating the effects even of injurious physical

agencies, would spring up, like the creations of industry, from the assured prospects of success attendant on exertion, from easy access to appropriate objects of gratification, from the daily mutual interchange of acts tending to excite mutual good-will, and from the dependence of each on all and of all on each individual member. The natural desires, (now preposterously over-lauded, over-estimated, and over-excited, and as preposterously repressed) when left to their free course, with no artificial obstacles interposed, mutually find out the appropriate objects of enjoyment, and find their level of gentle and healthful gratification and contentment: and when all possible consequential evils, such as an injurious increase of numbers or abstraction of time from useful employments are, by appropriate regulations, guarded against, all the evils now arising from the misdirection of the passions would be avoided, and unbridled vehemence having no stimulus, from the removal of unnatural restraints, would not be called into action.

Last of the mental causes affecting health and long life, and which peculiarly affect the rich, rendering useless to their happiness what is wrung out of the wretchedness of their fellow-creatures, are the *listlessness and disgust* arising from over-repletion and want of active employment. To escape from the dreaded enemy, the listlessness of their own vacuity of thought, the idle rich, left without motives to exertion, rack their inventions for pleasures which require no exertion, in the enjoyment of which they will be the mere passive recipients; or failing in this, from want of pecuniary means or from want of capability in an over-excited organization, they rush into the hazards of chance, preferring the risk of positive misery from the reverses and consequential vices of gambling in its various shapes, to their habitual waste and desert of existence amidst the craving of unemployed capabilities. The idle rich know not that personal exertion is one of the most essential of the constituents of the price that must be paid for health and continued enjoyment; or they have lost the power, with the motives, of commanding such necessary exertion. By rendering moderate and healthful employment, muscular or mental, necessary to the existence of all, capable of such employment, these scourges to the lives of many whom the poor esteem blessed, would be banished. The now expressive and fatal word, *ennui*, would not be found in the vocabulary of co-operative industry: cheerfulness would be the ever-constant attendant on activity, and this last class of evils to health from over-excitement and indolence, would be unknown.

The preservation of uninterrupted health therefore through the longest period of life, would be peculiarly within the power of co-operative communities. It would be their interest to find out and to study and to experiment upon all they physical causes affecting health, the quality, permanent effects, *quantity* and regulation of food, and of other physical agents; and these being discovered, free course would be given to their operation by the removal of those mental causes, effected by co-operative arrangements, which if left as now in full activity, would rend of no effect to happiness even the blessings of health and long life themselves.

As to the restoration of health when deranged, the secondary and subordinate object of the study and anxiety of co-operative physicians, we may at length look forward with much confidence, to a consistent, simple, philosophical practice, from the new and widely-extending French School of Medicine

under the auspices of Professor Broussais of Paris. Dr. Broussais, formerly one of the heads of the medical staff of the French armies under Buonaparte and the Bourbons, without knowing or borrowing from the observations and opinions of the most celebrated physicians and surgeons in England, such as Abernethy, Lambe, Laurence, &c. co-temporary of the two former and predecessor of the latter, has systematised and improved upon their theory and practice, particularly in the regulation of food and other over-exciting stimulants to the diseased and convalescent, so as to promise an expeditious and soothing mode of living on gently-exciting food which can alone secure the preservation of health, with length of life. The leading features of the new school are, that the greater part by far of our diseases proceed from inflammation or irritation, first of a particular part, mostly of the stomach or intestinal canal; that the general mode of cure is by prompt local bleeding, instead of general blood-letting, applied as nearly as possible to the part affected; substituting for stimulating drugs and exciting food sedative and soothing internal and external applications, and saccharine, mucilaginous, or lemon-acid drinks until other nutritive but non-irritating solids can be borne by the stomach or intestines without increasing or keeping up the irritation. Almost all our common diseases, those of the liver, the lungs, the brain, gout, rheumatism, etc., are shown to be almost always secondary, instead of primary, affections, derived, by the sympathy of nervous connection, from the stomach and other parts of the long intestinal canal, and mostly brought on by the improper regulation, or rather utter want of regulation, of the physical agents, food, air, heat, cold, moisture, etc., on the human frame. See Broussais' *'Examen des doctrines médicales'*, and *'Conversations on physiological medicine.'*

