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THE FOUNDATION OF DEATH

A STUDY OF THE DRINK-QUESTION

BY

AXEL GUSTAFSON

FOURTH EDITION, REVISED

LONDON
KEGAN PAUL, TRENCH & CO., 1, PATERNOSTER SQUARE
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DEDICATION.

To my wife, who has fully shared with me the hard year's work of which this book is the outcome, I dedicate it in gratitude and admiration for the genius and devoted labour, literary experience and skill, by which every page of it has benefited.

London, *May* 29, 1884.

PREFACE.

In the time which I have been able to devote to this work—begun in April, 1883—it has been my endeavour to formulate with thoroughness and impartiality as to evidence, and with conscientious care and clearness as to combination and deduction, all that is clearly known and proven regarding the grave problem of alcohol and human life.

At the outset of this study, I entertained, besides a good deal of general ignorance on the subject and a mass of erroneous notions, the idea that there probably existed a safe dietetic dose of alcohol; that such a limitation in the use of alcohol could be secured by suitable legislation, and thus the rank evil of drunkenness be stayed; and that a proper preliminary to this end would be an inquiry into what in the various countries had been deemed the most successful systems of licensing.

In researches which covered the examination of some three thousand works, dealing more or less directly with the alcohol question, I found excellent matter on special aspects of it, but no single work which attempted to treat of it in a comprehensive manner. The world-literature on alcohol is enormous, largely consisting of conflicting or dubious statements; records of experiments made by different authorities reaching divergent conclusions; cogent reasoning threaded by disintegrating fallacies; and contradictory promulgations by one and the same author in various works, and not infrequently in different parts of the same work.

Though the task of distinguishing, from among the traces along such a shore, between the flotsam and jetsam of the fluctuating tides of popular prejudices and notions, and the actual deposit marking the gradual progress of Truth's laborious but certain advance, might fitly engage far greater powers than mine, I have not felt deterred from making this earnest attempt.

The general difficulty in selecting from super-abundance of material is well understood, but when the aim is to make a sound and suitable garment, three times the quantity of cloth needed does not make up for its being blemished and perforated in every yard. This has been one great obstacle in the selection and

arrangement of quotations from the various authors, *i.e.*, to winnow facts and significances from conflicting evidence and unsound arguments, to pick out and put into their proper relations the clearest, truest, most consequent dicta I could find, so as to form a whole and well-proportioned statement of the sum of experience and fact concerning this question.

It will not be difficult to cite from authorities quoted by me, in one sense, other passages which may seem to modify or even perhaps contradict those I have selected. I can forestall criticism on such grounds only by saying that unconscious shuffling or deliberate equivocation on the part of an author cannot take from the intrinsic value of any truth which he has once seen, stated, and served, any more than could Galileo's recantation stop the sun.

It cannot be useful to perpetuate a man's poorer and weaker words merely in order to destroy the due effect of his best utterances. And though individual inconsistencies have a certain value, it is not to them we must chiefly look for the solution of a great question of race import, but to the general tenor and character of the testimonies given by the cloud of witnesses who, whether from a mixture of motives or in single-mindedness, have studied it; and it is from the points of consent where scientists, philosophers, and humanitarians have met and agreed, that we may hope to

begin a path toward the full and definite truth about alcohol and man.

With the avowed aim of dealing with the entire liquor question from every side and standpoint, it has not been possible within the limits of a work cheap enough to be in reach of the working classes, to deal fully with the drink question of all countries in Chapters X. and XIII., on "Social Results" and "What can be Done?" And for many reasons Great Britain is almost exclusively considered in both these chapters, especially in the last. In each of the thirteen chapters I have tried to include only what belongs under its particular heading, and to the best of my ability, the contents of each chapter, and all the chapters in relation to each other, have been arranged and proportioned so as to bring the whole into good focus for the reader, at whatever point he may incline to take up the subject.

In making quotations the following rules have been observed:—to give the title of the work, with place and date of publication; to quote from the latest edition, and, if another work by the same author intervenes, to re-mention in full the preceding work if it is again referred to in the same chapter; to translate the titles of foreign works into English, except in cases of classical or such modern titles as have not been included in the bibliography, or when by transla-

tion the finding of the work cited would be made more difficult. Such quotations as have been rendered from other tongues into the English have been mostly translated by myself, because, when I tried to use translations already made, it frequently appeared that they were inaccurate, and therefore I thought that if fault should be found with the translated portions of my book, I would prefer being responsible for my own than others' mistakes in that line.

The footnotes are not less valuable in their bearing on the drink question than the body of the text from which they are eliminated for easily seen reasons, generally to prevent break or tenuity in the argument.

The appendix, with the exception of the abstract from the last report of the British Commissioners of Lunacy, deals exclusively with the rights and means of legal suppression of the liquor traffic. In order to enable the reader to find any passage by the table of contents as readily as by the general index, the text has been divided throughout the book into numbered paragraphs, accompanied by marginal notes, which are found in the same order in the table of contents; and the readiest method of utilizing the bibliography has been explained in the brief preface to it.

In the preparation of this work I have received cordial encouragement and the kindest assistance from many friends of temperance reform and from many not

identified with it, to each and all of whom my grateful thanks are due, and are here warmly rendered. Among the names of those to whom I am more especially indebted for help and sympathy indispensable to my undertaking are Mr. Samuel Morley, M.P., Dr. Norman Kerr, Dr. James Edmunds, Mr. Robert Rae, Dr. Dawson Burns, Dr. R. Garnett, Mr. John P. Anderson, Mr. G. W. Eccles, Mr. J. W. Leng, Mr. T. H. Evans, Mr. F. Sherlock, the Rev. Dr. de Colleville, the Archbishop of Canterbury, the Dean of Westminster, Canon Henry J. Ellison, Earl Shaftesbury, Rev. Dr. Hermann Adler, delegate Chief Rabbi, and Mr. J. W. Kolckmann, the German publisher, all of England; to Dr. L. Lunier of Paris, Baron Lynden and the Rev. A. von Scheltema of Holland.

While the book has been going through the press, I have used every power and facility at my command in the labour of revision and bringing up to date. This has involved a rearrangement and transposition of portions of the contents, and through the latter some slight verbal errors have crept in, and been discovered too late for correction in this edition.

As to the title of the book, though it may at first appear exaggerated and sensational, I believe it to be a scientifically accurate description of the nature and career of alcohol in the life of man. "Life never *is*, it

is always becoming; it is not a state, but a flow," says Professor J. Moleschott. And of death Dr. Hufeland says, "Generally speaking, death is not a change undergone in a moment, but a gradual passage from a condition of active to a condition of latent life."

As there are many springs and foundations of life, so there are, doubtless, many foundations of death, deaths national, individual, intellectual, moral, and spiritual, as well as physical, but among them alcohol, if the true story of it is told by those who bear witness in this work, is pre-eminently a destroyer in every department of life, and therefore is truly the foundation of death.

45, Upper Gloucester Place,
Portman Square, London, N. W.,
May 28, 1884.

NOTE TO THIRD EDITION.

In preparing the third edition—which is intended to stand until advance in study, discovery, and action concerning the Alcohol-question shall have furnished material with occasion for its revision—I have endeavoured by a careful re-examination of all its parts to make it still more easy of reference, and have made valuable additions to the bibliography.

Clacton-on-Sea,
November 26, 1884.

TABLE OF CONTENTS.

CHAPTER I.

DRINKING AMONG THE ANCIENTS.

PAGE

§ 1. Difference between ancient and modern ideas of life, especially as regards drinking. § 2. Soma, and its characteristics. § 3. The ancient wine traditions—Myths about the vine as being the forbidden fruit—Traditions as to Noah and Satan planting the vine—Origin of the purple grape. § 4. Origin, history, and character of Bacchus-worship—The Eleusinian mysteries. § 5. Proofs in historic records of the destroying power of drink—Assyria, Media, Persia, Egypt, Greece, and Rome—Drinking among the Sueves, Jews, and Mohammedans ... 1

CHAPTER II.

HISTORY OF THE DISCOVERY OF DISTILLATION.

§ 6. Causes of ignorance regarding the discovery of distillation —Nature and meaning of distillation. § 7. China and distillation —Arabia and distillation—Geber. § 8. Rhazes, Albucassis, Raimundus Lullus, and Arnoldus Villa-Novus. § 9. Reasons for the alchemists' belief in alcohol, and for the credulity of the masses. § 10. Various names for alcohol—Derivations of the word alcohol 25

CHAPTER III.

PRELIMINARIES TO THE STUDY OF MODERN DRINKING.

§ 11. Survey of the origin and progress of the sciences of chemistry and physiology—Aristotle's four-element theory —First establishment of the existence of chemical elements

PAGE

—Lavoisier's discovery of the basis of oxidation—The foundation of scientific physiology laid in 1850 in the cell discovery. § 12. How alcohol became a prominent subject for chemical investigation—Discovery of ethyl, methyl, and amyl alcohols—The great number of groups, series, and varieties of alcohols—The elements of alcohol—The natural sources of alcohols—The meaning and processes of fermentation—The nature, action, and influence of ferments on life. § 13. Date of the first discovery of the real nature of alcoholic ferments—Generation of yeast fungi—The lethal nature of alcoholic fermentation—Saccharine fermentation in explanation of the traces of alcohol found in water, air, and earth—Alcohol in bread fermentation—Alcohol in living organisms, plants, and animals. § 14. The tendency of alcohol to decompose into elements. § 15. The various chemical and industrial uses for alcohols. § 16. Sources of the alcohols found in drinks.—Malting—Various alcoholic drinks 34

CHAPTER IV.

ADULTERATIONS.

§ 17. Universality of liquor adulteration—Various poisons used in processes of adulteration. § 18. Reasons why wines are adulterated—Adulterations of Rhine wine. § 19. Port wine and sherry adulterations—The London *Times* on sherry adulteration. § 20. The *Daily Telegraph* on Spanish wine manufacture from raw spirits—The *Daily News* on the pending wine adulteration treaty with Spain—Wine-fortifying with raw potato-spirit in London docks under Government supervision. § 21. Special ills and diseases directly traceable to the adulterating ingredients in wines. § 22. Beer adulteration—Lupulit 46

CHAPTER V.

PHYSIOLOGICAL RESULTS; OR, EFFECTS OF ALCOHOL ON THE PHYSICAL ORGANS AND FUNCTIONS.

§ 23. Difficulty in fixing the normal limit of human life—Opinions of Dr. L. Hermann, Dr. J. R. Farre, and Prof. P. Flourens on this point—Man's responsibility in this matter—Ignorance the chief cause and alcohol the chief agent in shortening life. § 24. The wisdom manifested in the laws controlling and preserving organic life. § 25. Chemical elements of the human body—How it is maintained—Definition of food—Division of foods—The processes of nutri-

tion. § 26. The nature and dual mission of the blood—Its constituent parts and their mission—Water the paramount need of the system—Drs. W. B. Carpenter and Austin Flint on this point—Drs. Becquerel, Rodier, and Albin Koch on the predominance of water in the blood. § 27. Definition and division of poisons. § 28. The attitude of the medical profession concerning the use of alcohol—Is alcohol food?—Dr. Baer's statement that alcohol contains no tissue-making compounds—Dr. Klein's testimony to its worthlessness as a food—How the idea of its being a food came about. § 29. Alcohol tried by food-tests. § 30. Alcohol inimical to life—Sir Anthony Carlisle on this point—A variety of conditions qualifying the effects of alcohol on man. § 31. The hurtful effect of alcohol on nutrition twofold: viz. retardation of the processes of digestion and assimilation, and interference with the purely aqueous nature of the blood—Description of its effects on digestion—The rapidity of its entrance into the blood alone preserves the digestion from ruin—Drs. Todd and Bowman on this point—Dr. F. R. Lees' summary of the effects of alcohol on digestion—The effects of alcohol on the stomach itself—Dr. William Beaumont's experiments on the stomach of the Canadian hunter, St. Martin—General summary of the effects of alcohol on digestion and the stomach. § 32. Preliminary comment on the effects of alcohol on the blood. § 33. Remarks on the food elements in alcoholic drinks—The *Lancet* on the nutritious elements in wines—Special consideration of malt liquors—The food in alcoholic drinks not in the alcohol, but in the residuals—Drs. J. W. Beaumont and T. L. Brunton on the character of the fat in the system of malt-liquor drinkers—Why Dr. W. A. Hammond regards alcohol as a food—The meaning of alcoholic preservation of tissue. § 34. Special consideration of the action of alcohol on the blood—Dr. C. H. Schulz on the nature of alcoholic degeneration of the blood—Dr. Dumas, the physiologists Böcker and Virschow, Dr. Baer, Prof. Hermann, and Prof. Dogiel on the same—The effect of alcoholic degeneration of the blood on the nutrition of the tissues—Dr. Böcker's experiments proving that alcohol, by retarding oxidation, tends to turn man's body into a preserved compost. § 35. How alcohol wastes and poisons the water of the system—The "drink-crave" a result of thirst—Dr. Flint on this point—The exactions made by alcohol upon the water of the system—The systemic need of water misunderstood as a need for alcohol. § 36. Alcoholic degeneration of the blood-vessels—Dr. James Edmunds on this point—Sir James Paget's warning to his disciples against surgical operations even on moderate drinkers. § 37. Theories as to what becomes of alcohol after it enters the blood current, by Baron Liebig. Drs. L'Allemand, Perrin, and Duroy, Prof. Bauer, and Drs.

Bouchardat and Sandras. § 38. The difficulty of arriving at definite conclusions on this point—A solution possibly to be found in the action of hydrolytic ferments—Dr. E. G. Figg on the presence of alcohol in the breath—Dr. James Hinton's *Physiology for Practical Use* on the same—Alcohol discovered in skin evaporations—Drs. E. G. Figg and T. L. Brunton on this point—Alcohol found in the urine—Drs. L'Allemand, Perrin, and Duroy, James Kirk, John Percy, E. G. Figg, and Herr Kuyper on alcohol in the brain. § 39. Effects of alcohol on the temperature of the body—Opinions on this point by Drs. Dumeril, Dumarquay, and Lecoint, Drs. Nasse, Prout, Davis, and Edward Smith, Prof. Binz and Drs. Dujardin-Beaumetz and Audigé—Practical evidences that alcohol reduces the temperature of the body—Plausible theories for reconciling the fall of bodily temperature with the Liebigian combustion theory. § 40. Alcohol and the nervous system—Physiology of the nervous system—Dr. James Cantile on the character and functions of the nervous system—Parallel physiological effects of alcohol on the nervous and muscular tissues—Alcohol acts directly on the brain—Dr. Baer on this point—Possible solution of the riddle why alcohol when taken rapidly, intoxicates less and more slowly than when gradually taken, by sipping—The division of special nerve-affectants into stimulants and narcotics—Conflicting definitions of these terms by Dr. A. Billing, Sir J. Forbes, Drs. Headland, T. King Chambers, and T. L. Brunton—Definition of stimulants and their division into invigorators and prostrators—Definition of narcotics, and their division into pseudo-stimulants and plain narcotics—Further explanation of the term pseudo-stimulants—Alcohol a narcotic poison—Dr. Thomas Trotter, in 1804, speaks of the medical controversy as to whether alcohol is a narcotic or stimulant—Prof. Christison, Drs. Figg, Anstie, and Edmunds on this point—The twofold narcotizing action of alcohol on the brain and nerves—Alcohol's interference with the powers of co-ordination and temporary abolition of sensation—Prof. John Fiske on incipient alcoholic paralysis—Drs. Nicol, Mossop, and E. Smith on the tendency of alcohol to paralyze vision—The quality of the brain decides the quality of its communicating powers—Dr. J. Crichton Browne on this point—Alcohol degrades the quality of brain and nerves—Dr. Parkes on the paralyzing effect of alcohol on the power of transmitting thought—Dr. Howie on the same—Dr. J. J. Ridge's experiments with minute doses of alcohol, proving its paralyzing effects upon feeling, weight, and vision—Dr. Scougal, in confirmation of Dr. Ridge, adding that the sense of hearing is similarly affected by alcohol. § 41. How the alcoholic nerve-degradation assists in producing the drink-crave—Dr. Anstie and Prof. Fiske on this

PAGE

point—general practical conclusions as to the narcotic results from the use of alcohol. § 42. Dr. E. G. Figg on the injurious effects of alcohol when used as a mental stimulant —Sir Andrew Clark on the same—Mr. A. Arthur Reade's summary from one hundred and thirty-two letters on this point—The Rev. Stopford A. Brooke's testimony on this point. § 43. Proofs and opinions for the statement that alcohol reduces the capacity for physical labour—Drs. Beddoes and Donders, Baron Liebig, and Drs. Parkes and Wollowicz on this point. § 44. General summary of the physiological results of the use of alcohol 57

CHAPTER VI.

PATHOLOGICAL RESULTS; OR, DISEASES CAUSED BY ALCOHOL.

§ 45. Definitions of the terms disease and health—Dr. Huss, the originator of the term *alcoholism* and its division into acute and chronic. § 46. Meaning of the term chronic alcoholism—The general scope of alcoholism—Prof. Christison on general diseases due to the use of alcohol—Dr. Murchison on continued fevers, and on functional diseases of the liver—Mr. Startin on skin diseases—Dr. Norman Kerr on alcohol as a cause of erysipelas—Sir William Temple, Dr. Erasmus Darwin, and Dr. Garrod on gout—Dr. Drysdale on beer and gout—Testimony of Bromley Davenport, M.P.—Dr. B. W. Richardson's summary of the functional diseases and organic diseases from alcohol—Prof. Krafft-Ebing on alcoholic tremor—The *Scientific American* on general diseases resulting from beer. § 47. Dr. Huss on acute alcoholism—Prof. Krafft-Ebing on the analogy of acute alcoholic intoxication with insanity—Dr. Mason on alcoholic insanity—*Mania-a-potu;* characteristics, examples—Delirium tremens, its symptoms and general characteristics—Dr. Maudsley's description of delirium tremens—Prof. Krafft-Ebing on crimes committed under alcoholic hallucinations—Dr. Mason on alcoholic epileptiform mania, on chronic alcoholic mania; on chronic alcoholic melancholia and its painful delusions—Conclusions 127

CHAPTER VII.

MORAL RESULTS.

§ 48. Inquiry into the relations between drink and crime—Erroneous inferences of a writer in the *Pall Mall Gazette* on this point—Relations between sobriety and crime as contrasted with those between drink and crime—Examples

PAGE

of unintentional alcoholic criminality—The kind of drink used and the temperament and the circumstances of the drinker largely determine the character of the manifestations of drunkenness—The true field of direct alcoholic criminal activity. § 49. General summary of physiological and mental results—Dr. Christoph. Wilhelm Hufeland on the difficulty of eradicating the drinking habit—Fable of the drunken man and sober pig—Physical and moral effects parallel—Notable exception to this rule—Charles Lamb's pathetic warning. § 50. The effect of alcoholism on the will—Difference between will and intention—Instance of the power of drink to annihilate the will—Moral insolvency of the drinker in the various relations and responsibilities of life: as son, citizen, neighbour, friend, husband, and father—Home of the drunken wife and mother as contrasted with the same home when the husband is the drunkard, and the wife and mother bears her burdens in patience and sobriety. § 51. The effect of alcohol in producing gradual weakening and final destruction of character—Clever disguises assumed by the alcoholized will: in political life, for example—How alcoholism spoils the relations between master and working man and the general relations of life—Gradations produced by alcoholism: first moral unreliability, then turpitude and crime—The forger, the burglar, the murderer—The negative loss of will—The positive loss of will—Rev. Dr. W. E. Channing on the difference between poverty with and without drink—The foundation of human happiness, worth, and progress—Drink the deadly enemy of these—Drink *tends*, however unequally, slowly, insidiously, and with whatever delay of apparent signs, to undermine and destroy will, moral perception, conscience, affection, self-respect, and regard for others in whomsoever forms this evil habit ... 152

CHAPTER VIII.

HEREDITY; OR, THE CURSE ENTAILED ON DESCENDANTS BY ALCOHOL.

§ 52. The laws of generation a protection to the race—The responsibility of parentage—Drs. Marc Lorin, Bourgeois, and Figg on the general laws of heredity—The scope of hereditary effects. § 53. Various authorities on alcoholic heredity—Dr. E. Darwin, Rev. Edward Barry, Dr. Rösch, Dr. Morel, Dr. Figg, Dr. Lanceraux, Dr. Maudsley, Prof. Jaccoud, Dr. Baer, Dr. Gendron, and Dr. Kerr—Dr. Lewis D. Mason on hereditary drink-crave—Prof. Krafft-Ebing on hereditary alcoholic diseases and final extinction of family ... 171

CHAPTER IX.

THERAPEUTICS; OR, ALCOHOL AS A MEDICINE.

§ 54. A sixteenth-century opinion of alcohol as a medicine. § 55. Dr. Norman Kerr on the "Medical History of the Temperance Movement"—Mr. Higginbottom on the advantages of total abstinence as a prescription—The first anti-alcohol Medical Declaration of 1839, drawn up by Dr. Julius Jeffreys—Second anti-alcohol Medical Declaration of 1847, by Mr. John Dunlop—Third anti-alcohol Medical Declaration of 1871, by Dr. E. A. Parkes—Establishment of the quarterly *Medical Temperance Journal*, in 1869—The *British Medical Journal* concerning alcohol as a medicine, Sept., 1871—Dr. McMurtry's eloquent appeal to the medical profession, in the *Medical Temperance Journal*, Oct., 1871—Origin of the third British Medical Declaration—Opinions expressed by the *Times*, *Lancet*, and *Pall Mall Gazette* on the importance of this document—Wording of the third Medical Declaration—General effect produced by it on the public mind—Medical opinions evoked by its publication: Dr. Henry Munroe, Dr. J. J. Ritchie, and Mr. Higginbottom—Address to Mr. Robert Rae in acknowledgment of his great services in the cause of temperance reform, and of the important part taken by him in getting this declaration before the public. § 56. Dr. Charles Hare on the decline in the use of alcohol as a medicine since 1872. § 57. Former and present opinions on the use of alcohol as a medicine—Points regarding alcoholic prescriptions and their preparations—Principal therapeutic uses of alcohol: as a stimulant, as a narcotic, as an anti-spasmodic (Dr. Edmunds on this point), as an anti-septic, and as an anti-pyretic—Dr. S. C. Smith on the comparative worthlessness of anti-septics—The Rev. Dr. Hancock on water treatment in fevers—Dr. Billing on water treatment in typhus fever—Dr. Thomas Beaumont on the same—Dr. William Cayley on the merits of cold-bath treatment in typhoid fever in Germany and France—Dr. A. T. Myers on the great mortality from typhoid fever at St. George's Hospital (1877–1883) under alcoholic treatment—The *British Medical Journal's* (March 1, 1884) summary of the cold-bath treatment discussions, before the London Medical Society—The exclusion of alcohol from the Dosemetric therapeutics. § 58. Dr. Nicolls' report on the results of sixteen years' non-alcoholic treatment of diseases in the Longford Poor Law Union—Origin, foundation, and work of the *London Temperance Hospital*—Dr. Edmunds' statement, including table, regarding the character of the non-alcoholic treatment of disease in this hospital. § 59. The

PAGE

effects of the use of alcohol on mothers and their offspring —Dr. Thomas Trotter and Sir Anthony Carlisle on this point—Drs. Rösch and Grindrod on the evils of the use of alcohol during lactation—Drs. E. G. Figg and E. Smith on the hurtful effects of the use of alcohol during pregnancy and lactation—Dr. Edmunds on the diet of nursing mothers, and on the special effects of beer-drinking during lactation —Dr. Harrison Branthwaite on infant mortality from the use of ale and stout during lactation—Dr. J. C. Reid's warning against alcoholic prescription 181

CHAPTER X.

SOCIAL RESULTS; OR, THE GENERAL EFFECTS ON SOCIETY CAUSED BY ALCOHOL.

§ 60. General value of statistics. § 61. Inconsistency of the attitude of Parliament toward the drink-question. § 62. Various weighty opinions on the destructive effects of alcohol upon society: Buffon, the Rev. H. W. Beecher, the *Times*, Dr. Germain Marty, Right Hon. W. E. Gladstone—Opinions of the judges of the United Kingdom: Mr. M. O'Shaughnessy, Mr. Justice Grove, Mr. Justice Fitzgerald, Baron Dowse, Mr. Raffles (Stipendiary Magistrate of Liverpool), Lord Chief Justice Coleridge, Mr. Justice Denman, Baron Huddleston, and Mr. Justice Hawkins. § 63. Mr. William Hoyle's drink statistics—The Rev. Dawson Burns on the annual expenditure in drink as compared with other expenditure in Great Britain—Mr. Stephen Bourne on the same from an opposite point of view—Mr. Hoyle's "Drink Traffic and its Evils"—Mr. Hoyle's table "showing the Population, Total Cost and Average Cost per Head of Intoxicating Liquors in the United Kingdom for various years from 1820 to 1870, and for each subsequent year up to 1882"—Statements by Sir William Collins and ex-Bailie Lewis to the Scotch Temperance Convention, March 3, 1884, regarding the condition of affairs in Glasgow, due to drink—The relations between drink and poverty—Dr. Dawson Burns on drinking as the mainspring of pauperism. § 64. Parliamentary report in 1834, on intemperance—Reports of Drs. Parkes and Sanderson, statement by Sir Wilfrid Lawson, address by Lord Derby, by Mr. Edward Jones of the Toxteth Board of Guardians, and by the Rev. John Kirk, on the relations between drink and poverty—Testimony of Mr. William Hoyle, Mrs. Mary Bayly, Mr. George R. Sims, and Mr. Caine, M.P., on this point—Archdeacon Farrar's sermon on drink, in Westminster Abbey, Nov. 19, 1883—George R. Sims on *Horrible London*

—The "Dustman's" speech in Exeter Hall, Nov. 21, 1883—Condition of the children of drunkards—Comparison between the revenue returns from drink in prosperous and unprosperous years—Address by Cardinal Manning—Important evidence of Charles Saunders before the parliamentary committee on drink, in 1834—Report of the special sanitary commissioner of the *Lancet*, in 1872—Practical conclusions—The *Daily Telegraph* (Oct. 25, 1883) on *Why should London wait?—The Bitter Cry of Outcast London.* § 65. Mortality from drink—Statement by Coroner Wakley in 1839—Testimony of Dr. Norman Kerr—Report of the Harveian Society—Sir Wm. Gull on alcoholic infanticide—Mortality among liquor-dealers; statements on this point by Dr. Kerr and Mr. David Lewis—Notice concerning publicans, issued by the General Assurance Office in 1881—Statement of Dr. Edmunds—Relative longevity of drinkers and abstainers, as furnished by the United Kingdom Temperance and General Provident Institution for Mutual Life Insurance—Statement of Mr. W. B. Robinson, chief constructor R.N., concerning the "value of life being increased by taking no intoxicating drinks." § 66. Schlegel on drink as a cause of insanity and suicide—Dr. Ganghofner's estimate of alcoholic insanity in America, England, and Holland—Dr. Lockhart Robertson's computation for England and Germany—House of Commons report for from 1865 to 1875—Mr. Hoyle on alcoholic insanity in England and Wales—Last report of the commissioners of lunacy—Dr. Shepherd's statement—Statements by Earl Shaftesbury and Dr. Gilchrist before the Lunacy Commission of 1877—Mr. Hoyle on the increase of alcoholic lunacy in England and Wales—Dr. T. S. Clouston and W. J. Corbet, M.P., on the same—Sanger on alcohol as a cause of prostitution—Summary of the report on drink laid before the Belgian Chambers by Frère-Orban in 1868. § 67. Dr. Edward Young on the annual drink bill of the United States—Mr. Powell, of New York, on the liquor industry of the United States—The *National Temperance Advocate* of New York on the liquor revenue of the United States (1863-1882)—London *Evening Standard* on liquor consumption in the United States—The *New York Herald* on the number of liquor-shops in New York city, in 1883—Dr. Howard Crosby on this point—The condition of Birmingham in this respect; evidence of Mr. J. Chamberlain, M.P., before the Lords' Committee on Intemperance in 1879—The *Pall Mall Gazette* on the number of public-houses in proportion to the population of the various states of the union—Drs. Lee, Wilkins, and Mason on alcoholic insanity in the United States—Dr. Mann, of New York, on general alcoholic insanity—Maxime du Camp on the drink petrolomania in Paris during the siege—Dr. Baer on the deterioration in the French army

PAGE

caused by drink—Dr. E. Lanceraux on alcoholism and decrease in population—Dr. Baer on alcohol and insanity in Prussia—Dr. Finkelburg of the Russian Health Commission on alcohol, insanity, and crime in Russia ... 226

CHAPTER XI.

ORIGIN AND CAUSES OF ALCOHOLISM.

§ 68. Drs. Baer and E. G. Figg on the existence of races (some of them only recently extinct) who knew nothing of the evil habit of alcoholic intoxication—Origin of the mischief. § 69. Likeness between the development of the race and the individual—The individual searches for happiness—The race searches for happiness—Both mistake the *ignis fatuus* for the Star—First gropings towards knowledge by means of the senses—Alcohol believed to be a great agent for producing happiness—Natural appetites and passions changed into unnatural lusts by the abnormal development of the senses—Spiritual and mental progress under these conditions—The two great factions into which this development has divided mankind; the graspers who succeed, the graspers who fail—Alcohol a paramount agent in restricting man to life in the world of the senses—The Rev. Dr. Crane on the *Arts of Intoxication*—True exaltation counterfeited by the fleeting excitement of alcohol—Self-deception has made man miss happiness all round; in religion, in science—Illustration of this—What happiness is, and how it can be found. § 70. Supplementary causes explaining the power alcohol has obtained over mankind—The effect of high living and smoking in vitiating taste, smell, and digestion, and thereby provoking a desire for strong drink—The force of example because of the sympathetic unity of the race—Plutarch on the force of association—Thomas Tryon on the force of example upon children—T. Campbell on the influence and effects of habitual intercourse in daily life—The force of habit because of natural laws: conscious and openly acknowledged effects—Mr. Spurgeon on the responsibility of parents in the matter of drink—We never see our own personal danger—Dr. Wm. Ellery Channing on the responsibility of the wealthy classes toward the poor in the question of abstinence—The force of hereditary habit—Sören Kirkegaard on the force of evil habit—The force of habit become instinct—Difficulty for the race as for the individual to break the chains of habit—Difficulty of adjusting our social relations in harmony with our personal convictions—The great responsibility resting with the throne in this respect—The Canterbury Convoca-

PAGE

tions (1883) on the use of wine in the Lord's Supper—Mr. John Sebright on instinct—Mr. Herbert Spencer and Mr. Shirley Hibberd on the same—Prof. J. J. Romanes on the force of habit-formed instinct becoming nature in a depraved sense. § 71. History waiting to say something new 283

CHAPTER XII.

SPECIOUS REASONINGS CONCERNING THE USE OF ALCOHOL.

§ 72. Similarity of process in body-poisoning and mind-poisoning—The danger of half-truths—The two conditions in which man will admit that evil is evil—Hyper-sensitive individuality a great obstacle in the way of personal reform—The necessity of convincing the masses, the self-deceived as well as the honest searchers and the ignorant—The great need of general and positive knowledge on the subject. § 73. The fallacy of the boast that the virility of the English nation proves the comparative harmlessness of drink—Brief epitome of England's drink history—Bergenroth on the attitude of the English court concerning water-drinking in 1498—Citation from *Camden's Annals*, 1581—Dr. William Bullein, in speaking of the evils of drink in 1595, makes no mention of distilled liquors—Citation from the *Compleat Gentleman* (1622); from Tryon's *Way to Health, Long Life, and Happiness* (1683)—Hard drinking not common in England until the seventeenth century—Citation from De Foe's *Poor Man's Plea;* from Sir John Harrington's *Nugæ Antiquæ;* from Bishop Benson in Lecky's *History of England* (1878)—The Rev. Dr. Dawson Burns on the specious arguments used to prove that the commission of crime in so-called sober countries, justifies the assumption that drink is not at the bottom of most of the crime committed in Great Britain. § 74. Habitual drunkenness universally condemned—Moderate drinking the nucleus of dispute—No fixed standard of moderation possible—Dr. John Cheyne on this point—Fourteen glasses of wine daily, the moderation limit of a German temperance society in the sixteenth century—In our day moderation entirely optional—The elasticity of the term as seen in its usual definitions—The *Lancet* on publicans' specious reasoning about moderation—Mr. Edward Jenkins, M.P., on the same—The *Lancet* on the scope of the term moderation.—The practical worthlessness of the plea of moderation—Dr. Grindrod (*Bacchus*, 1839) on moderate drinking as the preparatory stage of drunkenness—Dr. J. Baxter on moderate drinking—Drs. Copland, Garnett, James Johnson, Macrorie,

PAGE

Gordon, Sewall, Sir Henry Thompson, Sir William Gull, and Dr. W. B. Carpenter on the same—The late Samuel Bowly on moderation *versus* total abstinence—A valuable suggestion by Mr. C. Kegan Paul—The deceptive character of the relief attributed to the moderate use of alcohol in cases of exhaustion from labour. § 76. Dr. R. B. Grindrod on the effects produced by moderate drinking upon temper and judgment—Dr. Baer on the effects produced on mental processes by alcohol—Dr. Hewitt on the character of moderate drinking among the French—The moral responsibility of the moderate drinker—The Rev. Stopford A. Brooke on this point—The Rev. James Smith in refutation of the argument that moderation is better than abstinence—Mr. C. Kegan Paul on the same point—Charles Lamb's warning appeal to young men. § 77. Rev. Howard Crosby's objections to the temperance pledge, and Mr. Wendell Phillips' reply. § 78. The fallacy of positive deductions in arguing the general from the exceptional—Examples—The meaning of the plea for longevity 305

CHAPTER XIII.

WHAT CAN BE DONE?

§ 79. Why past temperance efforts failed—Their character—Early moderation societies—Special reasons for their failure—Characteristics of the modern temperance movement the basis for hope of permanent reform—Initiation of the present popular temperance movement; how it progressed, collapsed, and revived. § 80. Summary of the character and extent of the powers and obligations of the British Government in internal reforms—The sovereign power and hence responsibility of the masses—The people responsible for the morality of Parliament and Government, not the Government for that of the people. § 81. Dangers attending political agitation on moral issues—The paramount importance of sobriety for the protection of national independence—The battle of Hastings lost through drink—The *Echo* on drunkenness in the army—Lord Wolseley on the army and drink—Cardinal Manning on the same—Major-General Sir Evelyn Wood in confirmation of Cardinal Manning's statement. § 82. Mischiefs that have resulted from prematurely driving the liquor-dealers into self-defence unions, by indiscriminate political agitation for prohibition—The earliest moment when prohibition can become a practical and beneficent fact—The hopeful omen of the Queen's speech opening Parliament, 1884. § 83. Various preparatory measures for general prohibition—

Local option: Sir Wilfrid Lawson's scheme—The local option resolution of the great temperance meeting in Edinburgh, March 3, 1884—The attitude of the Government toward it—The question of compensation to the publicans—The publican's side of the question—The public's side of the question—A hint to licensed victuallers how to prepare themselves and their houses for the inevitable—Scheme for reconciling the conflicting interests involved in prohibition with due regard to health, morality, and revenue. § 84. The paramount duty of the Government regarding exportation of liquor, and particularly in case of internal prohibition—The *Temperance League Annual* on this point—Cetewayo's remonstrances with England—The liquor treaties with Siam and Madagascar in 1883. § 85. National slavery under the liquor revenue—Brief summary of the history of licensing—The Grocers' Licence Act; the *Saturday Review*, the *Practitioner*, the *Spectator*, the *Alliance News*, and the *Lancet* on the various evil results of this Act—The attitude of the Church of England Temperance Society toward it; Canon Leigh's advice to the Women's Union to boycott liquor-selling grocers—The *Temperance Record* on the increasing intemperance among women as being largely due to the Grocers' Licence Act—Mr. George R. Sims on the social effects of the grocers' licences—The most pressing reason for the repeal of the grocers' licences. § 86. Various lesser legislative measures; restriction of the power of renewing licences; low windows compulsory for public-houses; prohibition of the employment of women as bar-tenders—Public conveyances should neither bear the names of, nor have their stations at, public-houses—Canon Ellison on juvenile intemperance in Liverpool and Manchester—Instances of juvenile intemperance cited by the *Daily News*, December, 1883; by the *Globe*—Imprisonment a proper penalty for the crime of selling or giving drink to children—The *Lancet's* opinion on this point—Early habits and home example largely responsible for the prevalence of this vice among adults. § 87. Sir William Armstrong on prohibition of the propagation of vice and poverty. § 88. Dr. Norman Kerr and the Dalrymple Home—Dr. Thomas Hawksley on the cure of habitual drunkards—The Lambeth Board of Guardians on the necessity of reform in the Habitual Drunkards' Act. § 89. The need of international relations in view of thorough drink legislation—The need of international agreement for the general suppression of liquor traffic on the seas. § 90. Need for the establishment of a permanent national commission of inquiry into the whole question of alcohol and man. § 91. The origin and establishment of temperance coffee-taverns in England—Their character and usefulness—The prominent part taken by Mrs. Mary Bayly in this movement—Reasons

for the poor results of the coffee-taverns in London—The *Daily Chronicle* on the mismanagement of these establishments—Suggestion for merging the coffee-tavern project into that of the steam-kitchen—First efforts and progress of the steam-kitchen movement on the Continent—Mrs. Lina Morgenstern's steam-kitchen in Berlin—Mr. L. O. Smith's steam-kitchen in Stockholm, and his own account of their importance and work. § 92. Pure water the greatest essential for life and health—Mr. Thomas Tryon on water, 1697—Dr. George Cheyne on the same, 1725—Water ordinance in Antwerp—The agitation for pure water supply in London during the last twenty-five years—A writer in the *Pall Mall Gazette* on the present quality of the water supply in London—The *New York Medical Record* on water for infants—Dr. James Wilson on the therapeutic properties of water—The *Lancet* on water-drinking—Dr. Plöhn's bibliography on water in Dr. Ziemssen's *Handbook of General Therapeutics*—Interesting testimony of Dr. Morel to the recuperative power of natural functions when perversions of them are desisted from. § 93. Importance of instructing children to understand their own bodies, especially in regard to the harm alcohol does to them—Testimony of the Lord Bishop of Exeter; of the Rev. Dr. Adamson, of the Edinburgh School Board—Why the popular education system is poor—Leon Donnat's estimates of the relative amounts expended on education and war by the European powers—Ex-Bailie Lewis on the inadequacy of the Compulsory Education Act, and of sanitary agencies to uproot or essentially diminish the vice and misery produced by the public-house—Dr. Channing's definition of education; his views on the true use of wealth—Temperance teachings in the schools of Massachusetts, 1872—Labours of the National Temperance League for the spread of temperance education—Cardinal Manning's order for the establishment of branches of the Catholic Total Abstinence League in every Catholic school in the Archdiocese of Westminster—Efforts to establish temperance education in German schools, and in the schools of Canada, Australia, and the United States—The school savings-bank system in Sweden—Poverty the worst enemy of popular education, and drink the chief cause of poverty—Statement by Mr. E. N. Buxton, chairman of the London school board—Statement by the Right Hon. A. J. Mundella, M.P., on drink in its bearing upon education—Poverty will never yield until drink is removed—Mr. Gladstone on poverty, House of Commons, 1843—Lord Salisbury's suggestions for the alleviation of poverty, *National Review*, November, 1883—Mr. Chamberlain on the same topic, *Fortnightly Review*, December, 1883—Dangers from supplanting moral impetus by mere political agitation—Earl Shaftesbury on the mischief of

State aid, *Nineteenth Century*, December, 1883—Earl Shaftesbury's statement that "it is impossible, absolutely impossible, to do anything to permanently or considerably relieve poverty until we have got rid of the curse of drink"—A working woman's letter suggesting the establishment of a Government Labour Registry Office, *Daily News*, December, 1883—Sober working men's relief banks—Mr. Francis Peek on the responsibility of the rich in the question of poverty and drink—Mr. Henry George's scheme of land nationalization as a cure for poverty—Neither time, conditions, nor people prepared for it—The foundation of any individual or national regeneration must be laid in temperance—Suggestions as to what might be expected supposing land nationalization should be accomplished without temperance reform—*Evening Standard's* account of the scenes on Brighton beach after the wreck of the *Simla*—Similar scenes following the rescue of the cargo of the wrecked *Royal Adelaide*—Mr. Joseph Cowen on the paramount importance of sobriety. § 94. Dr. Channing on the reforming power of innocent pleasures and amusements—The power and province of the stage in this direction—The moral and refining influence of the Princess's Theatre under the management of Mr. Wilson Barrett—The late Duke of Albany on the duty of the rich in providing pleasure for the poor—The *Newcastle Chronicle* on the provision of amusements as a check on drink and crime. § 95. The great responsibility resting upon magistrates, physicians, and the clergy in regard to the drink evil—The responsibility of the Church in regard to the drink evil—Origin and growth of the Church of England temperance movement—Appeal to the Lords' Committee of 1880 by Canon Henry J. Ellison, for effective legislation in favour of temperance—Archbishop Benson's position regarding temperance reform—Purposes and mission of the Church of England Temperance Society—The Bishop of Carlisle on the success of the labours of this society, St. James' Hall, November 20, 1883—Canon Basil Wilberforce in denunciation of Church proprietorship in public-houses—Practical expression by the Ecclesiastical Commissioners of their interest in the promotion of temperance and education, *Temperance Record*, November 8, 1883—The question of the use of wine in the Lord's Supper—Decision of the Upper House in the Convocations of Canterbury, July, 1883—Modern discoveries, as to the nature and effects of alcohol, leave the conscientious clergyman no alternative—The Rev. Moses Stuart on total abstinence as a qualification for Church membership—The Rev. B. Parsons on the constant risks incurred by attendance at the Lord's Supper—Mr. E. C. Delavan on the use of wine in the Communion—Archdeacon Jeffreys, of Bombay, on the same—The Lord

Bishop of Exeter and Canon Wilberforce on the same; various important considerations involved in this question. § 96. Dr. Channing on drink customs—The origin and age of the drink customs—Strutt on the same—The Queen's opposition to the social bondage of the drink customs; her insight into the national dangers from drink, and her sympathy with temperance reform—The interest manifested by the Prince of Wales in the temperance reform—The interest shown by the late Duke of Albany in the condition of the poor and in temperance reform—The practical inauguration of drinking toasts in water, by the Metropolitan Board of Works, 1883—Toasts drunk in unfermented wines at the inauguration luncheon of the Society for the Study and Cure of Inebriety, April 25, 1884—Prince Puckler on the absurdities of the drink customs—The Rev. B. Parsons on the same; a working man on the same—The Rev. James Smith on the same—Success of Mr. Samuel Morley, M.P., and of Earls Shaftesbury and Stanhope, in securing the abolition of the custom of the payment of wages at public-houses—The Rev. Wm. Moister on the variety and prevalence of social drinking habits—Dr. J. G. Holland on the duty of society in this respect. § 97. Dr. Chapin on the responsibility of wealth for the prevalence of the drink evil—Lord Claud Hamilton's statement (St. James' Hall, May 19, 1870) concerning the prohibition estate in Tyrone—Evidence of Mr. T. W. Russell on the prohibition estate of Bessbrook; Mr. J. G. Richardson's evidence on the same—Statement of Mr. A. E. Eccles concerning the prohibition village of White Coppice—The Saltaire prohibition estate—The prohibition real estate companies of Mr. John Roberts in Liverpool, and the Artisans and Labourers' General Dwelling Company in London—*Pall Mall Gazette* on this point—Mr. Hepworth Dixon's description of the results of the prohibition in St. Johnsbury, Vermont—Success of prohibition in the town of Pullman, U.S.A. § 98. Temperance measures which might be adopted by the wealthy railway companies of Great Britain—Dr. J. G. Holland on "Rum and Railroads"—The lead taken by engineer George Stephenson—Action by the West Lancashire Railway Company in this direction—Growing success of the total abstinence movement on the Midland line, and in the Railway Union at large—Oatmeal drink supplied by the Great Eastern Railway Company to their *employés*—The *Toronto Globe*, February 6, 1884, on "Drinking and Positions of Trust"—Mr. W. J. Spicer's circular to the Grand Trunk Railway—Mr. Bronson Howard's account of the origin of temperance reform on the lakes and the ocean. § 99. Suggestions made by Mr. Samuel Morley, M.P., that an Abstainer's Union should be attached to every commercial concern—Action of the aristocracy of England

PAGE

in favour of the Blue Ribbon movement and other temperance measures—The significance of the Blue Ribbon movement—Mr. Gladstone on the significance of the Blue Ribbon movement. § 100. The plan and organization of the Temperance Federation of Great Britain, 1883. § 101. The foundation of all temperance reform lies in individual character and worth—The hope of temperance reform, like the hope of all other reforms, is vested in love, labour, humility, and unselfishness 331

THE FOUNDATION OF DEATH.

A STUDY OF THE DRINK QUESTION.

CHAPTER I.

DRINKING AMONG THE ANCIENTS.

§ 1. WHETHER we look at the individual, family, community, nation, tribe, or race of man, human advancement seems always to have been surest and most thorough when the lessons of the past have been allowed to bear fruit in the present. The Drink Question is a problem co-extensive with almost the whole preserved history of mankind; and although opinions may be divided as to the effects of drink in our day, that the past must furnish valuable suggestions on this point will not be disputed, and therefore some knowledge of the past history of drink is a necessary preparation for the study of this question in the present.

In trying to form some notion of the drinking habits of the ancients, it is necessary to keep certain facts in mind, facts pertaining to their time and status, and almost wholly absent from ours.

Difference between ancient and modern ideas of life, especially as regards drinking.

The ancient mind in its general tendency towards mysticism and away from materialism—the reverse of the mind of to-day—revered all unexplained phenomena, worshipped all those numberless forces and force manifestations which it could not master or account for, and stood in awe before the, to them,—yes even to us,—essentially veiled principle of intoxication. This awe of the phenomena of intoxication is the one characteristic of nature-

worship which perhaps better than any other illustrates the truth that external nature—being always essentially the same, and impressing man in each age according to the intelligence of that age in essentially the same manner—infused into the religions of the past a striking similarity.

Distillation was unknown among the ancients (excepting possibly the Chinese), and therefore they could know nothing of our distilled liquors, brandy, whisky, gin, rum, liqueurs, etc. Another thing to remember is that though they had fermented drinks, such as *soma*, and grape, palm, fig, pomegranate, apricot, and grain wines, they held, in their childlike veneration of the unknown, a superstitious reverence for fermentation, while their very ignorance of its causes and processes made it exceedingly difficult for them to preserve their fermented drinks from turning into vinegar.

But, being ignorant of distillation, they could not, as is now the practice, fortify their wines with distilled spirits, and their most common drinks must have been from unfermented juices, either pressed direct from the fresh fruit, or boiled down and kept in skins or earthen pots and jars, deposited for coolness in the ground or under water; or extracted from dried grapes—raisins soaked in water, etc.

Their fermented drinks likewise were usually boiled down and kept like the unfermented. As to the strength of their fermented drinks, it seems probable that then, as now, the average was below 15 per cent. of alcohol, but here it must be remembered that the ancients rarely drank fermented wines undiluted, and when they did so, were in the habit of drinking copiously also of pure water; and also that the art of adulteration, now perfected almost beyond the possibility of detection, was then very little understood or practised; for certainly the aromatizing with spices, and sharpening with tar and other substances, as practised by them, cannot be held comparable, for their intoxicating or poisonous effects, with our modern scientific and most unscrupulous mysteries of drink concoctions.

Again, the drinking of fermented liquors was with them largely a religious rite; their banquets were even opened with propitiatory or grateful libations to the deities,

while we use our numberless and highly alcoholized drinks as social and physical stimulants and anodynes.

In a word, the fermented drinks of antiquity were but little adulterated, almost invariably diluted, and associated with a reverential, if undeveloped and mystic worship. While *we* use both fermented and spirituous liquors, highly adulterated, and "fortified," and drink not to God, or with religious aspiration, but to please the palate, excite the senses and passions, kill time, forget sorrows, deaden anxiety, drown conscience, and gain brute courage for infamy and crime.

§ 2. The various ancient religions have come with apparent spontaneity to remarkably similar conclusions as to the origin and history of their intoxicants.

For instance, somewhere in the great records of the East Indians, it is related that the plant from which the *soma* draught was prepared, was brought down from heaven by a falcon; and a legend among their antipodes, the Huron Indians of North America, also ascribes the origin of their intoxicant—the tobacco plant—to heavenly intervention.

In the *Rig-Vedas* (*rig*, verb, to praise, and *veda*, knowledge) the Brahminic Bible and—according to our best Vedic scholars, Professors Müller and Von Roth—the greatest and truest of extant records * of our East Indian progenitors, we find that they had two kinds of intoxicating drinks, *soma* and *sura*.

Important facts as to the drink history of our Vedic ancestors.

Soma (the name of the moon, and also of the king of plants) is at present a plant unknown. From the juice of it, the Vedic people prepared an intoxicating drink.

It has been asserted by some that an intoxicating drink that has been for a long time back prepared by the Indians from the juice of *Sarcostemma acidum*, is the same as the ancient *soma*; but this can scarcely be so, as *soma* was a pleasantly sweet drink, whereas the *Sarcostemma* product is a disagreeably bitter one, and to Europeans quite intolerable.

* It is known with certainty that the *Rig-Vedas* have remained just as they now stand in John Muir's *Original Sanscrit Texts*, for nearly three thousand years. But before their collection, which was probably made yet a thousand years earlier, these hymns had been only orally transmitted, the oldest evidently for some fifteen hundred or two thousand years.