But we must not expect from Dr Broussais or from any other school of medicine, more than they promise or undertake, namely to *cure diseases* once contracted, not to restore perfect health, much less to preserve that first object of rational desire. *To the patient himself*, (necessarily, under present social arrangements, ignorant, and anxious only for the re-enjoyment of the interrupted pleasure of taste and appetite of whatever species the chance of his situation might have enabled him to procure when in health), is almost always left, and, under ordinary circumstances, must ever be left, the task of preserving his own health. To accomplish this, an acquaintance with a considerable portion of the most interesting branches of physical knowledge, particularly the facts or organisation and conditions of life, as well as a habit of steady regard to future consequences, are indispensable requisites. To enable every one to acquire such knowledge and such habits, now within the reach of almost none, would be one of the results of co-operative education.

As the progress of the increase of the numbers of mankind, and of improved and increased culture of the soil, must lead to the universal substitution of the use of vegetable instead of animal food for human support, it is pleasant to reflect that all the late developments of science and experiment tend to show that the improvement of the human race, particularly of their mental powers, as well as comparative freedom from disease and length of life, will be incalculably forwarded by such a change. All liquors whatever capable of intoxicating, whether extracted from vegetable or animal substances, are pernicious as articles of food. But even in vegetable nourishment (grains, fruits, roots,

leaves, and their combinations and extracts), *excess* must be guarded against as well as in using animal matter, as leading to irritation and inflammation as certain, though not as violent, as excess in animal or mixed food. The writer has not for the last fourteen years of his life used any species of animal food nor any sort of intoxicating liquor; but finds it more necessary than when using mixed food to curb, as well in the *quantity* as the selection of his vegetable food, an appetite now always too eager for gratification. The result chiefly of personal experiments, aided by observation and by the testimony of the experience of others, has afforded the following list of articles of ordinary vegetable food in the order of their nutritious qualities and their effects in raising the pulse, stimulating the system, etc., though eaten in quantities proportionate to their nourishing qualities, the first, turnips, being the weakest, the nineteenth, wheaten flour, the most nourishing article of vegetable food.

- 1 Turnips.
- 2 Cabbages, common sorts, something varying in nourishment.
- 3 Home ripe fruits, apples, pears, &c. not prepared by cooking.
- 4 Broccoli, cauliflower, spinach, Jerusalem artichokes.
- 5 Carrots, onions, etc., garlick, roasted chestnuts.
- 6 Apples stewed, &c. with sugar; pears, plums, &c. ditto; rhubarb.
- 7 Peas, beans, cooked green; kidney-beans.
- 8 Parsnips.
- 9 Rice boiled in water, without sugar or other nourishing addition.
- 10 Potatoes.
- 11 Rice boiled in water with sugar.
- 12 Peas preserved and boiled.
- 13 Figs, raisins, currants, dried, eaten very slowly.
- 14 Potato flour, cleared of fibrous matter.
- 15 Arrow-root flour, or potato imitation thereof.
- 16 Oaten flour.
- 17 Barley flour.
- 18 Indian Corn flour.
- 19 Wheaten flour.

When either of the above articles is prepared by *stewing* with milk, butter, lard, or other animal matter, it loses its place in the scale, and the weakest article so compounded may be made more exciting than the most nutritious in the list, according to the quantity and quality of the additions. Mixtures of the above simple substances (if not chemically altered by the combination or preparation by heat) in puddings, pies, soups, stews, &c., will nourish and excite in proportion to the respective quantities of their component parts. The relative quantities of the above nineteen gradations of vegetable food, to be consumed by any individual so as to produce the same effects in the way of nourishment, motion of the blood, and general stimulation, (derangements and peculiarities of constitution excepted) may be put down as five or six parts for the first or least nourishing on the list (say a mixture of turnips and cabbages) for one part of the most nourishing, wheaten grain, or its prepared flour; and the intermediate articles will be nearly in the ratio of their numbers as to nourishing and stimulating effects.