Then again, *Sarcostemma* does not grow in the Seven River Land, the home of the Vedic peoples.

Sura, probably the wine of rice, was not common among them, nor used at the sacrifices, and its use, never in high favour, is often condemned in the Vedas.

The real character of soma, and Indra-worship.

Soma was worshipped as containing the vivifying principle of the universe. It was therefore an essential to the gods, but as it grew on the earth the gods had to descend thither to receive it. And they were supposed to do this at the daily sacrifices which took place at sunrise, noon, and sunset.

In some recent writings on the drink question it has been asserted that our Vedic ancestors were really a set of drunkards, and citations from the numerous hymns to Indra have been made in proof of this assertion. But the most authoritative interpretations of the Vedas do not sustain this charge.

As pure worshippers of the great phenomena of nature our Verdic forefathers were enthusiastic lovers of light and fearers of darkness. Indra was the favourite god of the Vedic nations, and therefore, in spite of his being regarded as the youngest, received a very great number of hymns in praise of his lofty attributes of wisdom and strength. Yet with this mass of hymns to search among, Oriental science has not yet reached unanimity of opinion as to what special contemplation of nature lies at the foundation of Indra-worship. But by such evidences as the hymns contain, and also by supposed etymological derivations of Indra's name—the word *Indra* is cognate with certain Sanscrit words meaning *blue*—a majority of authorities incline to think that Indra signified the personification of the blue heaven reigning over and dispersing the rain-clouds by combat with supposed cloud-giants, which Indra, or the blue heaven, destroys, setting free the waters they had held captive. This seems to clearly explain why the god Indra was always by his devotees assumed to be exceedingly hungry and thirsty :—

"Heartily, as a friend serves a friend, the fire broiled
For him, with its great power, three hundred cattle,
And with these, that he might have strength to slay the dragon,
Indra drank three lakes of *soma*, pressed by man."

V. 29, 7.

How natural that the Vedic peoples, in their worship of the god whom they conceived to be their saviour from terrible droughts and famines, should be eagerly anxious to supply him with as much *soma* (universal life-essence) as he required for the performance of his blessed office. Of course so much of the *soma* as was not poured on the sacrificial fire, the melting butter, horseflesh, or other offering, was probably not thrown away. But even from this it cannot be fairly construed that gross drunkenness was common, for the priests were evidently not a numerous body.

Unique properties of soma.

Another thing to be considered is the fact that though we possess no practical knowledge of *soma*, the *Vedas* furnish abundant unanimous testimony to its unique properties. Besides its agreeable and refreshing qualities, it must have had certain properties wholly unknown in any other intoxicants. Indeed, the *Rig-Vedas* tell us that *soma* was a power in favour of morality, having the effect of intensifying and concentrating the moral impulses, which cannot be said of any now known intoxicant; nor, so far as I have heard or read, has this effect been claimed for any other intoxicant.

For example, we read (translated freely, but with faithful literalness as to the meaning) in the *Rig-Veda* (x. 25), this hymn of praise and adjuration to *soma*:—

"Awaken in us a noble nature of heart!
Quicken us with understanding and knowledge,
So that thy friendship may be unto us, O Juice,
As unto the cows is the grass of the meadows.

"Everywhere over the whole earth the people,
By thy heart's grace, are softened and blest;
So strives also my longing towards thee,
That I too may receive of thy favour.

"Over our herds is thy watch kept, O Juice,
As they move numberless in the fields.
On each thing that hath breath of life thine eye
Gazes, and thou givest it strength to live."

Such is the light which the *Rig-Vedas* themselves throw upon the question of the effects of *soma* drinking, and if a kind of inebriation attended the habit, it seems to have been distinct in nature and consequences from what is

meant by drunkenness in our day, for there is both aspiration toward, and expectation of great good, such as could never have been expressed after even only one experience of the effects of drunkenness as we know it, with its appalling headaches, its dullness, lethargy, melancholy, and incapacity. The above verses—and the *Vedas* furnish many more of a like significance—are a pean to *soma* as the source of light and strength. Nowhere in modern Bacchanal song is such a key-note struck. But even were *soma* intoxication essentially the same as modern drunkenness, the *soma* drunkard, believing in *soma* as the drink of his deities, and as a source of inspiration and energy, is morally far above the modern drunkard.

The *sura*, on the other hand, as we find in Indian history, became later a national curse, so that the great moral reformer, Manu, who lived six hundred years before Christ, found it necessary to impose the severest penalties on *sura* drinkers. For instance, he directed that those who relapsed into the habit after once abstaining, should be compelled to drink some of it while it was ignited.

Ancient wine-traditions.

§ 3. Just as many of the legends and traditions of the polytheistic nations of antiquity taught that the intoxication-giving substances were direct favours of heaven to man, so likewise do several of the traditions and legends belonging to the monotheistic beliefs of antiquity point to Paradise as the land of the grape; some, indeed, claiming the vine as the tree of good and evil, and Noah as the planter of the only grape saved from the Deluge.

Let us take a glance at the ancient wine traditions of that great race which, though for close on two thousand years a landless people, and numbering in Europe according to the latest census only five and a half million souls, and spread over all lands, yet maintains a coherent organization, successfully avoiding amalgamation with or absorption by other nations or races, keeping its own interests intact while rivalling the Christian world in many respects, outflanking her in some and commanding her in others—the Jews.

No country is better adapted for vine culture than the plateau of Palestine, but since the Mohammedan occupation this has been restricted to a few localities, the principal being in the environs of Hebron.

Vine culture was very flourishing in the independent days of Israel, and wine was the chief product of the country, and a fruitful theme of its traditions.

Kotzebue, in his *Journey through Persia*, says that all the reasonings of the ancients on the subject seemed to indicate the Promised Land as the native country of the vine, and even the Greeks in their mythology, place the inventors of wine in Syria and the adjacent countries. At the present day a spot near Mount Ararat is still shown as the place where Noah is said to have planted the first vine.

Myths about the vine as being the forbidden fruit.

The *Talmud*—that gigantic collection of teachings, statutes, laws, traditions, legends, etc., peculiar to the Jewish race—enlarges upon the statements concerning man's earliest existence as given in those much pondered-on, succinct, yet baffling first chapters of Genesis, and records of the Rabbi Jehuda that he thought the vine was the forbidden fruit.*

Various opinions that wine caused the fall of man.

But the Jews are not alone in the belief that wine caused the fall of man. The eminent theologian, Dr. Lightfoot, is said to have held this idea, and Mr. Morewood, in his thoughtful work on *Inebriating Liquors* (Dublin, 1838), makes the pertinent suggestion that Milton probably entertained some such opinion when, in *Paradise Lost*, he wrote of the fruit "whose mortal taste brought death into the world, and all our woes."

> "Soon as the force of that fallacious fruit
> That with exhilarating vapour bland
> About their spirits had played and inmost powers
> Made err—was now exhaled."

But nearly thirty years before the appearance of *Paradise Lost* there was published in London (1638) an inconsequent and shallow little work—though significant in this connection—written by one Dr. Whitaker, entitled *The Tree of Human Life, or The Blood of the Grape*, etc., which opens in these words:—"This subject is blood, in that is life; it is of the vine and that is the plant of life,

* It is curious to find that, according to the Rev. Baring Gould's *Legends of Old Testament Characters, from the Talmud and other Sources*, the inhabitants of the island of St. Vincent thought that the tobacco plant was the forbidden fruit.

and if I should say a species of that was in Paradise, my opinion might not in all place and amongst all persons be rejected . . . for as that (the forbidden fruit) was called the tree of life, so is the vine, and they do not only agree in the appellation but in their nature and effects also."

Morewood (*op. cit.*) says that the Madagascar natives believe that "the four rivers of Paradise consisted of milk, wine, honey, and oil, and that Adam, who required no sustenance, having, contrary to God's command, drunk of the wine and tasted the fruits, was driven from the garden and subjected to the punishments entailed on him and his posterity."

Beliefs that the Deluge was a punishment for drunkenness.

Many learned theologians, both Jew and Gentile, hold that drink existed before the Flood, and that the Deluge came as a Nemesis for excessive drinking, basing this belief on the words of Jesus: "For as in those days which were before the Flood they were eating and drinking . . . and they knew not until the Flood came and took them all away."—*Vide* Matt. xxiv. 38, 39.

That the vine which Noah planted was a sprig from Paradise.

Other Jewish doctors say that the vine which Noah planted was one which the Deluge swept out of Paradise; that Noah, finding it, planted it, and that in the very same day in which it was planted it grew up, bloomed, and bore fruit, which Noah pressed, and swallowing its juice became drunken.*

* Adam Fabroni, an Italian writer of the eighteenth century, in a work on the *Art of making Wine*, attributes to Mutardi-ben-Yasif, an Arab author (13 f. 10), the following curious legend of the vine:—

"Noah, being come out of the ark, ordered each of his sons to build a house. Afterwards they were occupied in sowing and in planting trees, the pippins and fruit of which they had found in the ark. The vine alone was wanting, and they could not discover it. Gabriel then informed them that the devil had desired it, and indeed had some right to it. Hereupon Noah summoned him to appear in the field, and said to him, 'Oh, cursed! why hast thou carried away the vine from me?' 'Because,' replied the devil, 'it belonged to me.' 'Shall I part it for you?' said Gabriel. 'I consent,' answered Noah, 'and will leave him a *fourth*.' 'That is not sufficient for him,' said Gabriel. 'Well, I will take *half*,' replied Noah, 'and he shall take the other.' 'That is not sufficient yet,' responded Gabriel; '*he* must have TWO-THIRDS, and *thou* ONE; and when thy WINE shall have boiled upon the fire until two-thirds are gone, the *remainder* shall be assigned for *your* use.'"

Dr. F. R. Lees, in his *Temperance Text-Book* (London, 1884), cites

Traditions of Noah and Satan planting the vine.

As to the planting of the vine by Noah, the *Talmud* and other Jewish writings give essentially similar descriptions. In Baring Gould's (*op. cit.*) the following version is quoted from Jalkut, Genesis folio 6a :—

"Bowed under his toil, dripping with perspiration, stood the patriarch Noah labouring to break the hard clods. All at once Satan appeared to him and said, 'What new undertaking have you in hand, what new fruit do you expect to extract from these clods?'

"'I plant the grape,' answered the patriarch.

"'The grape! Proud plant! Most precious fruit! Joy and delight to men! Your labour is great, will you allow me to assist you? Let us share the labour of producing the vine.'

"The patriarch in a fit of exhaustion consented. Satan hastened and got a lamb, slaughtered it, and poured its blood over the clods of earth. 'Thence,' said Satan, 'shall it come that those who taste of the grape shall be soft spirited and gentle as this lamb.'

"But Noah sighed. Satan continued his work; he caught a lion, slew it, and poured the blood upon the soil prepared for the plant. 'Thence shall it come,' said he, 'that those who taste the juice of the grape shall be courageous as the lion.' Noah shuddered.

"Satan continuing his work, seized and slew a pig and drenched the soil with its blood. 'Thence shall it

the following from a still earlier work (than Fabroni's), *Letters Writ by a Turkish Spy* (London, 1693) :—

"Noah and his sons planted all sorts of trees, but when they came to look for the Vine, it could not be found. Then it was told Noah by the Angel, that the Devil had stolen it away, as having *some* right to it. Wherefore Noah cited the Devil to appear before the Angel; who gave judgment that the vine should be divided between them into three parts, whereof the Devil should have *two* [as much as to say that its fermented wine does twice as much evil as good]—to which both parties consented. This was the decision of Gabriel: That when *two-thirds* of the liquor of this fruit should be *evaporated away* in boiling over the fire, the *remainder* should be lawful for Noah and his posterity to drink. And thou knowest that we Mussulmans generally obey this law in preparing *our* WINE. Let the Devil, therefore, in the name of God, have his share in the tempting fruit, for when *that which inebriates* [the al-ghôl, or evil-spirit] is separated by fire from the rest, this liquor becomes pure, holy, and blessed. This is the sentence of the ancients."—Vol. v. Lett. 12.

come,' said he, 'that those who drink of the juice of the grape in excess, shall be filthy, degraded, and bestial as swine.'"

Dr. J. Hamburger * gives a similar version :—

"As Noah was occupied planting the vine, Satan drew near. 'What do you plant there?' he asked. 'A vine,' said Noah. 'Of what kind?' 'Its fruit is sweet,' replied Noah, 'whether fresh or dried, and it also gives wine which rejoices the heart of man.' 'So! Let us be comrades in this planting,' said Satan. 'So be it,' answered Noah. Satan then went away and returned with a lamb, a lion, a pig, and an ape, which he killed one after another so that the vine should be drenched with their blood. Then turning to Noah he said, 'These are the signs of the power of wine, We see man before he has taken wine as innocent as the lamb; but soon after enjoying it, he is subjected to various changes. The temperate enjoyment of wine makes him brave as a lion, the intemperate use of it turns him into a pig.'"

Colin de Plancy gives a Mussulman tradition as follows :—

"When Ham had set out the vine, Satan brought and poured upon it a peacock's blood. When its leaves began to appear he poured over them the blood of an ape; when the grapes began to form he watered them with the blood of a lion, and upon the ripe fruit he spilled the blood of a pig. The vine thus nurtured with the blood of these four animals has acquired these properties: the first glass of wine animates the drinker so that his vivacity is great and his colour heightened; in this condition he resembles the peacock. When the fumes of the liquor rise to his head, he becomes as gay and full of antics as an ape. When he has become drunken he rages as the lion, and in the height of this condition he falls and grovels like the pig sprawling out in heavy slumber."

In the *Midrasch Rabboth* it is stated that when Noah was working on his vine plantation he was thus addressed by the Arch-Dæmon :—"I have shared in thy labours, beware that thou dost not trench on my boundary lest I do thee harm." Noah did not heed the warning, but

* *Real Encyclopedie für Bibel in Talmud* (Breslau, 1870), part 1, pp. 1039-1042.

drank to excess, and passed the boundary of the domain of the dæmons, and lay naked in his tent."

In the *Midrasch Bereschit Rabba*, by Dr. Auguste Wünsche, we read that Rabbi Jochanan finding in the Hebrew letters which give the story of the vine, that those spelling the word "woe" occurred fourteen times, warned his people against the use of wine.

Origin of the purple grape.

According to Tabari, an Arabian historian,* Ham, for having laughed at the drunkenness of his father, was cursed by Noah that his skin should become black, as well as all the fruits which were to grow in the land he should inhabit; and thus came the purple grape, which was the white grape before Ham transplanted it.

Summary of the origin and character of Bacchus-worship.

§ 4. Let us also examine the mythological web which both veiled and defined the spiritual needs and religious inclinations of the ancients, and essentially formulated the character and shape of the drink question among them. We know that among the ancient Romans, Bacchus was the God of wine, and that the infamous Bacchanalia, suppressed by the Senate's decree (B.C. 186), were the chief expression of Bacchus-worship among them.

But Bacchus-worship was not confined to Rome, neither did it originate in Rome, nor was the sensual form the only or even the chief observance, as we shall see later on.

In the first periods of historic times, Bacchus-worship was an adoration of all the active forces in nature, especially those of generation. We may therefore be justified in supposing that when certain exciting properties of wine were discovered by the Bacchantes, they attached especial value to it, so that to the sensually inclined the praise and love of wine became identical with Bacchus-worship. Aristophanes, in the fourth century B.C., calls wine the milk of Venus.

Bacchus had, beside his local names, innumerable other names signifying the countless various manifestations and properties in man, beast, and plant, which he was supposed to inspire, create, or enjoy.

The original Bacchus thought to be Noah.

He bore different names, also, in different countries. Several myths designate Noah as the original Bacchus, and of these the myth in India, about Satyavarman, is the

* Died A.D. 922.

most striking. As the ninth chapter of Genesis relates how Noah planted a vineyard, made wine, got drunk, and was in a shameful state discovered by his three sons Shem, Ham, and Japheth; so the East Indian *Purana* (tradition) tells of Satyavarman who, in a disgraceful condition of drunkenness, was seen by his three sons Shema, Chama, and Yapeti. But Satyavarman of India was Adonis in Phœnicia, and this divinity, again (Selden, *De Diis Syr.*, Syntagma 11), was the same as Osiris among the Egyptians, Dionysos or Bakchos in Greece, and Bacchus or Liber in Rome. Exactly how and where Bacchus-worship originated is not known, and the order of its spread is also matter of dispute. But these points, though so interesting, being non-essential to our purpose, we may not linger on them.

Noah said to be Saturn, to whom is attributed the discovery of wine.

Morewood (*op. cit.*) states, according to Bockhart, that Cadmus first brought the worship of Bacchus among the Grecians, and that wine was introduced to them by the Syrians. He also thinks that Noah was the same as Saturn, and Plutarch attributes the discovery of wine to that deity. On the other hand, Alfred Maury, in his *History of the Religions of Ancient Greece* (Paris, 1869), maintains that Greece had its Bacchus-worship independent of the Egyptian Osiris-worship, and that it was when regular communication between the two countries was established, during the Saitic dynasty, that the Greeks first discovered the similarity between their own and the Egyptian Bacchus-worship.

Similarity between Greek and Egyptian Bacchus-worship.

As the ancients had several Bacchuses, so they had also more than one parentage for the god, whose father was in all cases the same, namely Jupiter, but not so the mother. In Egypt the mother of Osiris (the Sun, and later on, the Nile, which fructified the land) was Isis, goddess of the fruitfulness of earth and the source of wisdom, which is granted only to those who "by persistence in lives sober, temperate, and isolated from sensual pleasures, voluptuousness, and passions, aspire to participation in the divine nature."

Bacchus-worship and the serpent.

But the Greeks and Romans attributed their Bacchus to a dual, really a triple motherhood. Two of the three were, however, of essentially the same nature, Semele and Proserpina the ravished daughter of Ceres, whom Jupiter

approached under the guise of a snake, the reptile which plays so important a part in the Bacchus rites (the serpent and the forbidden fruit !).

A golden image of a serpent was placed in the lap of the newly initiated, the satyrs were represented with serpents coiled around their heads, and the serpent was consecrated to Bacchus. In these ceremonies wine was indispensable, the worshippers were drunken, and the infamous character of these orgies are the lasting obloquy of the peoples who tolerated them.*

In the mythologies of India, Egypt, Greece, Rome, etc., the serpent itself was worshipped as the divinity of death, as is seen often in the designs graven on ancient tombs. The serpent was also placed at the head of the graven images of Hecate, the goddess of the kingdom of the dead (Genesis ii. 17), and in all sorcery and necromancy the serpent has been an essential factor.

Another strange symbol of Bacchus are the horns. In Egypt the bull Apis was consecrated to Bacchus; in Phrygia, Zagraeus (Bacchus) was represented with horns. A horned image of him is often seen in the front of public-houses in England.

Eleusinian mysteries.

Drunkenness and sensuality were, however, but one side of the ancient Bacchus-worship; another phase as opposite to it as light is to darkness were the so-called Eleusinian mysteries, especially the "greater mysteries," which were observed in the Attican city of Eleusis on the Eleusinian Bay. According to Strabo, the Eleusinian temple could at one period accommodate from twenty to thirty thousand people at a time. What is known with certainty about the "greater mysteries" of the Eleusinian Bacchus-worship is very limited.

The works of the few writers of antiquity who ventured to treat of these mysteries—such as Melanthius, quoted by Athenæus and by the Scholiast of Aristophanes; Hiceus, spoken of by Clemens of Alexandria; and one or two more—have tracelessly disappeared. All we know is that the Eleusinians worshipped Bacchus as the son of Ceres (in Greece, *Demeter*, the same as *Isis* in Egypt), and that their worship chiefly consisted of contemplations and demonstrations of the unity of God and the immortality

* See Juvenal, vi. 321, and Lactantius, *Just.*, div. 120.

of the soul. From two extraordinary papers on the subject of the Eleusinian Mysteries, contributed by Mr. Henry M. Alden, editor of *Harper's Magazine*, to the *Atlantic Monthly*, during 1859–60, I quote these few passages as revealing more of the elusive and subtle spirit of the theme than any modern writing I am acquainted with, and as not being outdone in this quality by any of the native ancient authors :—"The story of the stolen Proserpina is itself an afterthought, a fable invented to explain the mysteries. The Eleusinia are older than Eleusis—older than Demeter, even the Demeter of Thrace —certainly as old as Isis, who was to Egypt what Demeter was to Greece—the Great Mother of a thousand names, who also had her repeatedly endless sorrow for the loss of Osiris. . . . The worship of this Great Mother is not more wonderful for its antiquity in time than for its prevalence as regards space. To the Hindu she was the Lady Isani. She was the Ceres of Roman mythology, the Cybele of Phrygia and Lydia, and the Disa of the north. According to Tacitus (*Germania*, c. 9) she was worshipped by the ancient Suevi. She was worshipped by the Muscovite, and representations of her are found upon the sacred drums of the Laplanders. She swayed the ancient world from its south-east corner in India to Scandinavia in the north-west; and everywhere she is the 'Mater dolorosa.' And who is it, reader, that in the Christian world struggles for life and power under the name of the Holy Virgin and through the sad features of the Madonna? . . . And what do we read on the tablet of Isis?—'I am all that has been, all that is, all that is to be; and the veil which is over my face no mortal hand has ever raised.' Not to Demeter nor even to Isis do the Eleusinia primarily point, but to the human heart,—'I am the First and the Last—Mother of Gods and men. As deep as my mystery, so deep is my sorrow. For lo! all generations are mine. But the fairest fruit of my holy garden was plucked by my mortal children, since which Apollo among men and Artemis among women have raged with their fearful arrows. My fairest children, whom I have brought forth and nourished in the light, have been stolen by the children of darkness. By the flood they were taken, and I wandered forty days and

forty nights upon the waters ere again I saw the face of the earth.' . . . Life in its central idea is an entire and eternal solitude. Yet each individual nature so repeats, and is itself repeated in, every other, that there is insured the possibility both of a world revelation in the soul and of a self-incarnation in the world; so that every man's life, like Agrippa's mirror, reflects the universe, is made the embodiment of his life—is made to beat with a human pulse. We do all, therefore, Hindu, Egyptian, Greek, or Saxon, claim kinship both with earth and the heavens, with the sense of sorrow we kneel upon the earth, with the sense of hope we look into the heavens."

Haggenmacher, in his able work on the subject published in 1880, says that the mysteries dealt with the symbolic representation of the myth about Demeter and the immortality of the soul.

We find also that such great men of the past as Pindar and Plato in Greece, Cicero, the slave philosopher Epictetus, and the noble and learned Emperor Marcus Aurelius in Rome, were enthusiastic admirers and zealous advocates of these mysteries. They were abolished by Emperor Theodosius the Great (379–397), in the same general decree which extinguished the sacrificial fires on all the yet remaining altars of polytheism.

§ 5. Historic records of the nations of antiquity are replete with proofs that the chief destroyer of individual and national greatness was drink. The early Medes and Persians gave rigorous education to their youth, who were brought up on a regimen of bread, cresses, and water, in order to accustom them early to temperance, and to strengthen their bodies. Nor were the four great Asiatic monarchies of antiquity, Assyria, Babylonia, Media, and Persia, conquered and destroyed by the sword until their earlier characteristics of manliness, patriotism, and morality had been sapped by drunkenness and debauchery.

Assyria and drink.

The vast Assyrian power whose foundation reaches beyond historic record, after incorporating Iran, Syria, Babylonia, Egypt, Asia Minor, etc., was at last subdued by the rebel sober provinces of Media and Babylonia; and that prince of voluptuaries, Sardanapalus, last independent ruler of Assyria, when he saw that all was lost, betook himself to the funeral pyre, together with his women, his

servants, and his treasures. We are told that his motto was—

"Eat, drink, play, and know that thou art mortal; drain present delights, there is no voluptuousness after death."

Media and drink.

Familiar, but always impressive, is the account history gives us of the visit of the young twelve-year-old Cyrus to his grandfather, King Astyages of Media. The little fellow, destined later to overthrow Media and Babylonia, and to found the great Persian monarchy, was so astonished and disgusted at the riotous drunkenness of the Median court, that he refused to touch the wine, a custom expected of him as cupbearer to his grandfather. He could not understand how the people were willing to drink till they had fallen into such a bestial state.

"You seemed," he exclaimed, turning to his grandfather, and referring to a recent banquet—"you seemed to have forgotten yourself, to not know that you were the king, and when you wished to dance you could not stand! My father drinks merely to quench his thirst."

And time brought the days when this Cyrus subjugated Media and deposed his grandfather (B.C. 559). A few years after, when combined against by Babylonia and Lydia, Cyrus was defeated just outside the walls of Babylon. But Nabunahid (Belshazzar) the victor, instead of following up his success, arranged in its celebration that infamous feast in the midst of which the ominous "*Mene, mene, tekel, upharsin!*" was flashed along the wall by the unknown hand, and during this fatuous debauch, Cyrus, re-gathering his remaining forces, stormed the unprepared city, and slew Belshazzar in his cups.

Persia and drink.

Persia,* in its turn becoming weakened and emasculated by wine and the habits it generates, passed under the conquering hand of Alexander the Great,† the same who for

* Persian history attributes the discovery of fermentation to Jemsheed, a monarch who lived very soon after the Flood. Being exceedingly fond of grapes, he on one occasion thought to save some for future eating by packing them away in a jar. Of course, when he next resorted to them, he found in the stead of the luscious fruit, wine. Tradition says that Jemsheed's beautiful cup, carved out of ruby, and filled with "the elixir of life, lies buried under the ruins of Istakhar."

† Alexander's physician, Androcydes, warned him in these words:

a time withstood the corrupting influences of Persian sybaritism, and the intoxications of his own triumphs, but of whose death by intemperance Seneca writes: "Here is this hero, invincible by all the toils of prodigious marches, by all the dangers of sieges and combats, by the most violent extremes of heat and cold, here he lies, conquered by his intemperance, and struck to earth by the fatal cup of Hercules."

It is difficult to imagine more horrible deeds than were done by some of the Persian rulers when under the influence of drink. On the plea of giving his people proof that wine had no effect on his nerves, Cambyses ordered his cup-bearer—the son of his chief officer Prexaspes—to go to the opposite side of the room, and there to stand quietly with his left arm raised over his head. Prexaspes was present, but before he could even imagine what was to happen, Cambyses had taken aim with a bow and arrow and shot the boy through the heart. He then had the heart cut out from the youth's yet trembling body, and held it triumphantly before the wretched father's eyes, exclaiming that he desired that this proof that wine did not harm him should be made known to his subjects; yet it is to be observed that Cambyses (according to Herodotus) confined drinking to himself, his army being allowed only water. This fiend married his own sister, and in a drunken debauch kicked her to death during her pregnancy.

What views about drinking were held in ancient Persia is apparent from such facts as, for example, that preferment in office largely depended on how much a man could drink without losing his reason. Indeed, Cyrus, who fell in a duel with his brother Artaxerxes, had urged, among other reasons why he should be chosen before his brother, that he could drink a greater quantity than Artaxerxes "without being inebriated, or his passions disagreeably excited." And Athenæus (the Greek grammarian from Naukratis in Egypt) mentions that one of the Dariuses desired no greater encomium than that it should be engraved on his

"When you are about to drink wine, O King, remember that you are about to drink the blood of the earth; hemlock is a poison, and wine is a poison to hemlock!"—Pliny, lib. xiv. chap. v. The commentators understand this to mean that wine, being so powerful an agent (a poison to a poison), ought to be dreaded by mankind.

tomb that he could drink a very great quantity of wine without being drunken.*

As the great Asiatic monarchies fell first by wine and then by the sword, so Egypt, the history of whose vast and highly civilized power reaches back over three thousand years before Christ, fell likewise into the slough of drink and licentiousness, and was conquered by the Persian province (B.C. 332). Subsequently, Alexander the Great took it; then Greek culture gradually drove away the Egyptian, and, after the battle of Actium, it became a Roman province till conquered by the Arabs in A.D. 641.

Egypt and drink.

The Egyptians, whose country was famous for its corn, are regarded as the earliest brewers, and it is claimed that they knew how to extract the juice of barley nearly two thousand years before Christ; but when they learned to ferment it, does not appear. They very early used what they called grain wine at their libations (the religious ceremony of pouring wine either upon the ground or on a sacrifice—living or dead—in honour of a deity). Herodotus tells us that beer or wine drawn from barley was the liquor principally used, and he describes the clergy as feasting upon the sacrifices and quaffing the sacred wine.

From about four to three hundred years before Christ, the Egyptians had a number of grain-wine manufactories at Pelusium on the Nile. But the ancient Egyptians knew also how to make intoxicating drinks from fermented juices, such as those of the palm, fig, and pomegranate.

The condition of Egypt, before its invasion and desola-

* *The Classical Journal* for April, 1813, gives this specimen of old Persian poetry. The first is a *ghazal*[1] from *Shefalee*.

"With your liver intoxicated with blood, it is delightful to reel like a flame! intoxicated with blood it is delightful to wallow on the ground! whilst jovial, to plunder the bower like the breeze, to cull the rose, on which the gardener has bestowed his willing care, is delightful. But in a drunken fit, never be thou so weak as to rise up the first to make peace, because to be angry afresh is delightful."

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[1] The *ghazal* is a form of Persian poetry introduced into German literature by Rückert and Platen, and consists in repeating the rhymes of the first two lines in the fourth, sixth, and eighth lines, etc., the intervening lines not rhyming, and the measure being a matter of option.

tion by the Persians, as regards temperance and morality was, as we know, most lamentable. Men and women gloried in drunkenness and shame. The few remnants of sculpture and painting that remain from the art of those days give ample proof of the state of the people at that time. Masters are represented as carried home from their banquets in sottish unconsciousness. The dames are represented struggling with nausea from their too copious bibbing, and hurrying the maids with the necessary bowl. Josephus speaks of them as the most debauched people.

Temperance efforts in Egypt.

Yet great efforts had been made from time to time to save Egypt from this evil. Several of the Pharaohs issued stringent mandates against drunkenness, and the ominous ceremony—apparently not commanded—of placing in the centre of the banquet tables, when the wine was "beginning to tell," a skeleton crowned with a funeral wreath, dates from those days.

Among the many devices to check intemperance, was a law that the friends and relatives of the dead should abstain from all wine and luxuries for a certain time (from forty to seventy days subsequent to the death) according to the rank and station of the departed; the higher the rank or importance the longer was the abstention to be observed, which is significant of the great respect really felt for temperance.

"If," as Morewood so eloquently says of ancient Egypt (*op. cit.*), "a secret glow of veneration arises for a nation so long distinguished in the annals of antiquity for all that was majestic and mighty, whether we consider its almost superhuman structures, its profound erudition, its wonderful inventions, or the splendour, pomp, and glory which surrounded its early inhabitants," how different the feeling which presses on the heart of him who, standing to-day in the shadow of the Sphinx, sees only the lonely Nile and the far-stretching torrid sands, both alike as dumb and vestigeless to him of those nobler realities as are its strong lips and fixed unsleeping eyes!

But, in speaking of antiquity, we generally mean not the Assyrians, Babylonians, Medes, Persians, or even the Egyptians, but the Greeks and Romans. The other great nations, with the exception of the Jews, have left but small

traces in literature, science, and art, in comparison with those of Greece and Rome, who for so many centuries, mutually and antagonistically, but absolutely, ruled the whole civilized world for the time, politically, intellectually, and morally. Notwithstanding which, they exist no more.

Who can point to a living, genuine remnant of either of these nations?

What destroyed them? Is there danger that through the same causes, great civilized powers of our time may in their turn collapse and disappear?

Greece and drink.

In speaking of Greece, thought always reverts to the two contrasting rivals, those republics of Athens and Sparta, so long dominating all the others.

Athens.

In Athens the severe laws of Draco condemned to death any person convicted of being drunk. The wise laws of Solon (*Diog. Laert.* in Solon i.) condemned an archon (the highest public functionary in Athens after the abolition of royalty, B.C. 1068) to a heavy fine for the first time he was intoxicated, and in case of relapse—to death. A citizen seen to enter a drinking shop was dishonoured for ever, and no more was required to cause the banishment of a senator from the Areopagus (high court of Athens).

Sparta.

In martial, brave, but cruel and perfidious Sparta—where domestic affections were crushed out by law, and the common decencies and moralities held in contempt in accordance with the Lycurgan institutions, which among other things enjoined common public baths for both sexes, and placed no restraint on the sexual appetites—they did fear the results of drinking. In fact, it is claimed that Lycurgus himself gave the command that annually the helotes (slaves) of Sparta should be intoxicated, and of the orgies ensuing among them the youth should be made spectators, to infuse in them aversion to drink.

Not only in Athens and Sparta was this rigour shown; Pittacus of Mitylene (island of Lesbos) punished crimes *committed in drunkenness with double penalties.*

But in Greece, as in the great monarchies of the East, drunkenness prevailed against the efforts at restraining it.

Wine culture, after passing from Persia and Syria to Greece and the Archipelago, was brought later on to Italy and Southern France.

Rome and drink.

In the first days of Rome wine was almost unknown. Even as late as the second Samnite war (327–304) the Dictator Papirius vowed a small cup of wine to Jupiter as the most costly gift, if he should be victorious; which he was (309). That is, almost a hundred and fifty years after the foundation of Rome, wine was rarer than gems.

And for centuries after the Samnite wars, though wine was imported in increasing quantities, drinking habits did not become general, until the time of Julius Cæsar, when it began to be cultivated in Italy. During the reigns of Augustus and his immediate successors, wine culture and wine making became a passion among the Romans. During the empire it abounded, and history shows beyond question that enervation, loose morals, corruption, and crime increased among the Romans in almost an exact ratio to the increase of their habits of drinking.

Even the Stoics—those severe philosophers who held that human conduct must be restrained within the exact interpretation of the four cardinal virtues, Prudence, Justice, Temperance, and Fortitude—even they sometimes intoxicated themselves for the "refreshment of their souls." The women were as abandoned to drink and loose-living, and prided themselves on being able to stand as much wine as the men. And most conspicuous in these debaucheries were the Cæsars, and the emperors Caligula, Nero, Vitellius, Domitian, etc. And yet in this very Rome, steeped in drunkenness, licentiousness, and crime, the Vestal Fire was kept inviolate and sacred, and we find, in Tacitus (*Annals*, xv. 36), that even Nero, upon venturing into the temple of Vesta, was "seized with a sudden tremor throughout his body, either from dread of the Deity or in an access of the fear with which the recollection of his ill-deeds ever pursued him;" and the same multitudes who could abandon themselves to all excesses of the Bacchanalia approved the condemnation to living burial of a vestal on mere suspicion of impurity, and could callously look on at the whipping to death (according to law, Livy, xxii. 57) of a vestal's paramour—so little was it understood that national safety depends on character, not on the inviolability of shrines. Have these lessons of the past borne fruit in the present?

Temperance efforts in Rome.

But Rome had not always been such a cauldron of seething vices. According to Dionysius of Halicarnassus,

Romulus promulgated a law which permitted the husband to kill his wife for drinking wine, as for committing adultery. The death penalty for adultery, as we know, was frequently inflicted in the early days of Rome, and Pliny (book xiv. chap. 13) relates that a certain Ignatius Mecennius, having killed his wife for having drunk wine, was acquitted by Romulus; and Fabius Pictor, in his *Annals*, states that a Roman lady was starved to death by her own relations, because she had picked the lock of a chest in which were the keys of a wine-cellar; and Pliny also assures us that Cneius Domitius, a Roman judge, in a like case sentenced the defendant in these lines: "That it seemed she had drunk more wine, without her husband's knowledge, than was needful for the preservation of her health, and that therefore she should lose the benefit of her dowry."

The custom of greeting women by kissing on the mouth is said to date from this time, (!) and to have been adopted in order to discover if they had tasted wine.

That the famous vine-planting edict, which forbade throughout the empire the further culture of the vine, and commanded the destruction of one-half the vines then flourishing in its vast dependencies, was issued by Rome's worst debauchee, the Emperor Domitian, signifies how profound was the dread of the effects of drinking upon the nation's life and prosperity, even as felt by one of its most supine votaries. This edict remained in force for a hundred and eighty years, and then the Emperor Probus abolished it as far as France, Spain, and South-Western Hungary were concerned.

Seneca's description of the results of intemperance in ancient Rome.

The terrible consequences of wine drinking in ancient Rome are memorably described by Nero's famous teacher, the noble Stoic philosopher Seneca, in his 95th Epistle, § 16:—"These excesses result in pallor, quivering of the nerves in the wine-soaked body, and a leanness from indigestion, more pitiful than the emaciation of hunger; uncertain and unsteady gait, distension of the bowels, which are forced to continually take in more than they are constructed to hold or make use of, yellow and blotched complexion, deterioration and rottenness of the fluids of the system, cramping of the hands from hardening of the ligaments, dullness and torpor of the nerves, alternating with tremor. And the indescribable faintness of these

victims, the torments they suffer by reason of disordered sight and hearing, creeping headaches, etc., etc., what language can convey?"

Syracuse. As with Babylon, so with Syracuse—during a drunken debauch in celebration of victory, it was reconquered by the vanquished.

Carthage. Sober Carthage, sinking under drunken and licentious habits, fell a prey to her rival Rome, yet Rome did not learn the lesson.

The Sueves. Julius Cæsar, in his *Commentaries*, wrote of the Sueves —that martial people who filled the heart of Germany, from the Danube to the Baltic—that they prevented even the importation of wine, so convinced were they of its destructiveness to strength and virtue. But these also fell to drink and then to the sword.

The Jews. As to the Jews, all readers of the Old Testament know that—in spite of the patriotism, the marvellous coherence and vitality which makes the race unique among the nations —the kingdoms of Israel and Judah were strangled by the vine; and as to the Mohammedans, usually and justly regarded as the most abstemious of peoples, private drunkenness is terribly prevalent among them nowadays, though perhaps less so in Turkey than in Tunis and other Mohammedan countries.*

The Mohammedans.

* It is well known that the prophet Mohammed rigorously condemned drunkenness, and it is related of him that in the fourth year of the Hegira, while his forces were contending with neighbouring tribes, some of his principal men, betaking themselves to play and drink, quarrelled in the heat of their cups, and raised such broils among his followers as to threaten the overthrow of all his designs, to prevent which mischiefs in the future, he forbade the use of wine, and also all games of hazard, for ever. Both to strengthen and illustrate this commandment, he told the allegory of the two angels, Arut and Marut (Prideaux's *Life of Mahomet*), who were sent from heaven to administer justice in Babylon in her ancient days: to wit, that once a woman, whose affairs had been arranged for her by these angelic judges, invited them to dinner. She placed wine before her guests, and though God had enjoined them not to touch wine, they drank, and then tempted the woman. She pretended to yield to their wishes, but made the conditions that first one of the angels should carry her to heaven, and the other should bring her back again. On coming into the presence of the Almighty, she told Him how she had been tempted, and had saved herself by seeking shelter

Mohammed's drink allegory.

Thus the history of the past offers a vast array of concurrent testimony that as long as drink was unknown to a nation, it remained comparatively strong and prosperous; and that in the measure that nations have succumbed to drink, they have lost their independence, and passed in the most terrible harlotry from master to master, until given over by the gangrene of decay to oblivion.

with Him. In reward for her chastity, the Almighty changed her into the morning-star, and the angels were given their choice of being punished for their sin at that time or in the future. They chose immediate punishment, and were suspended by the feet with an iron chain in a pit near Babylon, where they are doomed to remain until the day of judgment. For which reasons God forbade His servants ever to use wine. And in the Koran we read, "Wine and gambling are abominable inventions of Satan. Beware of forgetting God, because the demon would employ wine and gambling to fire in us the flame of impurity, and turn us away from adoration and prayer."

Some of the sultans and caliphs took extraordinary measures to prevent drunkenness. Soliman I. ordered that melted lead should be poured down the throats of drinkers.

CHAPTER II.

HISTORY OF THE DISCOVERY OF DISTILLATION.

§ 6. ALTHOUGH mediæval history gives us many both interesting and instructive facts as to the effects of drink and the efforts made to combat the evil during the dark and early Middle Ages, its record in the main is so similar to that of antiquity—with the exception that condemnation of the habit became more general, yet weaker, and indulgence more universal and excessive—that I need not here dwell upon it,* but proceed at once to the history of the discovery of distillation.

Reasons for our ignorance regarding the discovery of distillation.

Owing to two acts of shameful barbarity, we are left in nearly the same uncertainty regarding the discovery of distillation, as by chance, we are in regard to the discovery of the physical fact of fermentation. All the ancient Egyptian works on alchemy, some of which in all probability would have solved the question still baffling us, as to when, where, how, and by whom the art of spirit distillation was first discovered, were ruthlessly destroyed by the Roman Emperor Diocletian in his superstitious fear lest the Egyptians should, by converting all available metals into gold, secure the means to regain their independence. And three hundred years later, when Egypt was taken from the Romans by Caliph Omar's chief commander Amru, that barbarian destroyed the famous Ptolemeian Library at Alexandria, reputed to have numbered 700,000 volumes, explaining his irreparable villainy on the silly pretext that

Barbarities of Diocletian and Amru.

* Those who wish to pursue inquiry in this direction will find abundant information in Morewood's *Inebriating Liquors* (1838); Rev. Father Bridgett's *Discipline of Drink* (1876); Mr. Samuelson's *History of Drink* (1878); and in the works to which these authors refer.

if the contents of these books agreed with the Koran they were useless, if against it they were pernicious, and, therefore, in either case, their destruction was proper.

Reasons why its discovery was kept secret.

That such a secret as the art of distillation should be confined to recondite works, and not spread, but indeed be guarded from general knowledge, is not very surprising when the position of the discoverer (or participant in the discovery) is considered. He might at first have imagined that he had at last found that life elixir which in the dark ages seems to have been the one ray of hope to man; and though experiment must soon have disproved this theory, he was still, unless sheltered by exceptionally high and favoured station, in danger of his life from the machinations of public and private avarice; and, again, subject to total loss of the special advantages of his knowledge, should it be widely disseminated.

Distillation, generally speaking, may be said to have preceded the knowledge of fermented drinks, because whoever first condensed (and any one might have done so) some of the steam rising from boiling water, would be the first distiller, and in a like sense he who should be the first to (for any reason) boil fermented liquor, and condense some of its vapours on a cool surface, would, whether he knew it or not, be the first spirit distiller.

But so long as such facts were accidents—that is, not results of man's understanding or intention, but occurring without attracting observation to the processes—they were practically not discoveries.

Definitions of distillation.

Distillation * is "the volatilization of a liquid in a closed vessel by heat, and its subsequent condensation in a separate vessel by cold." † But the ancients applied the term to most operations of transformation, purification, and analysis. Some solids as well as liquids may be distilled (but not all of them); for example, iodine, arsenic, chlorides of mercury, etc.

Spirit.

Spirit is a term which, though specially applied to alcohol, is applicable to any liquid produced by distillation.

Spirit distillation.

Spirit distillation is the operation of extracting spirit from a substance by evaporation and condensation.

* Latin, *de* and *stillare;* Italian, *distillare;* French, *distiller;* Spanish, *destilar*—to flow or fall in drops.

† Webster's *Dictionary*.

Spirit distillation merely sifts out the alcohol. Alcohol boils at 173° Fahr., while water reaches its boiling point at a temperature of 212° Fahr. Consequently cider or grape juice, or any other liquid containing sugar when subjected to heat, after fermentation, boils out the alcohol first, which, in the form of steam, passes off and can be condensed in a separate vessel. The point in this process, therefore, is to cease heating as soon as the temperature rises much above the boiling point of alcohol.

Rectification is the re-distillation of what has already been distilled. Its object is to separate more completely the water which has been vaporized with the alcohol and some impurities.

Discovery of spirit distillation attributed to the Far East.

§ 7. The original discovery of spirit distillation * is very naturally sought for in those countries of antiquity distinguished for the greatest civilization and culture, and writers on the subject are tolerably unanimous in pointing to the Far East† and, most of them, to China.‡ "Humboldt says that the process used by us in making sugar was brought from Oriental Asia, and that even the cylinders placed horizontally and put in motion by a mill with cauldrons and purifying apparatus, such as are to be seen

China.

* "There runs an old German legend, prevalent to this day in the duchy of Saxe-Meiningen, which details circumstantially his Satanic Majesty's claim to this important invention. The monarch of the infernal regions, so the story goes, was once fairly outwitted by a Steinbach man, who tricked the great enemy of mankind into entering an old beech-tree, where he found himself trapped without power of escape, and did not regain his freedom till the tree was cut down. As soon as he was liberated, Old Nick rushed frantically to his dominions to see how things had fared during his absence. To his dismay he found hell empty. Casting about him for some means of refilling Pandemonium with lost souls, he hit upon the idea of inventing brandy. Delighted with this happy thought, he hurried at once to the city of Nordhausen, and set up a distillery there, which was so successful that all the rich men of the place came to him to learn this new art of brandy-making, and in due time, abandoning their other business, became distillers themselves. 'And thus,' says the old chronicler of the legend, 'it happened that to the present day there is no other place in the world where there is so much of brandy burned as at Nordhausen.'"—*Licensed Victuallers' Gazette*, July, 1880.

† The *Asiatic Journal* of 1840 cites an old Hindu manuscript, according to which a distilled liquor resembling brandy, called *Kea-sum*, was known in India from most ancient times.

‡ Samuel Morewood.

in the West Indies, are purely of Chinese origin, and were in use at a period long anterior to the visit of any European to that country. . . . In China, a country which has preserved its civil polity for so many thousand years, the art of distillation was known far beyond the date of any of its authentic records. . . . That the Chinese were versed in all the secrets of alchemy, or, rather, in that branch of it which had for its object a universal *panacea*, long before this fancy engaged the speculations of European practitioners, there is abundant proof, since some of their empirics have from an early period boasted of a specific among their drugs which insures an immortality like that conferred on Godwin's 'St. Leon.' The search after this *elixir vitæ* originated, it appears, among the disciples of the philosopher Lao-kiun, who flourished six hundred years before Christ. Not content with the tranquillity of mind which that teacher of wisdom endeavoured to inculcate, and considering death as too great a barrier to its attainment, they betook themselves to chemistry, and after the labour of ages in a vain endeavour to prevent the dissolution of our species, and after the destruction of three of their emperors, who fell victims to the immortalizing draught, they, like the alchemists of Europe, ended their researches under the pretence of discoveries which were never made.

Reasons cited for believing the Chinese to have been the original discoverers of distillation, while seeking the *elixir vitæ*.

"The Emperor Vu-Ti, who reigned in the year 177 B.C., when about to put one of his ministers to death for drinking a cup of this liquor which had been prepared for himself, was convinced of his weakness and folly by the following wise and sensible remonstrance of his minister:—

"'If this drink, sire, hath made me immortal, how can you put me to death? But if you can, how does such a frivolous theft deserve it?'" *

Dr. Baer, of Berlin, in his *Alcoholismus* (1878), says that "*Santschu*, a spirit distilled from various grains in China, but especially from rice, has been a common drink in China and Japan for several hundred years."

That the Arabs knew anything of distillation previous to their intercourse with the Chinese Empire (in A.D. 715) is contested.

* Du Halde, *Annals of the Monarchs*, vol. i. p. 177.

Dr. Magnus Huss, in his excellent work *Alcoholismus* (Stockholm, 1849-1851), says that "the art of distillation was first discovered in Arabia, but as regards arrack at least, the Chinese and Indians seem to have been their teachers."

Distillation in Arabia.

But there is ample reason for supposing that spirit distillation was practically known in Arabia long before the time generally accepted as the earliest. There seems little doubt that the Geber (Abou-Moussah Diafar-el-Soli) knew the process of distillation. According to Leo Africanus,* Geber lived in the seventh century, according to others in the eighth. He was called Prince because of his great learning. Several of his works in Arabic, and one English translation, are to be found in the British Museum. In his *Liber Investigationis Magisterii*, Geber himself describes distillation and redistillation, and proves that he understood the processes and the value of the retort (vessel in which substances are subjected to distillation or decomposition by heat). "Distillation is the raising of aqueous vapour in any vessel in which it is placed. There are various modes of distillation. Sometimes it is performed by means of fire, sometimes without it. By means of fire the vapour either ascends into a vessel or descends, as when oil is extracted from vegetables. . . . When we distil oil by means of water we obtain fair and clean oil. . . . By means of water, then, we must proceed with every vegetable, and things of the same nature, to ascertain their elementary parts. . . . If not pure at first, put it back until it becomes sufficiently pure. . . . N.B.—At first it will send over only the water with which it was moistened, then the liquor to be distilled." †

Geber.

Whether Geber knew about alcoholic distillation is not distinctly stated. That, however, he or some disciple of his probably did so, we are led by a variety of circumstances to infer, and Morewood (*op. cit.*) quotes the saying that "Al-Mokanna, the veiled prophet, whose life and actions are so beautifully detailed by Moore in his *Lalla Rookh*, when likely to be taken by the troops under the command of Almohdis' general, in the year Hegira 163, or 980 of

Al-Mokanna's death.

* *Hist. Crit. Philosophiæ*, vol. i. p. 136.

† Cited from Geber by Samuel Morewood, in his *History of Inebriating Liquors*, Dublin, 1838.

our era, to avoid falling into the hands of his enemies, after poisoning his whole family and followers, threw himself into a vessel of aquafortis."

Rhazes, the Moorish physician.

§ 8. As regards Europe, it appears certain that Rhazes (Mahommed Aboubekr ibn Zakaria el Rhazi, 850-923), the celebrated Moorish physician, called the phœnix of his age on account of his vast learning, practised spirit distillation. Dr. J. Friend, in his *History of Physic* (London, 1726, vol. i.), says, "As to distillation, M. Le Clerc fixes the epoch of it in the time of Avicenna" (a Moorish physician who died about 1036), "who, as he supposes, first applied this sort of knowledge in the way of medicine; . . . if it be, as perhaps it may be . . . derived from the Arabians, the honour of the invention ought rather to be restored to Rhazes." Hoefer, in his great work, *History of Chemistry*, says positively that Rhazes knew how to distil spirit from grain, but for some reason his discovery did not become a matter of general knowledge.