The effects on the pulse or circulation and the stimulating qualities on the system, do not always coincide with the

nutritive qualities of vegetables; i.e. the most nourishing are not always the most stimulating nor the less nourishing always the less stimulating; nor would the order of effect even of the nutritive qualities be the same on all constitutions, though not deranged, as now, by over-stimulating or unhealthy food. But the exceptions arising from these sources are trivial, and are easily adjusted in practice.

The under vegetable articles, nourishing and stimulating in the order that they are marked, may be usefully employed as seasoners to the above simple articles of food, or simply with a view to vary the preparation of the food, at the same time increasing its nutritive and stimulating qualities, viz;

- 20 Raspberry, currant, and other jams richly preserved, without spirits.
- 21 Jellies of currant and other fruits richly preserved.
- 22 Honey.
- 23 Sugar, sugar-candy.
- 24 Gums, Arabic, &c.
- 25 Vegetable oils.

The foregoing lists of the articles of food in the order of their nourishing and stimulating effects, will be found particularly useful to the convalescent and to the invalid, as soon as the state of the digestive organs permits the use of solids to succeed to that of liquid food.

Salads and all sorts of small vegetables, nourishing according to the above numbers to which they are most nearly allied, are chiefly used to mix up with the above more substantial articles for soups, stews, &c.: vinegar, mustard, catsup, and other vegetable extracts, as mere seasoners.

Tea, coffee, chocolate, with other vegetable infusions, should be used chiefly as seasoners and qualifiers of water where the

vegetable food is of the more nutritive description, as when it consists chiefly of bread and other preparations or combinations of flour from the different grains, particularly wheat, or of dried fruits, none of which supply sufficient water for the wants of the system.

Additions, corrections &c.

The stomach of every person (peculiarities of constitution excepted) which is not capable of digesting without added stimulants, all wholesome vegetable matter, such as bread, potatoes, parsnips, greens, *ripe* home or foreign fruits, &c. is not in a sound but in a diseased state. People with sickly, over-excited, or worn-out stomachs, every day exclaim, that dry bread, peas, carrots, figs, &c. according to the caprices of their debilitated organs, are indigestible and won't agree with them; never dreaming that the fault may, and mostly does, proceed from their organs rendered weak of digestion and incapable of assimilating simple and wholesome articles of nourishment, by a long use of over-exciting stimulants in the way of ordinary food, such as meats, and intoxicating liquors, and by the constantly *excessive quantity* of whatever they eat and drink. Whoever in a state of pretended health, though ever so strong and ever so ruddy, complains of incapacity to digest wholesome vegetable substances, such as potatoes, parsnips, turnips, should learn that his digestive organs are deranged; and his first measures towards recovering real health, should be to bring back his digestive organs, simply by abstinence and lowering his excitements to the weakened state of his organs, to the capability not only of digesting, but of enjoying, such simple vegetable substances as articles of food.

Editor's note. In the interest of clarity, some spelling mistakes in the original have been corrected.

Practical directions to the preservation of health

Alun Evans

Robert Owen, the Welsh Philanthropist and William Thompson, the Cork Philosopher, or Communist, were two giants of the Co-operative Movement. While Owen crusaded for the New

Moral World, Thompson provided the intellectual spine of the Movement through a series of major books in the 1820s. If the paternalistic Owen outlined the Protocol of the great social experiment, the meticulous Thompson wrote its Manual of Operations. *Practical Directions* was the complete recipe book for setting up communes and devoted an entire chapter to the