Albucassis, a Moorish physician.

Two hundred years later another distinguished Moorish physician and chemist, Albucassis, or Aboul Casim (Chalaf Ben Abbas el-Zahravi, died A.D. 1106), is claimed to have discovered the art of distillation, and in his case at least there are positive proofs. The Arab historian, Wüstenfeld, in his *History of Arabian Physicians and Naturalists* (1840), demonstrates with documents that Albucassis knew how to make brandy, which disposes of the erroneous but familiar assertion—resting on the unsupported statement of Anderson in his *History of Commerce*—that distillation was discovered so late in the twelfth century as 1150. And yet it was first in the days of Raimundus Lullus (1234-1315) and Arnoldus Villa-Novus (1238-1314) that the knowledge of distillation began to be spread.

Raimundus Lullus. Arnoldus Villa-Novus.

Raimundus Lullus, born on the Spanish island Majorca, was first a theologian of eminent merits, but falling in love with a charming girl who was afflicted with cancer, he gallantly attacked physic and chemistry in the hope of learning how she might be cured, and his studies in chemistry were so thorough that he afterwards became one of the most famous of alchemists. He improved upon the crude mode of spirit distillation by using carbonate of potassium for the elimination of water.*

* *Ars magna Lulli*, or "Lullus's great art," was an ingenious

Of Arnoldus Villa-Novus, Professor of Medicine at Montpelier, France, Dr. Thomson (*System of Chemistry*, vol. ii. 1817) says, "He was the first to form tinctures and introduce them into medicine;" and citing from Crell's *Annals* (1796), Dr. Thomson adds, "He is said also to have been the first who obtained the oil of turpentine." He is chiefly known for the zeal with which he advocated the use of alcohol, being as identified with its spread as Friar Hernandez with that of tobacco, and as Peter the Hermit with the recovery of the Holy Grave.

Reasons for the alchemists' belief in alcohol.

§ 9. When we consider that the alchemists—whose philosophy, founded by Hermes Tresmegistus, was based on Aristotle's doctrine of four elementary substances of the universe, air, water, fire, and earth—had been constantly labouring for hundreds of years, by means of various combinations, to extract from these elements the universal essence of life, is it wonderful that on obtaining this mysterious spirituous fluid, comprising ingredients of all these elements, yet baffling their efforts at analysis, they should at once cry out that at last was discovered the philosopher's stone, the fifth element, the quintessence, the elixir of life?

The Adepts (those credited with having found the philosopher's stone, and therefore perfect in alchemic art), judging from the burning sensation it produced, and the fact that it is obtained only by the well-managed and careful application of heat, believed that spirit contained the principles of fire.*

Is it wonderful that when they found out their terrible mistake, they were exceedingly loath to acknowledge it, the belief of the masses being the only plank for their otherwise absolutely lost reputation?

Reasons for the credulity of the masses.

Is it strange that the masses of the nations who had been for centuries kept it feverish expectancy of the great

attempt at systematic arrangement of the ideas necessary in general knowledge and ordinary communication, letters to be used as signifying the fundamental ideas, and mathematical figures to indicate their relations. Going at last as a missionary to Mauritania (north-west coast of Africa), he was stoned to death at the age of eighty, by the natives.

* The North American Indians seem by natural instinct to have reached a similar conclusion in their simple effective appellation—fire-water.

discovery, should, on hearing the "Io triomphe!" of their wisest leaders, make the eager chorus of that cry and clamour for the poisoning draught which they believed to be the "Water of life"?

Various names for alcohol.

§ 10. When first discovered, the distilled spirit was known by a variety of names, such as *aqua ardens*, *aqua-fortis* (now applied only to nitric acid), *vinum ardens*, *vinum adustum* (burnt), *spiritus ardens*, etc. Arnoldus Villa-Novus called it *aqua-vitæ* or *aqua-vini*. Raimundus Lullus often called it *aqua ardens* and *aqua vitæ ardens*. It was also called *mercurius vegetabilis*, because bodily substances capable of being evaporated through circulating heat were termed *mercurial*, as it is by means of intense heat that mercury in the form of fumes is expelled from metallic minerals. "This name, however," says H. Kopp, in his *History of Chemistry* (Braunschweig, 1847), "came into disuse in the sixteenth century, and from that time forth the term alcohol became more general."

Derivations of the word alcohol.

In the word alcohol the Arabic article *al* is prefixed, as in the word *al*-chemy, to denote *the* superlative degree of the cohol, or in Arabic, *kohl*; in Chaldaic, *cohal*; in Hebrew, *kaal*; which means fine, that is, exceedingly fine and subtle. This word was used in Arabia as the name of an almost ethereally fine powder with which the Eastern dames were wont to tinge their eyebrows and eyelashes; hence because this fluid was found in Arabia, and was among fluids as fine and volatile as this cosmetic among powders, Europeans gave to it the same name.*

According to Walter Johnson, it is founded upon the Eastern superstition of the earth being infested with wicked spirits, and that when the first effect of this newly discovered drug was seen upon men, the Arabians imagined the persons to be possessed of a devil, which had either assumed the form of the liquid, or entered the body along with it, in which case they would in fright exclaim, "*Al ghole, Al ghole*," the evil ghost or spirit.† And even when this notion was put aside, the vast amount of mischief

* Rev. Dr. J. Guthrie, in his *Temperance Physiology* (Glasgow, 1877), thinks the word alcohol is "probably derived from the Arabic *kahala*, equivalent to the Hebrew *cachal*, to paint."

† Webster gives the word Algol (Arabic *al ghûl*), destruction, calamity. "O thou invisible spirit of wine, if thou hast no name to be known by, let us call thee *Devil!*"—Cassio in *Othello*, Act ii. sc. 3.

which the liquid still wrought amongst mankind caused the retention of the name "Al ghole," which in course of time has been corrupted to alcohol.

"Kopp thinks," says Dr. Baer (*op. cit.*), "that the word came from the Arabic technique, and meant *powder* and *to pulverize*, and that the spirit drawn over the carbonate of potassium to free it from water, was first called *spiritus alcalisatus* (alkali meaning salt), and thereafter by transposition *spiritus* alcol*isatus*, which term went into *alcool spiritus vini*. So, for example, does Libavius* put together *vini alcool* and *vinum alcalisatum*.

Says Dr. Huss (*op. cit.*), "When we remember that just at that period the medical science was at its lowest ebb, the masses placing their trust especially in arcana and universal remedies, we find it quite natural that a remedy so generally praised and so agreeable to the taste should become a household article, and from a medicinal become a dietetic necessity,—at first on the pretext of its antidotal and strength-giving properties, but soon also on account of its intoxicating nature,—in cot as well as castle. And with such rapidity and avidity did this abuse spread, that by the middle of the seventeenth century, its use was common among all classes, and chemistry was required to find new means of production in order to satisfy the cravings for drink. And this was found in the distillation of all kinds of grain and fruit, and lastly potatoes."

The spread of alcohol.

* Libavius, who died in 1616, wrote the first chemical text-book, called *Alchemia*.

CHAPTER III.

PRELIMINARIES TO THE STUDY OF MODERN DRINKING.

§ 11. Thus far, we have taken a brief survey of the drinking customs among the ancients, of the effects of the habits and the notions then prevalent; and have touched on the discovery of distillation, and the spread of the use of alcohol as a life-elixir, as a medicine, and as a beverage.

But before dealing with the effects of alcohol on man, since distilled as well as fermented drinks became common in Europe, it will be necessary to say something about chemistry and physiology in order to be intelligible to the great masses who have so little time to keep abreast with the progress of scientific knowledge, but who use their narrow opportunities with an eagerness and energy deserving far more respect and attention than they receive.

That power of ancient thought over modern investigation, of which we have spoken, is practically illustrated by the history of chemistry.* The *Terminology* of the Greek philosopher Aristotle, for example—arranging and defining technical terms—is not yet wholly displaced, and his general theories still underlie modern realism. A writer on almost every subject, Aristotle wrote also on plants and animals, and thus really originated the sciences of botany and physiology; and though these works are now regarded as among his weakest efforts, and notwithstanding the patent errors in them, they were, owing to

* *Chemistry*, that branch of science which treats of the composition, decomposition, and changes of substances; *chemist*, a person versed in chemistry; *chemically*, according to the natural laws of chemistry; *chemicals*, substances producing chemical effects; *molecule*, an indivisible compound of matter; *atom*, indivisible ultimate of matter.

the weight of his great name, paramount over all other authorities for two thousand years, other investigations being fenced within the lines he had drawn.

The discovery of chemical elements, nitrogen and oxygen.

It was by the demonstration of the famous Irish philosopher and chemist, R. Boyle (1627–1691), of the existence of chemical elements, that Aristotle's "four elements" theory was finally and definitely disproved. Two of the chief elements in all life-combinations, nitrogen and oxygen, were not discovered, however, till 1772 and 1774 respectively, the former by Rutherford and the latter by Priestley and Scheele. But Lavoisier was the first to use these discoveries in laying the foundation of a philosophical science.

Lavoisier's discovery of the basis of oxidation.

From Boyle's time and until the time of Antoine Laurent Lavoisier (1743–1794) it was supposed that the more complex compounds in the animal and vegetable worlds were peculiar, that is, foreign to the mineral or inorganic, and were termed organic compounds because they are highly complex substances which constitute organic bodies, to distinguish them from the substances composing the mineral creation, which were termed inorganic compounds. He dispelled this notion, and showed that just as oxygen, by combustion of carbon, forms carbonic acid, and, in combination with hydrogen, water in external nature; so the oxygen in the inhaled air produces corresponding changes in the carbon and hydrogen it finds in the animal organism. While engaged in experiments, which he hoped might change the faint ray into the broad light of day, he was seized and brought before Danton, who, when Lavoisier begged for only fourteen days more in which to complete his experiments that the results might be saved to mankind, brutally exclaimed that France wanted neither scholars nor chemists, and hurried him to the guillotine.*

* "The man is thought a knave or fool
Or bigot plotting crime,
Who, for the advancement of his kind,
Is wiser than his time.
For him the hemlock shall distill;
For him the axe be bared;
For him the gibbet shall be built;
For him the stake prepared,

Lavoisier had lived, however, to found the chemico-physiological science, indicating the intimacy and interdependence existing between all parts of the physical universe, and in this pointing out to us the vast scope of scientific physiology. But immediately upon his death his theories were scouted as the dreams of a visionary, and even so late as 1835 the famous German physiologist Joannes Müller, in his *Handbook of Physiology*, ridiculed them, saying that the theory of water formation from hydrogen was invented to support that of combustion, but afterwards founded his brilliant chemico-physiological school on the basis laid by Lavoisier.*

The foundation of scientific physiology laid in 1850, in the cell discovery.

It was first by the establishment through Schwann—one of Müller's most competent disciples—and Von Mohl, of the theory of the cell, termed by Professor Huxley the "basis of life" (1850–51), that a stable foundation for scientific physiology was laid; and the probable truth of the cell basis of life has been demonstrated by the vast structure already reared on that slender beginning.

Thus physiology, from being regarded merely as the science of the organs and their functions in animals and plants, has become what the name indicates (physiology —Greek, *physis*, nature, and *logos*, discourse) the science of nature, though its investigations of the inorganic world, the plants, and even of the animals, are daily becoming more experimental in order to obtain clues for solving some of the manifold mysteries of the human organism.

The establishment of organic scientific physiology in 1855.

From about 1855 dates the scientific researches in organic† physiology, and chemico-physiological science is therefore not quite thirty years old. In that time it has

---

Him shall the scorn and wrath of men
Pursue with deadly aim;
And malice, envy, spite, and lies
Shall desecrate his name.
But truth shall conquer at the last;
For round and round we run,
And ever the right comes uppermost
And ever is justice done."

CHARLES MACKAY.

* With Morveau, Lavoisier formed the modern chemical nomenclature.

† The term *organic* is now applied simply to the compounds of carbon, irrespective of their complexity (Baker's *Physiology*).

made tremendous progress, but has not yet solved all the mysteries of physical life, nor can it be fairly expected that it should have done so within such a period, though many seem to have expected it.

How alcohol became a prominent subject for chemical investigation.

§ 12. Alcohol has played a very prominent part in chemical researches from the first, and for several reasons. In the experiments made with it, when the demand became greater than could be supplied by the original methods, it was soon found that it possessed marked and highly valuable properties for chemical purposes, *e.g.* the power of solving—with some notable exceptions, as we shall find later on—most chemical substances, and of mixing in almost any proportions with most fluids.

Then the demand made by both drinkers and abstainers, and more and more imperatively made, for information as to the exact effects of drink on the human system, has further stimulated the scientific study of alcohol, so that researches in this direction have been disproportionately greater than those referring to other chemical compounds.

Discovery of ethyl, methyl, and amyl alcohols.

Until 1828 it was supposed that there was only one kind of alcohol (viz. ethyl-alcohol—the name being derived from the first syllable in the Greek word *aither*, ether, and another Greek word, *hyla*, wood, hence wood-ether—which is the name for the spirit of wine), but in that year Dumas and Peligot proved that the distilled spirit of wood—known in trade as methylated (or methyl-alcohol, from Greek, *meta*, with, and *hyla*, wood, hence wood-spirit) spirit, discovered by Taylor—was an alcohol. In 1839 the spirit extracted from the starch of potato was found to contain amyl very largely, and was called *amyl*-alcohol, from the Greek word *amylon*, meaning fine meal or starch.

The great number of groups and varieties of alcohols.

Alcohols have since been discovered by the hundred, necessitating elaborate systematizations of the various series in groups and divisions.

Of all these series and groups of alcohols we are chiefly, if not exclusively, concerned with the first or fatty series—so called because they were looked upon as productive of fat. Of these, only two, ethyl and amyl, require extensive treatment, though five of these groups are generally found together in all alcohols, viz. :—

Methyl,	or, according to Gerhardt, in Greek numerals,			*protyl* or 1*st*.
Ethyl,	,,	,,	,,	*deutyl* or 2*nd*.
Propyl,	,,	,,	,,	*trityl* or 3*rd*.
Butyl,	,,	,,	,,	*tetryl* or 4*th*.
Amyl,	,,	,,	,,	*pentyl* or 5*th*.

To show the reader how complex even this series is, I may mention that each of these five groups contains several kinds, and the number is constantly increasing. As an example, Basset, the French chemist, in his great work on Distillation, published sixteen years ago, mentions :—

79	kinds of	methyl.
17	,,	butyl.
15	,,	propyl.
9	,,	amyl.
7	,,	ethyl.

The elements of alcohol.

All alcohols * are composed of three elements, viz. oxygen, hydrogen, and carbon.

Oxygen.

Oxygen (Greek, *oxys*, sharp, and *genein*, to generate, so called because originally supposed to form an essential part of acids) is a gaseous element, without positive taste, colour, or smell, but possessing strong chemical attraction, and forming about one-sixth part of common air. Its slow combination with other elements results in oxidation, and its sudden combination in combustion.

Hydrogen.

Hydrogen (Greek, *hydoor*, water, and *genein*, to generate), the lightest of all known gaseous elements, is found in small but variable proportion in the air. Its increase produces rain, and it forms about one-ninth part of water. It is colourless, highly inflammable, and forms an essential part of almost all organic bodies.

Carbon.

Carbon is a non-gaseous, non-metallic element. It forms the chief element in charcoal, enters largely into mineral coals, and in its pure crystallized state forms the diamond. It is combustible, and predominates in all organic compounds. In its chemical properties it differs from other elements in this respect, that it is capable of

* "Alcohol is the collective name of a class of organic unions which in their characteristics and modes of formation stand close to the ordinary ethyl-alcohol. They are all neutral, but unite, when freed from the watery elements, with acids, making compound ethers, from which they can again be restored by the addition of the elements of water."—Brockhaus' *Conversation-Lexicon*, vol. i. (1884) Ed. 13, now in process of publication.

uniting with hydrogen in various definite proportions, thus forming the vast variety of hydro-carbons, and when also combined with oxygen giving rise to the carbo-hydrates which are found throughout the vast plant world.

The natural sources of alcohols.

The chief substance among the carbo-hydrates, from which alcohol is derived, is sugar—a most varied and vastly extended substance not confined to the plant world, but spreading throughout the whole dominion of life. Scientists group sugars according to their different views. The simplest arrangement, I find, is one of three groups :—

First group.—*Glucose* (Greek, *glykos*, sweet), which comprises principally grape sugar, fruit sugar, and inosite —a sweet found in many plants, but chiefly belonging to the muscles of the heart and tissues of the lungs of the higher animals.

Second group.—The true sugars, viz., cane-sugar, *lactose* (Latin, *lac*, milk) or milk sugar.

The third group mostly contains *cellulose*, or the chief substance for cell formation, *i.e.* starch, dextrine or starch-gum, and gluten. From all these various sugars alcohol can be obtained; by direct fermentation from the *glucose*, and by the conversion of the second and third groups into glucose, and then into alcohol. Alcohol has also been obtained, though in small amounts only, by synthesis, or chemical composition.

The meaning and processes of fermentation.

Fermentation is the general name applied to the first processes of nature's taking to pieces some organic compound or body, either for further construction of organic life-supply; or for dissolution into elements—the principle of life having fled.

Fermentation (Latin, *fervere*, to boil) was a term originally used concerning all phenomena where a liquid or pasty mass was seen to lift or bubble, discharging gas without an apparent cause. Chemically it means a reaction in which an organic compound under the influence of a ferment changes in a determined sense at the expense of the substance.

The nature, action, and influence of ferments on life.

It is now known that all fermentation is the work of so-called micro-organisms,* or active organisms so small

* Micro-organisms called bacteria at once set feeding on the dead tissues; but if excluded, or even through chemical processes stopped in their enterprises, fermentation ceases.

that, as Professor Flügge, of Göttingen, states (in his work on *Ferments and Micro-parasites*, published at Leipsic, July, 1883) :—"They stand on the border of invisibility, even to the eye armed with the best optical means, and yet, with their undreamt-of spread and deeply invading activity, play a most important *rôle* in the household of nature and the existence of man. They cause the destruction of lifeless organic substances, occasion the oxidation of otherwise non-oxidable stuffs. They provide the plants continually with their chlorophyl" (Greek, *klooros*, light green; *phyllon*, a leaf)—"the green colouring matter of the leaves and stalks of plants—excite the most diverse fermentations, and to us they are an indispensable means of preparing our ordinary foods. . . . On the other hand, they live as parasites on our cultivated plants, and bring about their degeneration and death. They produce at times the severest diseases, both in lower and higher animals, and at times threaten man with murderous epidemics. . . . In air, in earth, water, everywhere we find these same little organisms; we recognize them in our nearest surroundings, in the home, in the food, as permanent companions, and incidentally as formidable enemies. Most of these important little lives are plants of very elementary structure and the simplest procreative processes, but of extraordinary powers of multiplication. A few of them belong to the lowest animals."

Date of the first discovery of the real nature of alcoholic ferments.

§ 13. As we have seen, alcoholic fermentation, though known from prehistoric times, was not understood. Later it was observed as limited to sweet substances, but the secret of the fermentation processes had remained unsolved till our day. The real nature of the alcoholic ferments or yeasts as living fungi, was first discovered in 1835 by Cagniard Latour, and in 1837 the already mentioned German, Schwann, proved that the atmosphere is always charged with ferments. Since then microscopic science, headed by such men as Kölliker, Pasteur, Liebig, Nägeli, and others, has succeeded in revealing a universe of microscopic plants and animals.

Generation of yeast fungi.

The yeast plant, a very low form of vegetable life, consists of simple vesicular cells destitute of chlorophyl, which sprout at one or both ends of the mother-cell, fill with part of its contents, assume its form and size, and

in turn give birth in rapid succession to new cells; the whole forming a beaded network of indefinite form.

By alcholic fermentation, glucose is resolved into from 30 to 31 per cent. alcohol, 50 per cent. carbonic-acid gas,* and a small portion of other compounds, the chief of them being from 2·5 to 5·6 per cent. glycerine, and 0·4 to 0·7 succinic acid, etc.

The lethal nature of alcoholic fermentation.

All fermentations can be divided into two groups: the one for maintaining life, and the other for producing death and dissolution into original elements. Alcoholic fermentation belongs to the latter group, because, as far as known, alcohol can never be obtained from any living organism, substance, or chemic compounds containing life —death and decay being necessary pre-conditions for its natural production. And as alcoholic fermentation is a saccharine fermentation, and as saccharine fluids are inherent in all organic compounds—saccharine ferments being spontaneously present wherever saccharine fluids exist—and as all organic compounds are subject to the law of death and decay, it follows that all organic substances, in a certain proportion to their saccharine contents, may be productive of alcohol, *i.e.* be alcoholizable. And these facts have been practically demonstrated in the various domains of nature by recent chemical experiments, though the alcohol discovered has been small in quantity, owing probably to its volatility and proneness to oxidation and further dissolution.

Saccharine fermentation explains the traces of alcohol found in water, air, and earth.

Thus, for example, we are told by the French scientist Muntz, that he had found traces of alcohol in water, and that he had reason to believe that the carburetted body indicated by Boussingault and De Saussure as being

* Carbonic-acid gas forms 0·03 to 0·06 per cent. of the atmosphere. It streams forth from active volcanoes, as well as from many fissures in the earth, *e.g.* the Dog Cave at Naples, the vapour caves at Pyrmont, Vichy, Hauterive, the Death Valley in Java, etc. Carbonic-acid gas is generally formed in plant or animal decompositions; for instance, wood, tallow, oil, are changed by atmospheric combustion into carbonic acid and water. Where organic substances are richly strewn in the ground there is also much carbonic acid, hence the presence of so much of this deadly gas in coal mines, etc. Animals expirate carbonic acid gas, because through oxidation, organic substances are resolved into carbonic acid gas and water.

present in the atmosphere was alcohol. And there is every reason to believe this to be a fact, there being always in the air, as in the water, saccharine compounds. So also, when we are told that there is alcohol in the soil, we have reason to credit it. We know the soil consists chiefly of the material residue of organic and inorganic decomposition, and of course in earth, as in air and water, alcohol is a product of the decompositions of saccharine particles.

May not the carbonic-acid gas, or deadly vapour found especially in coal mines, be a residue in no small degree of the carbonic-acid gas formed in far distant ages by the alcoholic fermentation of the organic matter which has been through succeeding ages turned into coal? And may it not be that the alcohol obtained through dry distillation—*i.e.* through heat and exclusion of air—is to some extent only the released product of natural ancient fermentations? *

Alcohol in bread.

In the preparation of bread the yeast changes the starch into dextrine or grape sugar. In the further fermentation the grape sugar changes about 2 per cent. of the flour into carbonic acid and alcohol; the carbonic-acid gas causes the sponginess of the dough, the alcohol in the baking evaporates. Bread kept for some days in a warm room through the action of spontaneous ferment re-acquires alcohol from, according to Bolas, 0·12 to 0·32 per cent., and if left longer it is soured by the formation of acetic acid into sour bread.†

* "ALCOHOL FROM SMOKE.—The latest instance of the utilization of waste products is that effected at Elk Rapids, Michigan, with the gaseous matter given forth by a blast furnace in which are manufactured fifty tons of charcoal iron a day. In the case to which we refer, the vast amount of smoke from the pits, formerly lost in the air, is now turned to account by being driven by suction or draught into stills surrounded by cold water, the results of the condensation being—first, acetate of lime; second, methyl-alcohol; third, tar; the fourth part produces gas, which is consumed under the boilers. Each cord of wood produces 29,000 cubic feet of smoke, 2,900,000 feet of smoke handled in the twenty-four hours producing 12,000 lbs. of acetate of lime, 200 gallons of alcohol, and 25 lbs. of tar."—*Louisville Medical News*, March 17, 1883.

† "Some New York bakers are, it appears, exercising their minds with the reflection that about one thousand gallons of alcohol are daily wasted in the ovens of the Empire City, and they have

Alcohol in living organisms, plants, and animals.

But alcohol has also been detected in the wastes of living organisms. Gutzeit claims to have found ethyl and methyl alcohols mixed with butyric and acetic ethers in growing plants—parsnips, and in *Anthriscus cerefolium* and *Heracleum giganteum* and other plants.

Alcohol as a purely natural product is not confined to the plant world. According to attested results of experiments by Béchamp, alcohols and acids are constant and immediate outcomes of animal death, so that very shortly after death takes place alcoholic fluids are obtainable from the tissues.

But it is claimed that alcohol is to be found not only in dead but even in living animals. Marcownicoff detected alcohol in the urine of diabetic patients, and recently it has been proved that in the excrements of all healthy persons alcohol is traceable, and the reason is not very far to seek. The glucose in the body is acted upon by the always spontaneously present ferments of glucose; alcohol and carbonic acid must be the result.

§ 14. As alcohol is one of the chief products in the first chemical combination in organic decomposition, so it is but natural that it should possess strong potential tendencies towards further dissolution, and as oxidation is the chief agent in dissolution, so alcohol has a strong

been making inquiries as to how they may save the spirit. It is a fact that wherever yeast fermentation is allowed to set in, there alcohol is produced, and that it is quite possible, by condensing the vapours from a batch of bread in the process of baking, to recover quite a considerable quantity of alcohol. But the New York bakers are would-be plagiarists. Some years ago a company was started in London to make bread and recover the alcohol, but owing partly to the bad arrangements adopted, and partly to the opposition of rival bakers, the scheme was a failure. The rival bakers adopted the simple expedient of announcing that their bread was sold "with all the gin in it;" and strange to say they obtained the public custom, although there was no more alcohol in their bread than in that made by the company. It is quite possible to obtain a small quantity of alcohol from the vapours arising from a baker's oven, but any attempt to kill two birds with one stone in this case results in the practical escape of both; for if the bakery is converted into a distillery the bread is spoilt, and the spirits are scarcely worth the trouble, seeing that they can be made cheaply enough by legitimate means, and any attempt to make them illegitimately would bring on the baker all the rules and regulations of the Excise."—*Echo*, January 26, 1884.

attraction to oxidation, and rapidly goes over from one combination to another, gradually freeing the atoms until finally only the original elements of its composition—namely, oxygen, carbon, and hydrogen—remain, set free to enter into new conbinations.

The tendency of alcohol to decompose into elements.

The irresistible tendency of alcohol to dissolve things into their elements, by means of oxidation and hydration, is shown in the very process of distillation, for notwithstanding the elaborate precautions to obtain what is called pure alcohol—we see the alcohol itself proceeding—some of it—into further stages of dissolution by freeing one or more atoms belonging to alcoholic compounds, such as acetic ethers and aldehydes.

As an example of the successively rapid changes towards absolute dissolution which alcohols pass through if free to do so, I may cite changes peculiar to ethyl-alcohol, the most common, least intoxicating, and with which we are most concerned. Its chemical formula C_2H_6O, or two parts carbon, six parts hydrogen, and one part oxygen, easily changes. H being freed, we have acetic ether; another H being removed, there is aldehyde. With this result, double the O and we have acetic acid or spirit of vinegar, etc. (any alcoholic drink exposed only for a short time to the air changes in part into these compounds). All acids substitute an O for H_2 thus :—

Methylic	CH_4O	Formic	CH_2O_2
Ethylic	C_2H_6O	Acetic	$C_2H_4O_2$
Propylic	C_3H_8O	Propionic ...	$C_3H_6O_2$
Butylic	$C_4H_{10}O$	Butyric	$C_4H_8O_2$
Amylic	$C_5H_{12}O$	Valeric	$C_5H_{10}O_2$
Caproylic ...	$C_6H_{14}O$	Caproic	$C_6H_{12}O_2$

§ 15. Methyl and ethyl alcohols have been found useful in various ways in civilization—methyl in particular, because of its comparative cheapness. Methyl-alcohol, as methylated spirit (which is ethyl-alcohol mixed with methyl-alcohol to such an extent as to spoil it for drinking, is very extensively used in varnishes, in methyl-aniline colouring, oil for spirit lamps, and for dissolving resin and fatty substances generally, essential oils, ethers, alkaloids, most organic acids and certain of their salts. It enters largely into the manufacture of candles, india-rubber, and collodion, in which shape it is especially used by photographers, for

Various uses for alcohols.

aromatic waters, cleansing of glass, etc. Pettenkofer, the Munich chemist and physiologist, discovered some years ago how to restore faded oil paintings, by means of alcoholic vapours. Aldehyde is principally used in silver amalgamation on glass.

Sources of the alcohols found in drinks.

§ 16. But in nothing is alcohol more used than in intoxicating drinks, in all of which it forms the chief intoxicating principle. The alcohol is obtained from grapes, whence by fermentation wine, and by distillation of wine, wine alcohol, which, containing about 30 per cent. of water, yield the true brandies; tree fruits—apples, pears, peaches, etc., which, by fermentation, produce ciders, and whose distillations give apple, pear, and peach spirit, and whose dilution by water gives the fruit brandies. By similar processes, currant, lemon, and other brandies are obtained. But the chief sources of alcohol are potatoes, sugar refuse, and grains; of the latter especially barley, rye, and maize, because of the abundance of starch which they contain, which by diastatic ferment is turned into dextrine, then grape sugar, then spirit.

Malting.

The process of glucose development in grain is called malting, by which the grain, first being caused to sprout in warm moisture, is then slowly heated till the life principle is extinct.

Various alcoholic drinks.

The spirit from sugar refuse is called rum; that from potatoes, barley, rye, and maize, whiskies and gins. The gins are flavoured with strong aromatics, especially juniper berries, lemon peel, and turpentine. Barley is chiefly used in the manufacture of beers. And beer is a comparatively weak alcoholic drink in a state of second fermentation, generally flavoured with hops.

Fermented milk is called *koumiss*, and in Russia, by distillation of *koumiss*, a brandy called *araca asa* is obtained. *Arrack* is a brandy obtained from rice; *absinthe* a cordial of alcohol flavoured with wormwood; *tafia* is a brandy from molasses, and *kirsch* a brandy from the cherry.

CHAPTER IV.

ADULTERATIONS.

Universality of liquor adulteration.

§ 17. All adulteration is induced by desire for profit, and therefore its unscrupulousness is limited only by the probability of success. Detection and consequent loss is the only thing the adulterator fears. When we remember these facts, together with the marvellous adulterability * of alcoholic liquors, we can no longer wonder at its vast extension, and the employment therein of all kinds of poisons.

The chief means of all kinds of liquor adulterations is, of course, water, because while it costs nothing, it gives a greatly increased, though fictitious, value to the drink by increasing its volume. That water makes the liquor less harmful is no justification for its employment, and those who do justify it ignore the moral character of the act, at the same time that they tacitly imply the harmful consequences from drinking liquor. But we find also our strongest poisons, such as strychnia, stramonium, sulphuric acid, oil of clove, bitter almond, sugar of lead, used together with innocent mixtures, all of which in certain proportions

* In his work on *Alcohol and its Physical Effects* (New York, 1874), Colonel Dudley says—

"With few exceptions the entire liquor traffic of the world is not only a fraud, but—perhaps without all the dealers being aware of the fact—it amounts to a system of drugging and poisoning. The business of making adulterated liquors has been so simplified that any novice who knows how to make a punch or a cocktail can learn in a short time to make any kind of liquor that will pass muster with nine-tenths of the community."

Bouchardat says, "The wine sold by retailers consists of alcohol, colouring matters, water, and a very small quantity of natural wine."

are disguisable in alcohol, as well as substitutable for it. Alfred Fournier, in his celebrated article in the *New Dictionary of Medical and Surgical Practice* (Paris, 1864), says of thirty-six samples of spirits and brandy retailed at low price in the Faubourg of Rouen, and seized by the police, twenty-one contained sulphuric acid, and five acetic acid. And Dr. Parkes (*Hygiene*, London, 1878) gives no less than nineteen poisons in his formidable table of adulterations. Among these are ferrous sulphate, sulphuric acid, essentia bina, colocynth, colchicum, cocculus indicus, strychnine, tobacco, copper, and lead.

Enumeration of various poisons used.

A "Practical Man" (London, 1826), in giving recipes for adulteration, says that in a certain adulteration of brandy other "fermentable matters are added to the must before the fermentation has taken place;" and of the depravity of another adulteration he adds, "The acid used in combination of counterfeit brandy is commonly called spirit of nitre, and some distillers use quicklime in rectifying their spirits." In 1829 another work, very able and thorough for its time, entitled *Wine and Spirit Adulteration Unmasked*, tells us that "spirits of wine are generally made from the fruits and refuse of all other spirits and compounds put together and distilled."

Here is a short simple recipe for making old Jamaica rum:—

"Sixty gallons proof spirit and one pound of rum essence" (rum essence is composed from acetic ether, saltpetre, wine ether, butyric-acid ether, birch-oil tincture, oak bark, etc., mixed). Very simple, but just think of drinking corn whisky while supposing it to be Jamaica rum! Dr. Riant gives a recipe for making rum of new-scraped leather, oak bark, oil of clove, tar, and molasses alcohol.

§ 18. The liquors most adulterated are the wines, and for many reasons. The art of vinification to even the most skilled and honest wine-makers is a very difficult science. The accidents of manufacture, such as season, fervidity of fermentation, prolonged access of air, and numerous others, materially affect the colours and flavours of the wines, and, indeed, the present public taste—long accustomed to only same-tasting wines, because of their adulterations—would have nothing to do with pure wines

Reasons for adulteration of wines.

which wanted the familiar factitious flavours. Thus even the would-be honest wine-dealer has hardly any alternative to the selling of adulterated wines; and chemical science has discovered abundant means and methods both for adulteration and for artificial manufacture.

We find that wine adulteration commences from the moment the fruit is gathered. Says Dr. Thudichum, in his lecture on *Wines* (London, 1869)—

"Spanish, Portuguese, and French wines of the South are plastered; that is to say, plaster of Paris is dusted over the grapes immediately after they are gathered, or while they are in the press, or while they are in a state of must."

Rhine wine adulterations.

Mr. Walter McGee ("Pedro Verdad"), in his *A Book about Sherry* (London, 1876), a trenchant essay on sherry adulteration and the incapacity displayed by the appointed Government analysts for its detection, quotes the following concerning the Rhine wines:—

"In the district of Neuwied, things have come to a sorry pass indeed. The evil has been imported by wine-dealers from abroad, who come in numbers every autumn, and, whether the vintage promises well or ill, buy up the growing grapes, and make from them five or six times the quantity of wine which the press of an honest vintner would produce. The reader will ask, 'How is that possible?' Here is the explanation.

"During the vintage, at night, when the moon has gone down, boats glide over the Rhine, freighted with a soapy substance manufactured from potatoes and called by its owners sugar. This stuff is thrown into the vats containing the *must;* water is introduced from pumps and wells, or, in case of need, from Father Rhine himself. When the brewage has fermented sufficiently, it is strained and carried away."

Port wine adulterations.

§ 19. For some centuries past, ports and sherries have been the principal wines drunk in England. Before the Select Committee on Wines (House of Commons, 1852), Cyrus Redding stated that though the annual export of port wine amounted to only twenty thousand pipes, no less than sixty thousand were consumed; a goodly amount being concocted out of Cape wines, cider, and brandies, etc., most of the spurious ports being concocted in the London docks, presumably for exportation.

Mr. Vizetelly, the British Wine Commissioner to the Vienna Exposition, writes in his *Wines of the World* (London, 1875): "Nowadays spurious port is produced on a large scale at Tarragona, in Spain, which imports considerable quantities of dried elderberries, presumably for deepening the colour, if not actually for adulterating the so-called 'Spanish Reds.' A couple of years ago I tasted scores of samples of fictitious ports in every stage of early and intermediate development, rough, fruity, fiery, rounded and tawny, in the cellars of some of the largest manufacturers at Cette, and saw some thousands of pipes of converted Rousillon wines lying ready for shipment to England and various northern countries, as vintage port."

Mr. Shaw, in his *Wine, the Vine, and the Cellar* (London, 1863), relates this illustrative anecdote, told by Lord Palmerston to a deputation waiting upon him:—

"I remember my grandfather, Lord Pembroke, when he placed wine before his guests, said, 'There, gentlemen, is my champagne, my claret, etc. I am no great judge, and I give you these on the authority of my wine merchant; but I can answer for my port, for *I made it* myself.'"

Sherry adulterations.

Mr. Vizetelly (*op. cit.*) says about sherry: "The wine which forms the bulk of the better class of sherries imported into England is of the third quality, and is known as *raya*. In its natural state it is sound and dry, of a pale greenish yellow colour, and has no particular character. Much of the low-class sherry shipped from Cadiz is blended, moreover, with poor white wine from the Contado de Niebla. When the wine is designed for shipment, it is sweetened and flavoured to disguise its deficiencies of taste, and coloured in order that it may be palmed off as old and matured—colouring matter and reddish-brown liquid strongly charged with sulphate of potash—then to prevent fresh fermentation, proof spirits are added."

Mr. Walter Burton, late of Her Majesty's Customs, asserts that of many thousand tests which he had made at the London Customs House, the average showed 37 per cent. of proof spirit, while some exhibited as much as 50 per cent.

Mr. James Denman, in his pamphlet, *Wine as it should be* (London, 1866), cites the following significant advertise-

ment from a prominent London morning journal, September 29th, 1866 :—

"Partner Wanted.—A practical distiller, having been experimenting for the last seventeen years, can now produce a fair port and sherry by fermentation, without a drop of grape juice, and wishes a party with from £2000 to £3000 capital, to establish a house in Hamburg for the manufacture of his wines. Has already a good connection in business."

And a writer on *Wine and the Wine Trade* in the *Edinburgh Review* (July, 1867) says—

"All the refuse wine, red or white, old samples, heeltaps of bottles, half-tasted glasses, are thrown down and passed away into the collecting barrel—just as the cook throws any kind of meat and soup liquor into his stock-pot—and with the addition of a little spirit and colouring matter, it comes out very good eighteen-shilling port. Mr. Shaw has shown us how 'curious old brown sherry' * is made already by the aid of 'the doctor.'"

Times' leader (Dec. 10, 1873) on sherry adulteration.

In a leading article in the *Times* (December 10th, 1873) we read :—

"The correspondence which we have lately published on the manufacture of the liquid sold in this country under the name of 'Sherry,' seems calculated to shake even the robust faith of the British householder in the merits of his favourite beverage. The correspondence had its origin in the fate of an unfortunate gentleman who was found, by the verdict of a coroner's jury, to have died from an overdose of alcohol, taken in four gills of sherry; and, as it proceeded, it gradually unfolded some of the mysteries of the processes by which the product called sherry is obtained. In the first place, it seems that the grapes, before being trodden and pressed, are dusted over with a large quantity of plaster of Paris (sulphate of lime), an addition which removes the tartaric and malic acids from the juice, and leaves sulphuric acid in their stead, so that the 'must' contains none of the bitartrate of potash which is the natural salt of wine, but sulphate of potash instead, usually in the proportion of about two ounces to a gallon. Besides this, the common varieties of 'must' receive an additional

* At present termed by publicans the *drink of all nations*, and not limited to wines by any means.

pound of sulphuric acid to each butt, by being impregnated with the fumes of five ounces of sulphur. When fermentation is complete, the wine may contain from a minimum of about 14, to a maximum of 27·5 per cent. of proof spirit; but it is not yet in a state to satisfy the demands of the English market, neither can it be trusted to travel without undergoing secondary fermentation or other changes. It is therefore treated with a variety of ingredients to impart colour, sweetness, and flavour; and it receives an addition of sufficient brandy to raise the alcoholic strength of the mixture to 35 per cent. as a minimum, or in some cases to as much as 59 per cent. of proof spirit. When all this has been done, it is shipped in the wood for England, where it is either bottled as 'pure' wine, or is subjected to such further sophistications as the ingenuity of dealers may suggest.

"Surely it would not exceed the duty of a Government which has done so much to protect the population from disease, by enforcing sanitary regulations—drainage, house-cleaning, etc.—to interfere vigorously and repress this abominable traffic."

§ 20. All wines intended for export are "*fortified*"—that is, alcoholized—on the pretext that only by this method can they be prevented from souring, a questionable statement when asserted of any well-made and matured wine. It is, however, accepted as a truth by the various European Governments, and naturally the cheapest stuff that will answer the purpose is used in this fortification.

Mr. Vizetelly says, "It is notorious that Spaniards are not dram-drinkers, yet for a long time Spain imported annually some 1,600,000 gallons of British spirits.

"It is true that it does so no longer, but simply because Prussia, where it markets to-day, furnishes it with a cheaper article distilled from potatoes and beetroot. It is notorious, moreover, that spirit of the same low class is extensively used in England to fortify port wine in bond. The Custom returns give the total number of 'operations,' as fortifying of wine in the docks is delicately termed, at 820 for the year 1872."

The *Daily Telegraph* (September 12, 1883), in a leader on the political relations between Germany and Spain, says— *Daily Telegraph* leader (Sept. 12, 1883) on

Spanish wine manufactured from raw German spirits.

"Not only does Spain in politics approach Germany; in their commercial negotiations her statesmen have made many concessions to Prince Bismarck. The Peninsula furnishes a kind of medium between the raw alcohol of Germany and the palates of the wine-drinkers of the world. Spain imports vast quantities of spirits from the North, mixes them with her own wines, exports them as genuine products of her soil to France, where, stamped with the names of famous localities or firms, they, like the Tricolor, make the tour of the world. This French demand for Spanish wines so steadily increases, owing to the ravages of the phylloxera, that out of the produce of her own soil Spain could not possibly meet the demand. Hence the commercial importance of her friendship for Germany."

This information as to the character of Spanish wines reads curiously side by side with the statements, in the London morning papers (December 7, 1883), that England is about to conclude a commercial treaty with Spain, the nature of which can be judged from these innocent comments of the *Daily News'* Madrid correspondent: "Even the most extreme pretensions of the Spanish wine-growers only aimed at getting thirty-two or thirty-four degrees for the ultimate limit of the one shilling duty in a definitive treaty some day, and that limit would include fortified wines as well as natural." Thus not only are there to be special facilities for importing, and poisoning the English with vile German whisky flavoured with Spanish wines; but apparently a premium is to be offered to Spain for declining the less vile but costlier British spirits for German, which, excepting under the guise of Spanish wines, would not be drunk in this country!

The *Daily News* Madrid correspondent on the proposed wine-adulteration treaty with Spain.

Ex-Custom officer W. Burton's *exposé* of wine-making from raw potato spirit in London docks, under Government supervision.

It was but a few years ago that the ex-Custom officer, Mr. Walter Burton, drew public attention to the fortifying of wines in the Custom wine-houses and under the actual superintendence of Government officials.

"A wine-jobber," he remarks, "having, say, 1000 gallons of wine, can add thereto 100 gallons of spirit, making a total of 1100 gallons of wine, thereby converting in a few minutes 200 gallons of crude potato spirit diluted with London water, and costing about one shilling per gallon, into, it may be, a 'special sherry' or 'vintage port.' There is, as far as I am aware, no record kept of the

quantity of spirit so turned into wine; but seeing that a large staff of officers are continuously employed in superintending such operations, the increase to our stock in wines from this source must be considerable. It is for the public to say whether this system of manufacturing wine at their expense is to be continued. It is bad enough to have flavoured spirit and water imported into this country under the guise of wine, but it is still more objectionable to pay public officers to legalize the manufacture of such compounds in our own docks and warehouses to the manifest injury of the revenue and of the public health." Such sherry is what is had "at taverns and refreshment bars at public dinners, and which figures on the wine list of the majority of hotels at six shillings the bottle."

Wine rectification with prepared chalk publicly advertised as late as 1878.

The *Licensed Victualler's Simple Guide* (London, 1878), under head of *Fortifying* says, "It frequently happens that wines left in the docks a long time become what is termed 'pricked' (a tendency to acidity). Indeed, they often reach England in such condition; in this case it is well to have them racked on to spirit. Any merchant or agent can superintend the operation. When port is absolutely sour, it is good to drop a pound of prepared chalk into the pipe, and allow it to remain three days; then fine with eggs, and, when bright, rack off with the highest proportion of spirits allowed by the Customs. This process leaves a little flatness, but is a frequent restorative, and renders the wine useful, at any rate for blending purposes."

§ 21. Dr. Brinton, in his work on *Food and its Digestion* (London, 1861), says, "The addition of brandy to wine is, of course, a rank adulteration."

Dr. McCulloch, in his *Art of Making Wine*, observes that "the admixture of alcohol decomposes the wine."

Dr. Garrod, in writing on the causes of gout, says, "The wines to be carefully avoided are port, sherry, madeira, and any in which the fermentation has been checked by the addition of alcohol."

The pernicious practice of heterogeneous mixture of

The writer of the article on *Wine and the Wine Trade* (*Edinburgh Review*, July, 1867), *à propos* of these legalized adulterations, says, "It is, we think, very questionable whether wines of different vintages, but of the same country, should be mixed at all, as is now universally done

wines in the wine trade.

in bond for home consumption. Chemically, they cannot perfectly agree; and in order to keep the peace among them, more alcohol is poured in to pay the constable. But there can be no question whatever of the atrocity of pouring all kinds of wine, white and red, of all countries and all ages, sweet and sour and bitter, into vats, as is now done in the docks, adding spirit to them to keep them from perishing, as they do with preparations in our museums, and then exporting them to other countries. But do they always go to other countries? The evidence of the authorities of the Customs at the docks tells a very different tale. Mr. Cole, Comptroller of the Customs in the London Docks, among numerous other examples of heterogeneous mixtures of wines vatted in these docks, gives us the following, dated October 16, 1850:—

"'Spanish wine, 1529 gallons; of Fayal wine, 544 gallons; of French wines, 4492 gallons; of Cape wines, 689 gallons; of Portugal wine, only 117 gallons, with 155 gallons of brandy, the result obtained being 7524 gallons, minus 8 gallons loss; and the grand result is 7533 gallons of port wine.'"

And the celebrated physician and chemist, Dr. Bergeron, of Paris, says that alcoholization of wine introduces in wine a proportion of alcohol which, not being intimately associated with the other principles of the "must" in the labour of fermentation, finds itself there in a kind of free state, and acts with the same suddenness and energy on the organism as diluted alcohol.

As to champagnes, Wetherbee says, in his *Toxicology*, that a "portion of so-called champagne wines is composed of the expressed juice of turnips, apples, and other vegetables, to which sufficient sugar of lead is added to produce the necessary sweetness and astringency." The *Wine Guide* (London, 1874) counsels wine merchants to clear cloudy and musty wines with sugar of lead, and Dr. Orfila, in his work on *Poisons* (Paris, 1852), says, "Of all the frauds this is the most dangerous. Sugar of lead gives a sweet, astringent, metallic taste, constriction of the throat, pain in the stomach, vomiting, fetid eructation, thirst, coldness of limbs, convulsions, delirium, etc." This, then, is the explanation of the terrible splitting headaches after fashionable champagne suppers.

Various ills caused by drinking adulterated wines.

Dr. Baer states that in the adulteration of wines the colouring matters play a deadly part. "Not only light wines, but mixtures, in which there has never been any grape juice, are artificially dyed and brought into the trade as precious red wines. To this end vegetable dyes are used, such as mallow-bloom, whortleberries, elderberries, cochineal, and logwood . . . and in modern times the aniline dye fuchsia, especially dangerous because of the arsenic it contains. Very serious symptoms have followed a few days' use of this—albuminuria, colic, emaciation, etc. . . . Certain processes resorted to in wine cooperage are very unhealthy . . alkalies—carbonate of lime and quicklime are added to fix the superfluous acids, and plaster of Paris to heighten the colour and increase its power of keeping. In the sulphurating of the wine casks, when the sulphur is obtained from arsenic, arsenical pyrites also may gain access to the wine."

§ 22. At the close of his work on *Wines* (London, 1880), Mr. Vizetelly devotes some attention to beer, and says that "the popular notion that the intoxicating influence of English beer is due exclusively to its alcoholic strength is an erroneous one, for there are many beers containing only a very small quantity of alcohol, that are highly stupefying, most likely due to the use of cocculus indicus." Beer adulteration.

Of course the chief adulterations used for beers are water and salt. To conceal the water dilution, and as substitutes for hops, a number of bitter stuffs are used. Picric acid, aloes, quassia, buckbean, cocculus indicus, and gentian supply the taste of hops; phosphoric acid the hop aroma; and for the headings or froths there are concoctions of alum, copperas, sweet wort, molasses, and cocculus indicus. As a substitute for alcohol, the cocculus indicus berry, which in its poisonous power surpasses alcohol, is being imported in steadily increasing quantities into England. A querist in the *Pharmaceutical Journal* (for 1874) pointed out that "the stocks for a previous month had been 1066 bags," and asked, "Is there any legitimate use for the same?" The *Lancet* declared not, and had "no hesitation in affirming that a very large portion of it is put into malt liquor to give it strength and headiness. A viler agent could not well be introduced into beer than the berry, the stupefying effects of which

are so well known that it is frequently used to kill fish and birds."

As substitutes for malt and sugar, unmalted grain, rye, maize starch, syrups, and glycerine are used. To give age, or rectify staleness, oil of vitriol or sulphuric acids are chiefly employed. Sulphate of iron is the ingredient which gives it the metallic bitter taste so loved by beer-drinkers. Lime and lead composites are resorted to for neutralizing the acids.

The narcotic drink, lupulin.

Another intoxicant, though generally regarded as non-alcoholic, is the lupulin, the pollen from the hop-flower. It contains ethereal oil, tannic acid, bitter stuffs, resin, etc., and the narcotic effect is chiefly due to the resinous part.

CHAPTER V.

PHYSIOLOGICAL RESULTS; OR, EFFECTS OF ALCOHOL ON THE PHYSICAL ORGANS AND FUNCTIONS.

"Delight not in meats and drinks that are too strong for Nature, but always let Nature be stronger than your food.

"Let your food be simple, and drinks innocent, and learn of wisdom and experience how to prepare them aright."—Aphorisms 25 and 32. Tryon. 1691.

"Two lives go to make up the life of a nation. There is, first of all, the individual life, and then the collective life of the individuals, which makes what we call 'the life of the nation;' but if I may be forgiven for saying so, far before the life of a nation is the life of every individual soul who forms a part of it—and if the question of the proper use of alcoholic drinks is important for our welfare as a nation, surely in a much stronger sense it is important for us, as individual souls, fraught with all the business of eternity upon our backs, to determine what is the right use of alcohol. Now, if this question is important in this twofold aspect, what a solemn sense of responsibility must be upon the shoulders of those who come forward to speak about it, and especially upon the shoulders of those who come forward and speak about it with authority! Two things, as it seems to me, are necessary: one is, that he who presumes to speak authoritatively upon this subject shall know it; and the next is that, however dear a certain side of the question may be to him, he should speak about it not with the mere desire to succeed, not with the desire of triumph, but with a loving, reverent, solemn desire to state the truth about it, and nothing but the truth."—*An Enemy of the Race*, Lecture by Sir Andrew Clark, London.

"When I think of the terrible effects of the abuse of alcohol, I am disposed to give up my profession, to give up everything, and go forth upon a holy crusade, preaching to all men—Beware of this enemy of the race!"—*Alcohol in Small Doses*, Lecture by Sir Andrew Clark, London.

Dr. L. Hermann's idea of human life-limit.

§ 23. The greatest physiologists are agreed that the proper length of life allotted to man cannot be known. Dr. L.

Hermann, of Zurich, in the recent edition of his *Physiology* (Berlin, 1882), says, "For all animal life there exists a tolerably certain life-limit, so that we must regard the extinction of function as a normal process; but as to man the typical life-limit is not definable because of the many harmful conditions that accompany civilization."

The present average age of man is not over fifty years, while, according to the Old Testament, from two hundred to six hundred years was once not an extraordinary life-limit, and both marriages and child-births after one hundred years of age are recorded among the ancient people of God. The question raised at this point by reference to such records as these, is of course not one of faith or doctrine; but one of rational inference that an average longevity greater than any reached in our day, or within modern history, was the probable basis of such statements. Herodotus (Book III. chap. vi.) says of the Macrobians (Ethiopians) in the time of Cambyses, that they were remarkable "for their beauty and their massive proportions of body, in both of which they surpassed all other men . . . they lived to be a hundred and twenty years old, and some to a longer period, and yet they fed on roasted meat and used milk for their drink."

Dr. J. R. Farre's opinion on the same point.

Dr. John Richard Farre, when examined before the Parliamentary Committee appointed in 1834 to inquire into the cause and extent of drunkenness, gave it as his opinion, based on the evidences of revelation and both sacred and profane history, that "by the last grant of Providence to man, his life is one hundred and twenty years," and that where diseases arising from other causes do not shorten it, the reason why so few attain that age is to be found in the use of drink, in which the masses of the community continually indulge. He instanced the deaths of Pitt and Fox as due to the use of alcohol, by which they sought to supplement energies already too exhaustingly taxed.

Professor Flourens' epigram.

Professor P. Flourens, of the Collége de France, in his work on *Human Longevity* (Paris, 1854), considers one hundred years to be the normal length of man's life. "Few men, indeed," he says, "reach that age, but how many do what is necessary to reach it? With our way of living, our passions and worries, *man no longer dies, but*

kills himself! To prolong life, that is, to make it last as long as the constitution indicates that it should, there is a means and a very certain means, and that is to live soberly."

Man's responsibility in this matter.

And within the present short limit of life what an infinite amount of disease, and of disease-aborted powers, we find bound up; for as deliberately as he kills himself, does man poison and thwart himself during the period which nature is able to eke out.

Even now individual cases occur of life-limit reaching and exceeding one hundred years, as in the year 1881 deaths were recorded in England of some ninety-one persons of one hundred years and upwards, the oldest one hundred and twelve. But this fact points only to general possibilities, and it is my purpose here to show that science and observation have furnished proof that the chief enemy of the longevity and health of the race is alcohol.

Alcohol a chief agent in abbreviating life.

Ignorance the chief cause of the use of alcohol.

The main cause is ignorance—I mean the pernicious ignorance which knows a thing in a general sense, without acting upon this knowledge in a particular sense, and thereby developing both knowledge and practice into a true science of living, in our own individual behalf and for others.

We are here concerned with this form of ignorance in regard to the general physical laws of the construction of the body and the maintenance of its health,* and with

* Every man knows that his physical body is his means for being and doing. He knows that to this end he must respect, care for—yes, revere his body. And the inherent law of self-defence and self-preservation—by ignorance so often sadly perverted into self-destruction—seeks to teach this fact.

Nobody, when the matter is brought plainly before him, will hesitate to admit that he ought to live in such a manner that all his faculties, capacities, and powers should receive the best development and activity; but in practice this truism is almost unknown. And with our social life and institutions, only an exceedingly small proportion of mankind, even with the best intention in the world, could approximately reach this ideal. Sufficient and agreeable rest, enough of undisturbed sleep, congenial and healthy occupations, sufficient amount and variety of healthy foods, fresh and pure air and water, healthy dwellings, these are all essential for bodily vigour and health; but to how many of the toiling millions who labour for bread, either by muscle or brain, are these essentials vouchsafed?

On the other hand, how many of those so-called fortunate ones,

especial reference to the use of alcohol, which but for this ignorance would not have continued to this date an ingredient in our beverages.

The inherent wisdom manifested in organic life.

§ 24. Before considering definite theories as to what alcohol does and becomes after it enters the living organism, it is well that the starting-point of thought should be that of the marvellous—apparently mechanical—wisdom inherent in organic life, which makes all portions of our being unite with unanimity and harmony to utilize that which is useful, to reduce and reject that which is not; and by which the body, previous to disease, signifies unmistakably its approval or disapproval of the treatment it receives—as, for instance, in hunger or thirst, its intimations are imperative, irresistible, and can be silenced only by obedience or death.

It is essential, also, to bear in mind that this very power enables the body—like the mind—to adapt itself to such gradual derangement and degradation of the great mass of its minor requirements as produce imperfect conditions, which by habit become chronic or second nature.

The chemical elements of the human body.

§ 25. Chemical analysis has demonstrated that the human body contains from fifteen to seventeen chemical elements:—Carbon, 13·5; hydrogen, 9·5; nitrogen, 2·5; oxygen, 72·0; phosphorus, 1·15; calcium, 1·3; with minute quantities of fluorine, sulphur, and iron. These elements form the various organic compounds which make up the body, but as all of them are extremely unstable * in

who could command all these blessings, are wise enough to value them more than the satisfaction of loose desires, sensations, and passions?

* "The animal organic compounds are characterized by their *complexity*, for in the first place many elements enter into their composition. . . . Again, many atoms of the same element occur in each molecule. This latter fact no doubt explains the reason of the *instability* of organic compounds, as many of them are *unsaturated bodies*, or, in other words, bodies containing atoms which are not satisfied according to chemical law by combination with equivalent atoms of other elements. . . . Another great cause of the instability arises from the fact that many organic compounds contain the element nitrogen, which may be called negative or undecided in its affinities, and may be easily separated from its combination with other elements. From the foregoing it is evident that animal tissues, containing as they do these organic nitrogenous compounds, are extremely prone to undergo chemical decomposition, and this is

their character—life and health necessitating their constant change, dissolution, and elimination—the body requires constantly a re-supply of renovating materials which are broadly called food. Whatever, therefore, contains any of the above-mentioned elements in a form chemically soluble and assimilable by the body, is in that proportion a food.

How the body is maintained.

By "food," therefore, is meant any substance, in solid, liquid, or gaseous form, which, when taken internally, supplies some needed substance or force; in a word, anything which, taken internally, supplies with innocency to the tissues any requirement of the body, is food.

Definition of food.

Besides fresh air, pure water, and salt, the body needs constant supply of tissue and force-supplying foods. Nearly all foods have their origin in the constructive action of plant life. Sometimes we take the materials directly from the vegetable kingdom, and sometimes from the flesh of animals who have subjected the coarser vegetable products to a preliminary digestion. Latent energy, in the complex organic substances known as food, is thrown out upon their decomposition into simpler forms of material. Upon the amount of the force thus released, and upon the decomposibility of the organic compound, depends the food value—innocency in relation to the body being assumed.

Division of foods into three classes—Regular, Condimentary, Supplementary and Incidental foods.

Foods may be broadly divided into three classes:—

First, *Regular foods*—such alimentary materials as are usually considered food.

Second, *Condimentary foods*—those which please the palate and smell, including spices and sauces. These should be used with great discretion, in order that the appetite may not be vitiated.

Third, *Supplementary and Incidental foods*—foods suited to irregular conditions, to diseases, etc.; such as some medicines, certain substances which in particular states of health are useful to expel poisons or impurities, to remove obstructions, repair damages, etc.

Division of the Regular foods.

Generally, however, only such substances as properly

especially the case since they also contain a large quantity of water, a condition most favourable for the breaking up of complicated compounds."—W. Morrant Baker's *Handbook of Physiology*. London, 1880.

belong to the first class are commonly accepted as foods. These have been divided into many groups, but the only accurate division is the chemical one, viz., the nitrogenous and the non-nitrogenous: the nitrogenous,* such as albumin (the white of an egg, vegetable albumin in cereals and in the juices of plants; fibrine, the coagulating ingredient in blood, and the gluten in cereals, etc.); and the non-nitrogenous, divided into two groups, viz., the fats or hydro-carbons, and starch and sugar or the carbo-hydrates.

The process of nutrition.

The change of foods † into tissue and the releasing of its energy is a series of intricate processes. After being mingled with the saliva, the food enters the stomach, where it is thoroughly mixed with the gastric juice, and as soon as any portions are fit for blood-making, they are drawn into the blood, while the residual matters are carried off through the intestines.

The nature and twofold mission of the blood.

§ 26. Blood is tissue in solution (that is, food prepared for renewal of tissue, and food which, having been used in tissue-making, has become waste), and in its coursing through all the parts of the body it fulfils the double mission of feeding and of scavenging the tissues.

The constituent parts of blood.

The blood consists chiefly of two compounds—the blood-plasma or serum, a colourless fluid, in which the blood-corpuscles float; and the blood-corpuscles themselves, which contain the colouring matter.

The principal function of the corpuscles seems to be to carry backwards and forwards between the lungs and tissues, the oxygen which they require and the carbonic acid which they give out. Upon the sufficiency, healthfulness, and normal circulation of the blood, therefore, the health and the life of the individual depend.

Water the

But although foods are vitally important for the

* It is a curious fact that, although the bulk of the atmosphere consists of no less than 75 per cent. of nitrogen, still the living body is unable to obtain any of it direct from the atmosphere; and as nitrogen is an element that does not exist in all foods, it has been found convenient to divide foods into the two classes here mentioned.

† The harder the mental or physical labour, the more easy of digestion should the foods be, their mastication should be the more thorough, and after eating the digestive process should be further assisted by rest.

support of life, water is even more important. Water is the medium or vehicle in which all the chemical changes of the body are performed, and in this sense it is an essential auxiliary to the food-materials of the body. Dr. W. B. Carpenter, in his prize essay *On the Use and Abuse of Alcoholic Liquors in Health and Disease* (London, 1849), says, "It is through the medium of the *water* contained in the animal body that all its vital functions are carried on. No other liquid than water can act as the solvent for the various articles of food which are taken into the stomach. It is water alone which forms all the fluid portion of the blood, and thus serves to convey the nutritive material through the capillary pores into the substance of the solid tissues. It is water, which, when mingled in various proportions with the solid components of the various textures, gives to them the consistence which they severally require. And it is water, which takes up the products of their decay, and by the most complicated and wonderful system of sewerage, conveys them out of the system." Dr. Austin Flint, in his *Physiology of Man* (New York, 1866), says, concerning water, that it "is by far the most important of the inorganic principles. It is present at all periods of life, existing even in the ovum. It exists in all parts of the body; in the fluids—some of which, as the lachrymal fluid and perspiration, contain little else—and in the hardest structures, as the bones or the enamel of the teeth." He supplies the following table of *Quantity of Water* in the various parts of the body—parts per thousand:—

paramount need of the system.

Dr. W. B. Carpenter on the paramount importance of water to life.

Dr. Austin Flint on the same.

Teeth	100	Chyle of man	904
Bones	130	Bile	905
Tendons	500	Urine	933
Articular cartilages ...	550	Human lymph	960
Skin	575	Human saliva	983
Liver	618	Gastric juice	984
Muscles of man	725	Perspiration	986
Ligaments	768	Tears	990
Mean of blood	780	Pulmonary vapour ...	997
Milk of human female ...	887		

Of the *Functions of Water*, he says—"As a constituent of organized tissue, it gives to cartilage its elasticity, to tendons their pliability and toughness; it is necessary to the peculiar power and resistance of the bones, . . . and to

the proper consistence of all parts of the body. It has other important functions as a solvent. Soluble articles of food are introduced in solution in water. The excrementitious matters, which are generally soluble in water, are dissolved by it in the blood, carried to the organs of excretion, and discharged in a watery solution from the body."

Drs. Becquerel and Rodier on the proportion of water in blood.

The French physicians, Becquerel and Rodier, in their treatise, *Pathological Chemistry as applied to Medical Practice* (Paris, 1854), state, as to the constitution of the blood, that it consists of—

Water	781·600
Globules	135·000
Albumin	70·000
Fibrine	2·500
Chlorides of sodium, potassium, magnesium, etc. ...	3·500

Dr. Albin Koch on the same.

And the Danish physician, Dr. Albin Koch, states that by dividing the blood into 1000 parts we find that it consists of 789 parts of water, 131 of blood-corpuscles, 71 parts albumin, and the remainder are salts, fats, etc.

Water, therefore, is the overwhelming need of the system, as the sufferings from excessive thirst prove; death by thirst is more rapid and distressing than by starvation.

Definition of poison.

§ 27. As by food is meant anything which feeds tissue or replenishes force, with innocency to the organism, so by poison is meant anything which, when taken into the body, does harm to it.

Division of poisons into two groups—Absolute and Incidental poisons.

Poisons may be divided into two groups—*Absolute poisons*, or such as are always hurtful or useless, and *Incidental poisons*, such as are determined in their ill or good effect by the condition of the body; and these may be interchangeable with the second and third groups of foods, according to the condition of the person taking them.

Even the regular foods may at times act as poisons, and the absolute poisons act as foods, but such occasions are rare.

Any substance not a food, if used as a food, acts as a poison.

§ 28. For an authoritative answer to the question whether alcohol is a food or a poison, we look naturally

to the physician; but, unfortunately, the most renowned physicians differ in their opinions on the subject.

Although for upwards of four centuries warning voices have from time to time been raised against the use of alcoholic drinks, it is only within the memory of the still living that these voices have been listened to in earnest.

During the last thirty years—that is, since the establishment of a scientific system of physiology—scientists have laboured most indefatigably to find out what are the effects of alcohol. Some light has been gained, but only a very few points have been generally accepted as proven. Hundreds of able medical authorities have devoted much time and care to watching the phenomena of drink, and the records of these endeavours are a proud memorial to the sincerity and earnestness of the medical profession.

The present attitude of physicians on the subject of the use of alcohol.

The most eminent members of that profession have made public the apparently irreconcilable results of their varied experiments. Others, seeing only the uncertainty and confusion on the subject, have eluded the difficulty by declaring the outcry against alcohol to be nonsense, and by affirming that while many perish from excessive drinking, those who drink moderately are benefited, and that if it is not indispensable for the preservation of health, it is of great importance to it. A still greater number—the rank and file of medical men—yet hold that alcohol is always bad for young people, but that for healthy adults, when taken in very small quantities, one to two ounces daily, it is, if not beneficial, at least harmless. A few remain neutral as to its effects; and a few take a decided stand against its use as a drink, but differ widely in almost every instance as to its use and value medicinally.

We must, therefore, try, by a collection and careful analysis of comparisons and deductions, to arrive at the result.

The important *rôle* played by the microscopic world in the visible world;

First, as regards alcohol itself. We saw in chapter iii. how important a *rôle* the recently discovered world of microscopic animals and plants, called ferments, play in the economy of both life and death; how it is through the activity of these minute organisms that both animals and

people are swept away by what are termed infectious diseases: for example, the rinderpest and pleuro-pneumonia among cattle; the plague, yellow fever, and cholera among men. That, on the other hand, but for the activity of other kinds of these invisible forces, life would be impossible; that it is by means of the diastatic ferments* that digestion becomes possible; by means of this activity insoluble albumen becomes soluble (peptone); starch and some cellulose are changed into dextrine or grape sugar; fats are split up; and cane sugar, which is insoluble in protoplasm, becomes soluble glucose. (These minute organisms, moreover, are the scavengers of nature.)

especially in producing alcohol.

And we saw that alcohol, which is obtained from the saccharine matters of grapes, cereals, potatoes, beets, etc.—that is, from the principal carbo-hydrates—is also the educt of digestive or diastatic ferments (ferments that feed on the albuminous accompaniments of saccharine substances), such as those through whose activity starch and cellulose become grape sugar, and cane sugar becomes glucose.

Is alcohol a food?

Can alcohol be called a food on the ground that it nourishes tissue? I have already pointed out that the nutritive powers of food depend on the proportion in which they hold compounds of elements which can be made available for the renovation of the body; and (chap. iii.) that hitherto alcohol has not been found in the living organism, except possibly in the wastes and refuse, and even in these only in infinitesimal traces, so loth is the body to harbour alcohol.

Alcohol is not found in the living organism, except in occasional traces in the refuse.

But if science should succeed in discovering traces of alcohol in living tissue, it would be at most only in such infinitesimal quantities as those of copper and lead; and surely no one, because copper and lead had been found in the body, would suggest that we should supply ourselves with these compounds by the use of salts of copper and lead as foods!

* To these ferments belong the so-called ptyalin found in the saliva, the ferments in the pancreatic juice which change starch into soluble glucose, also the ferments of the liver which act on the glycogen; other ferments change cane and milk sugar into glucose. The hydrolytic unknown processes of life are supposed to be due to the activity of various ferments.

Dr. A. Baer denies that alcohol is food.

Dr. A. Baer, of Berlin, in his treatise on *Drink Craving* (1881), states that "alcohol contains neither albumin, nor fat, nor any other substance either present in the animal organism or arising by chemical changes in the body and replacing a part of the same."

Dr. Klein's testimony to the worthlessness of alcohol as food.

We see everywhere around us, thanks to the progress of the temperance reform, people sound in mind and body, who never touch alcohol. The following very practical testimony to the uselessness of alcohol as a food I find in Dr. L. A. Klein's * lecture † on the effects of the use of alcohol during the siege of Paris:—

"It was just the time when the wine-merchants are used to buy their stock for the year when the war broke out, so we had plenty of wines of every description. It was distributed by the Government very liberally indeed.

"We drank because we had nothing to eat. We found most decidedly that alcohol was no substitute for bread and meat. We also found that it was not a substitute for coals. You know how cold the weather was during the winter. We of the army had to sleep outside Paris on the frozen ground, and in the snow, and when we got up in the morning we were as stiff as planks. We had plenty of alcohol, but it did not make us warm. We thus found out by bitter experience that alcohol did not make us warm, did not replace food of any kind, and did not replace coals. Let me tell you there is nothing that will make you feel the cold more, nothing which will make you feel the dreadful sense of hunger more, than alcohol."

Reasons for the notion that alcohol is food.

But though the conclusion is clear that alcohol is not food, there are reasons for the general belief that it is; such, for example, as the outward appearances attending its use, the heightened colour, the temporary increase in vivacity of mind and manner and in surface temperature, the lessened requirement of regular foods; all which seem to indicate that alcohol does, in some kind and degree, feed the system. It is also claimed that alcohol has in critical cases saved life that must else have been inevitably lost; ‡

* French staff-surgeon.

† See *Medical Temperance Journal*, October, 1873.

‡ There have been cases in which alcohol has been said to have supported life. But it also appears to have been proved that life has

and when to this is added the scientific testimony that it is a product of the chief carbo-hydrate, sugar—which is known to be one of the most important foods of the body—it is not strange that alcohol should have come to be generally regarded as a food. The validity of all these reasons for such belief will be examined in due order when the particular results to the body from its use come under consideration.

Alcohol tried by the tests of foods.

§ 29. Here let us try alcohol by some of the general tests of foods.

1. The regular foods are essential to life. It is positively proved that alcohol is not essential either to life or health.

2. The periodic need felt for regular foods ceases each time after being moderately supplied; even the momentarily importunate demand (caused by some special want) when satisfied also ceases, or, if satiated or persistently denied, may even change to aversion.—With alcohol, the desire, if steadfastly denied, will gradually cease; but if satisfied, it begets abnormal craving, and that craving, having once taken hold, becomes the most insatiable of human passions. As Linnæus said, "Man sinks gradually by this fell poison; first he favours it, then warms to it, then burns for it, then is consumed by it." *

3. Regular foods, when taken in their proper ratio, are easy of digestion, and give the system a calm increase of vigour.—Alcohol deranges digestion and disturbs the action of nerve-tissue.

To judge from these tests, therefore, alcohol is not only not a regular food, but, if used as such, acts as a poison.

But alcohol is a product of saccharine fermentation; and sugar is a very important food.

Dr. Flint on the importance of sugar to nutrition.

Dr. Flint says (*op. cit.*)—

"Sugar is an important element of food at all periods

been maintained by chewing shoe-leather. Does this bring shoe-leather within the category of foods? Life has also been said to continue quite anomalously, with a total absence of diet. Is then nothing a food? Whether alcohol is a supplementary or incidental food is dealt with later on in chapter x. on *Therapeutics*.

* *Dissertatio Sistens Inebriantia*, by Dr. Linnæus, Upsala, Sweden, 1762; "Agunt adeoque hæc inebriantia ut ignis potentialis, qui in, gradu, favet, calescit, urit, comburit."

of life. In the young child it is introduced in considerable quantities with the milk. In the adult it is introduced partly in the form of cane sugar, but mostly in the form of starch, which is converted into sugar in the process of digestion. With the exception of milk sugar, which is only present during lactation, all the sugar in the body exists in a form resembling glucose, into which milk sugar, cane sugar, and starch are all converted, either before they are absorbed or as they pass through the liver. In addition to these external sources of sugar, it is continually manufactured in the economy by the liver, whence it is taken up by the blood passing through this organ. It disappears from the blood in its passage through the lungs. In the present state of science we are only justified in saying that sugar is important in the process of development and nutrition at all periods of life. The precise way in which it influences these processes is not fully understood."

Sugar never converted into alcohol in the system, not even in disease. The lethal nature of alcoholic fermentation.

But the body, although richly supplied with and always requiring sugar, *never converts it into alcohol*, not even in disease, and hence we see such use of sugar is *foreign to the economy of the body*. The oxidation of sugar in the body is an innocent process of breaking up into carbonic acid and water. These products are eliminated by the respiration, while the force released is used by the system. Alcoholic fermentation results in two poisonous compounds, alcohol and carbonic acid.*

* The lethal or death nature of alcohol [1] is apparent in its very

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[1] "The Fermentation of Food in our stomach is performed after a manner imperceptible, wherein all is quiet and silent, provided the Meats and Drinks be of a suitable Quality and not too great in Quantity." But in alcoholic fermentation—"when the sleeping silent Powers or original Properties in all sweet Liquors or Juice, are disturbed, as they are in a full or strong Ferment, all the Art in the World cannot incircle or tame them; for Fermentation is an opposite and contrary motion to Nature and threatens the total destruction of the whole—being, as it were, a Death to the United Powers and Uniform Principles, a destruction of Multiplication and prevention of all farther Progression—and does, as it were, in a moment disunite—the original Forms become tumultuous, each Form with a rapid invading Motion laying, as I may say, violent hands on the sweet original Quality . . . for Fermentation in the strictest and best Sense, is no other than a certain vegetative and insensible Delirium of Madness; all its operations when the Fermented Liquor is strong and Spirituous,

Alcohol inimical to life. Sir A. Carlisle on this point.

§ 30. The general effects of alcohol in the animal world are inimical to life. Sir A. Carlisle, in his work, *On the Pernicious Effects of Fermented and Spirituous Liquors, as Part of Human Diet* (London, 1810), says that "no living animal or plant can be supported by such fluids, . . . on the contrary, they all become sickly and perish under their influence." In the animal world the poisonous nature of alcohol is easily tested. Put only a few ounces of alcohol in a pail of water in which are living fish, and in a few minutes they will die. Or, expose a fly to alcoholic vapour in a closed vessel, and it will speedily die.

The influence of alcohol on the human system, subject to various qualifying conditions.

In treating of the special effects of alcohol on the human system, it must be premised that these effects are greatly influenced by a variety of conditions, such as the kind and purity of the alcohol or alcohols taken; whether diluted or not; in large or small quantities; whether taken habitually or occasionally; in health or disease; by children or adults; on full or empty stomachs; the temperament of the taker, etc., etc. Still, excepting in rare instances, and only when the dose taken is very small, the trained observer can always trace harmful results from its use by man; and if observers of the physiological effects of alcohols on man had generally given due consideration to each of these qualifying conditions, there is good reason for believing that most of the contradictory results of experiments which now exist as a chief stumbling-block in the way of this study would have been reconciled or removed.

compounds. The distillate called alcohol often contains a variety of poisonous substances. Besides the ethyl, amyl, and butyl alcohols, there are acetic aldehydes and ethers, essential oils, variously named ethereal and fusil oils, and a number of other volatile unknown compounds, all of which, when left at liberty, evaporate and dissipate beyond the ken of man.

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are in proportion; and the same as being Disbanded from under the Government of its Superior Officers, so soon as a quantity of it is introduced into Man's Body, it plunders Nature of all its Sweet Virtues by drying and parching them up; and at the same time breaks the Government of the Senses, turning Reason and Wisdom adrift; so that the Body is in no better Condition than a Ship without either Pilot or Rudder."—Tryon's Letters (Letter 37, "Of Fermentation"). London, 1700

§ 31. Alcohol exercises two powerful influences on the two essential means for the maintenance of life—foods and water; viz., retardation of the processes of digestion and assimilation; and interference with the aqueous nature of the blood, and hence two general harmful results—indigestion and thirst, both of which are considered curable with alcohol, instead of with light, well-masticated foods and pure water, supplemented, at times—in extreme cases of indigestion—with artificial pepsine, etc.

Alcohol's twofold hurtful influence on nutrition.

First, as regards the retardation by alcohol of the processes of digestion and assimilation of foods. Its effects on the two classes of foods (nitrogenous and non-nitrogenous) is similar, though stronger in the case of nitrogenous foods, the albumen of which it coagulates. Of course the larger and stronger the dose the greater is its influence on digestion. It is a fact of common observation that drunkards may vomit half-digested or wholly undigested food, hours and days after its ingestion, showing the power alcohol has to prevent digestion.

Its effects in retarding digestion.

But when alcohol is taken in small doses only, it is said to have quite a different effect—that of promoting instead of hindering digestion, by inciting a copious flow of the gastric secretion.

The use of artificial means to restore natural processes to their normal state, is the kind of work for which the physician is especially educated, and the means so used come under the general head of medicine. If alcohol acts as a promoter of digestion, it is acting as a medicine, and therefore belongs to the medicine chest and cannot be prescribed as a beverage, and should be treated of in this sense under the head of therapeutics.

But the fact of the very general belief in and use of alcohol as an excellent aid to digestion makes it necessary to deal with it here.

In health, digestion is a natural process, which not only does not require, but would be impaired by artificial promotion. In nearly all cases indigestion arises from irregularity at meals; poor, badly prepared, ill-cooked, and insufficiently masticated foods; want of exercise, or undue and ill-timed exercise, etc., etc., all aberrations from the normal condition of the body.

A wise physician is familiar with these things, and knows that a return to obedience to the simple laws of health will generally remove indigestion, and that artificial means are the last that can be properly resorted to; and that when such are required, artificial pepsine and some harmless compounds will serve his purpose.

A profuse amount of gastric juice will, no doubt, digest food more rapidly than a small amount, and therefore the abundant secretion of gastric juice provoked by the daily taking of a small amount of alcohol may for some time promote digestion.

But to urge digestion is no more desirable than to urge growth. What is pre-eminently desirable is that these processes shall *be natural;* that there shall be no extortion, which always involves two very bad things—exhaustion and waste.

By the enormous exudation which alcohol causes from the walls of the stomach it is diluted and rendered less acrid, and unless the dose be large, it is too quickly diluted and absorbed into the blood to enable it to act mischievously on the digestion and the stomach. In this process the intense affinity between alcohol and water plays an important part. Blood, as has been shown, consists overwhelmingly of water, and water is promptly diffused into the alcohol in the stomach, at the same time that the alcohol is absorbed from the stomach into the blood by the water in it. The arrest of the digestion, therefore, is more or less quickly superseded, by the completeness and rapidity of the entrance of the alcohol into the blood.

Prof. Dogiel on the rapidity of its entrance into the blood.

Prof. Dogiel, in a paper on *Monatomic Alcohols*, read to Russian savants at Kasan, in 1873, said that alcohol can be detected in the chyle of the thoracic duct, as well as in the blood, a minute and a half after its introduction to the stomach.

Now, the solving agent in the gastric juice is the pepsine, as we know, but this is itself insoluble in alcohol, and when mixed with alcohol, is hindered in its own office by the coagulating influence alcohol exerts on the foods.

Drs. Todd and Bowman, in their work, *The Physiological Anatomy and Physiology of Man* (London, 1856, chap. xxiv. *On Digestion*), say, "The use of alcoholic stimulants also

retards digestion, by coagulating the pepsine, and thereby interfering with its action. Were it not that wine and spirits are rapidly absorbed, the introduction of them into the stomach in any quantity would be a complete bar to the solution of the food, as the pepsine would be precipitated from solution as quickly as it was secreted by the stomach."

Alcohol a prolific source of chronic indigestion.

It must, however, be noted that the alcohol, though apparently helpful at the moment by procuring a profuse flow of gastric juice, secures this temporary effect at the cost of great waste of this precious fluid, not only at the time, but by necessitating—because of the degradation of the blood of which gastric juice is an outcome—larger and larger recurrent demands upon it, while steadily impoverishing it in quality and weakening the activity of its solving principle, the pepsine; and the stomach must ultimately become bankrupt from these extortions, and indigestion, with its train of countless diseases, will ensue.

Dr. F. R. Lees' summary of the effects of alcohol on digestion.

Dr. F. R. Lees, in his essay, *Is Alcohol a Medicine?* (London, 1866), admirably sums up the effects of alcohol on digestion and the stomach in these words:—

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

The effects of alcohol on the stomach itself, depend upon the rapidity with which the alcohol is drawn into

the blood current, which in turn depends greatly upon the amount and dilution of the alcohol ingested, upon the proportion of salts or ethers in it, and the amount and kind of other fluids and foods at the time present in the stomach; the health and age of the taker; the familiarity of his stomach with alcohol; the power and activity of the excrementory organs, etc., etc., all of which are considerations absolutely essential to a scientific use of alcohol as a promoter of digestion, and some of which are quite beyond certainty of calculation. In one word —even on the assumption that alcohol may be used as a medicine, it is quite clear that no general prescription of it could ever be justifiable, and that any prescription of it must always be based on a careful diagnosis of each particular case.

If the stomach is little accustomed to alcohol and the dose taken is not very large, the damage done by it in a fairly healthy adult organism is comparatively small. The water yielded by the stomach, as well as the increased flow of the gastric juice, for the dilution of the alcohol, together with the rapid absorption of the alcohol into the blood, co-operate to lessen the injury to the mucous membrane of the stomach.

Dr. William Beaumont's experiment on the stomach of the Canadian hunter, St. Martin.

Still, the results of the ingestion of alcohol are never innocent, and how little feelings and general signs indicate the real condition of the stomach, even after liberal indulgence in alcohol, was conclusively demonstrated in Dr. William Beaumont's * *Experiments and Observations on the Gastric Juice and the Physiology of Digestion* (Plattsburg, 1833). His observations were based on the phenomena exhibited in the famous case of the Canadian huntsman, Alexis St. Martin, who was accidentally shot, the ball entering his side and piercing the stomach. He recovered from the wound, but an opening remained, which was used "as a door by which to introduce substances into the stomach, and as a window through which to look in and examine effects."

Dr. Beaumont tried St. Martin's stomach with alcohol, and as this hunter had been a man of temperate habits the results were most valuable. After a few days of free indulgence in spirits by St. Martin, Dr. Beaumont made

* Surgeon-General of the United States army.

these observations by means of the aperture in the patient's stomach: "The inner membrane of the stomach unusually morbid, the erythematous (inflammatory) appearance more extensive, the spots more livid than usual—from the surface of some of which *exuded small drops of grumous blood*—the aphthous (ulcerous) patches larger and more numerous, the mucous covering thicker than common, and the gastric secretions much more vitiated. The gastric fluids extracted were mixed with a large proportion of thick ropy mucus, and considerable muco-purulent matter, slightly tinged with blood, resembling the discharge from the bowels in some cases of chronic dysentery. *Notwithstanding this diseased appearance of the stomach, no very essential aberration of its functions was manifested.* St. Martin complained of no symptoms indicating any general derangement of the system, except an uneasy sensation at the pit of the stomach, and some vertigo, with dimness and yellowness of vision, on stooping down and rising again; had a thin yellowish-brown coat on his tongue, and his countenance was rather sallow, pulse *uniform and regular, appetite good, rests quietly*, and sleeps as usual." *

Summary of effects of alcohol on digestion.

Thus we find that, in large doses, alcohol arrests digestion and damages the mucous membrane of the stomach, and in the proportion that it is undiluted; that in small doses it rapidly leaves the stomach; that in all except the most minute doses it provokes an extraordinary flow of secretion which is more or less wasted; that this of itself—if alcohol be habitually taken—will, by constant overdrawing on the natural resources of the blood whence the gastric juice is distilled, impoverish the blood and degenerate the gastric juice, until impaired digestion becomes chronic indigestion.

§ 32. But we shall presently see that the action of alcohol in the blood accelerates this condition, because alcohol degrades the blood itself, and as the gastric juice is incapable of essentially altering alcohol, it follows that the latter passes in an unchanged state into the blood.

* The next observations made by Dr. Beaumont instanced the rapidity with which St. Martin's stomach recovered its normal condition after a very few days' abstinence, and he adds, "The free use of ardent spirits, wine, beer, or any intoxicating liquors, when continued for some days, has *invariably* produced these morbid changes."

The effects of alcohol on the blood.

As in the case of food, alcohol, in being drawn into the blood current, passes through the liver.* The general effects of alcohol on the blood (tissue in solution, both for renovation and depuration) are to some extent similar to those it exerts on the food in the stomach; it retards the oxidation of the food portions in the blood, and occupies as much as it can of the water contained in the blood. Hence there is an arrest of both the functions of the blood, the renewal of used-up tissue, and the carrying off of the refuse.

The food elements in alcoholic drinks.

The fact that alcoholic liquors almost always contain some residual undecomposed saccharine substances, which in themselves are feeding, and the fact that practical experiments have shown that under an alcoholic regimen there is an increase of bodily weight; these two facts have greatly helped to spread the error that alcohol is food. I will therefore touch on these two points before proceeding with the question of alcohol and the blood.

§ 33. It has already been shown that alcohol itself is not food; that if food exists in alcoholic drinks it is not found in the alcohol, and therefore unsweetened spirituous liquors which (minus adulterations) consist almost wholly of alcohol and water, are not feeding—a truth made apparent in the lean and wasted appearance of spirit-drinkers. In the case of drinkers of sweetened spirituous liquors this truth is less manifest, and is apparently quite contradicted in the case of the consumer of malt liquors, by a robust and rosy appearance.

It has already been seen from Dr. Klein's testimony regarding the use of wine by the French troops during the siege of Paris, that wine, used as food, proved useless and worse than useless. An analytical report in the *Lancet* (Oct. 26, 1867) says, as to the real amount of nutritious elements found in wines:—

The *Lancet* on the nutritious elements in wines.

"In every 1000 grain measures of the clarets and burgundies tested, the mean amount of albuminous matter present was only $1\frac{1}{3}$ grain, whilst in 1000 grains by weight of raw beef there are no less than 207 grains of such matter. That is, the quantities being equal, beef-steak is

* In chapter vi. it will be seen that the organ which, next to the brain, suffers most from alcohol, is the liver.

156 times more nutritious than wine" so far as albumen is concerned.

Of course this is not a fixed standard as to wines, which vary in the amount of food they contain (see chap. iv. on "Adulterations") according to the perfection of the vinification. The poorer that is, the greater the proportion of undecomposed residual food matters, but the more dangerous also are these, especially as producers of gout.

Malt liquors specially considered.

But malted liquors, beer, ale, and stout, are commonly supposed to be not only innocent but wholesome and nutritious; and that this notion is spreading appears from the fact that during late years the number of beer-drinkers is on the increase in almost all countries, and for this reason I wish to deal with the beer question more in detail.

Some consider malt liquors to be harmless on the erroneous supposition that they do not contain the same alcohols as other intoxicants; others base their notion of the innocency of such liquors on their knowledge that they ordinarily contain but a relatively small amount of alcohol, and are therefore comparatively harmless. Malt liquors are held to be nutritious because they are prepared from malt, and because malt-liquor drinkers usually grow fat and bear a superficial appearance of health.

In chapter iii. it was shown that the intoxicating principle in all unadulterated alcoholic drinks is the alcohol, and therefore, whether taken in large or small quantities, the tendencies to structural degeneration and the development of the "drink-crave" are the same in weak beer as in rum or whisky drinkers. The glass of beer prepares the palate for the glass of whisky,* just as the taking of the penny or shilling prepares the way for the theft of the pound. The incipient stages of a downward career are

* Beer-drinking is usually the starting-point for becoming a drunkard, and malt liquors are especially dangerous by reason of the salt put into them. In an article on *Drinks and Drinking* (*English Mechanic*, December 8, 1882), Dr. James Edmunds says, "One reason why beer-drinkers go back so soon and so repeatedly to the public-house is because salt is put into their beer for them; the salt gives a certain piquancy to the flavour of the beer by irritating the nerves of the tongue, and it serves also to set the kidneys going, and bring the customer back to the public-house."

nearly always seemingly innocent, but when the sincere mind, perceiving the danger, resists the insidious approach of evil, it quickly discovers that the gentle, scarcely perceptible first slips—full of specious compromise and self-deception—hold the essence of the deepest fall possible.

The last point urged in favour of beer-drinking, that it gives bulk and ruddy complexion, and hence that the barley in the beer must be as nutritious as it is in the loaf, it will be seen that this also is fallacious. Malt liquors consist of from three to thirteen per cent. of alcohol, with more or less undecomposed albuminous residues of the saccharine matters in the malt, with some salts—and to this extent, therefore, beer is food. But, in the first place, malt is not quite so nutritious as grain.

Dr. Lyon Playfair on the relative feeding powers of barley and malt.

In speaking of the feeding of cattle with malt or barley, Dr. Lyon Playfair says, "Barley in the act of germinating loses a certain amount, both of the constituents which form the flesh and those which form the fat of the animal. A given weight of barley is therefore of greater nutritious value, both as regards the production of muscle and fat, than the same weight converted into malt." *

The food in alcoholic drink is not in the alcohol, but in the residuals.

It must be recollected that malt, in being turned into alcohol, goes through a process, like the grape and potato, of organic degradation, and therefore, though malt is food, it does not follow that the alcohol made from malt is food. In fact, if there is food in the alcoholic drinks, whether malted or spirituous, it is not in the alcohol, but in the residual substances that remain undecomposed.

The fat in the beer-drinker is composed of these albuminous residues, which, having been alcoholized, resist the action of the various solvents in the system, and therefore, being neither fit for use in the body nor reducible to a form in which they can be excreted, they have to be stored away so as to prevent obstruction to the

* Dr. Edmunds kindly writes me on this point: "I am not sure that Dr. Playfair has seen the whole truth in relation to the use of malted grain as food for cattle. Granting that the quantity of energy derivable from malted grain is less than that from unmalted grain, the question remains whether the greater solubility of the saccharized starch in malted grain does not in some cases ensure more perfect absorption into the system, and thus that in food value, for the practical purposes of fattening, malted grain may be of more value than unmalted."

circulation, and hence, so long as there is room, they are packed away, much of them, under the skin, and thus the fat and healthy appearance of the beer-drinker! When there is no more room immediately under the skin, the fat has to be deposited in the interior of the body, and hence the common diseases of fatty degeneration of the kidneys, liver, heart, etc.

Dr. J. W. Beaumont on the character of the fat in the system of malt-liquor drinkers.

Dr. J. W. Beaumont, in an address on alcohol and nutrition (Sheffield, 1863), alluding to the fact that brewers' men, who almost subsist on malt liquors, are remarkably fat, said, "This is conceded, but their stoutness does not arise from the alcohol. Where obesity results from drinking malt liquors, it is from the nutriment contained in the saccharine portion of the constituents of the beverage, and *not* from the alcohol."

Dr. T. L. Brunton on the same.

Dr. T. Lauder Brunton, in his paper on the *Influence of Stimulants and Narcotics on Health* (*Book of Health*, London, 1883), says that "Wine has a less powerful local effect upon the stomach and intestines, and is less likely to destroy the digestive powers, than spirits. At the same time it does not contain any nutritious substances in addition to alcohol, and so it does not tend of itself to fatten. Consequently, the wine-drinker is neither emaciated like the gin-drinker, nor bloated like the beer-drinker. As the beer-drinker takes beer in addition to other nutriment, he has a tendency to become fat and bloated at one time, although he may afterwards become thin and emaciated, from his digestion also suffering like that of the spirit-drinker. Notwithstanding the apparent stoutness and strength of beer-drinkers, they are by no means healthy. Injuries which to other people would be but slight, are apt to prove serious in them; and when it is necessary to perform surgical operations upon them, the risk of death is very much greater than in others."

Dr. Hammond on alcohol being a food because of its tissue-preserving properties.

The credit of the discovery that alcohol is a food because it tends to increase the bodily weight, belongs to Dr. W. A. Hammond, of New York, who, after practical experiments upon himself, explains in his *Physiological Effects of Alcohol and Tobacco upon the Human System* (Philadelphia, 1863), that alcohol is a food, because it "increases the weight of the body by retarding the meta-

morphosis of the old and promoting the formation of new tissues, and limiting the consumption of fat." In an address to the New York Neurological Society (1874), Dr. Hammond (its president) reiterated these opinions, enlarging upon them in these words: "There are two facts which cannot be laid aside, and these are, that the body gained in weight, and that the excretions were diminished when alcoholic fluids were taken. These phenomena were doubtless due to the following causes: first, the retardation of the decay of the tissues; second, the diminution in the consumption of fat in the body; and third, the increase of the assimilative powers of the system, by which the food was more completely appropriated and applied to the formation of tissues. After such results," says Dr. Hammond, "are we not justified in regarding alcohol as food? If it is not food, what is it?" Hence, Dr. Hammond concludes that alcohol is food, because it preserves tissue!

Irrespective of any scientific knowledge, it ought to be obvious that, if alcohol reduces appetite, and, therefore, consumption of food, and yet increases weight, it must be doing harm.

The meaning of alcoholic preservation of tissue.

But it is difficult to understand what benefit is expected to be derived from the tissue-preserving properties of alcohol. Tissue-preservation, if it means anything, must mean disease, just as much, though in an opposite sense, as fever means disease; because tissue-preserving can mean nothing else but interference with the natural renovation and depuration of the system, and that can scarcely be pointed to as an advantage, except presumably for prolonging life during starvation — a presumption without foundation—and possibly in wasting fevers, in which case, however, there would be required an intelligent computation as to whether or not the retarded oxidation would adequately compensate for the impairment of the blood.

Health requires a proper balance between want and supply, and anything disturbing this balance produces disease—and retarded oxidation, which disturbs both of the processes which make the health balance, can be nothing but disease.

As to the increase of his weight recorded by Dr. Ham-

mond, it might be due to conditions contrary to health. It is really curious what importance is attached to weight. It is well known that people of light weight have as good health, as much energy, capacity, and endurance, as heavy people, and very generally more, and that there are both light and heavy people who equally lack these precious blessings. Of course circumstances alter cases. Weight tells in forcing one through a crowd or mob; boatmen and blacksmiths need it, but neither the athlete nor the boatman will use alcohol to increase his weight!

§ 34. Let us now return to the consideration of the effects alcohol has on the blood, and in the course of the argument the real character of alcoholic tissue-preservation will also become further apparent.

In the opening of this chapter it was pointed out that blood is tissue in solution (water solution). On the maintenance of the purely aqueous character of the blood, the supply and scavenging of the tissues greatly depend; and no substance is innocent which, entering the blood, materially alters this condition. Alcohol falls by this test. Its coagulating and dissolving powers—which, thanks to the rapidity of its entrance into the blood, are not allowed at once to ruin the digestion and the stomach—have freer play in the blood-current, though the profuse dilution does lessen its harmful effects.

Special consideration of the influence of alcohol on the blood.

Alcohol being itself a feebly oxidized body, it is eager to absorb oxygen wherever obtainable. The life-processes of the body depend on the combustion which continually goes on in all its parts. As was shown in chaper iii., oxygen is an essential factor in this process, hence the large proportion of oxygen in the body—and it is the function of the blood-corpuscles to carry oxygen to all portions of the system. Alcohol, because of its imperfect oxidation, in entering the blood, seizes on this oxygen and takes as much of it as it can; and, of course, the greater the amount of alcohol, the more oxygen does it withdraw from the blood, and hence the more is the combustion in the body retarded. And in the ratio that the blood-corpuscles are robbed of oxygen, do they also become degenerated.

Dr. Carl H. Schulz on

The German Dr. Carl H. Schulz, as long ago as 1834,

alcoholic degeneration of the blood.

demonstrated* that alcohol produces premature decay and death of the blood-corpuscles. "The colouring matter," he says, "is dissolved out of them, the white corpuscles lose their vitality, less oxygen can be absorbed, and less carbon carried off." (Dr. Dumas attributes the alcoholic degeneration of the blood to the action of alcoholic ferments feeding on the albuminous portions of the saccharine fluids in the blood.) And later experiments by such physiologists as Böcker and Virschow led to similar conclusions; and Dr. Baer, in his *Alcoholismus* (Berlin, 1878), quotes Prof. Hermann, of Zurich, who, after experimenting with blood mixed with alcoholic vapour, describes the result as follows:—"It soon became apparent that the yellow blood chains or rolls, separate into their corpuscles, growing gradually paler until they wholly vanish." And Prof. Dogiel (*op. cit.*) says that alcohol rapidly causes the amœboid movements of the white corpuscles to cease, and that at a certain concentration the alcohol dissolves both the white and the red corpuscles. This fact is further confirmed by the condition observed in alcoholized blood when out of the body. Prof. Dogiel observed that blood from an animal under the influence of alcohol coagulates more slowly, and yields less fibrine than normal blood. He further found that if ethyl-alcohol be added to blood drawn from an artery, putrefaction is retarded. This would seem to indicate that the rate of putrefaction is very considerably determined by the amount of alcohol present in a corpse. He also found that arterial blood obtained from an intoxicated animal decomposes more quickly than the normal blood. Prof. Dogiel does not explain this, but it seems probable that it is because alcohol prevents healthy blood oxidation, and checks the removal of waste; thus the blood becomes impaired and fetid, and when let out of the body, the alcohol evaporates, and the decomposing matters already in the body will then, of course, more rapidly break up than would healthy blood.† If the blood contains about

Dr. Dumas, the physiologists Böcker and Virschow, Dr. Baer, Prof. Hermann, and Prof. Dogiel on the same.

* See *De alimentorum coctione experimenta nova* (Berlin, 1834), and *Die Wirkung des Branntweins in der Trunksucht*, in Hufeland's *Journal für pract. Heilkunde*, April, 1841.

† An indicator of impoverishment of the blood is the hair. In an old work, entitled *Letter on the Unwholesomeness and Destructiveness of Fermented, Distilled, and Spirituous Liquors*, which

one per cent. of alcohol the vital functions are extinguished, as the flame of a candle is, in air containing a certain proportion of carbonic acid. About one-half per cent. of alcohol in the blood produces drunkenness so profound that all but the purely animal centres of nerve-life are in a state of suspended animation; life continues, but only as the flame of a candle burns smokingly in air surcharged with carbonic acid.

Alcoholic degeneration of the blood in relation to the nutrition of the tissues.

Thus the whole process of nutrition becomes vitiated through the ingestion of alcohol. The blood, impoverished itself, and robbed largely of oxygen (the means necessary for its purification), can only partially fulfil its offices of carrying new matter to the tissues, and of removing the used-up tissue; and the alcohol, at the same time, hardens both the materials for new tissue-making in the blood, and the refuse matter; and this refuse, which in the ordinary course of healthy conditions would be cast out, is largely retained.

Results of Dr. Böcker's experiments regarding alcoholic tissue-preservation.

The just mentioned Dr. Böcker, by a well-devised and carefully executed series of experiments, proved that the presence of alcohol in the living system actually diminished the sum total of elimination of effete matter daily.

The character of the alcoholic tissue-preservation is further demonstrated in its action on the secretions from the kidneys. It is well known that alcohol increases the quantity of urine, but it is not equally well known that the secretion of urea, which forms about half the solid matter in the urine, and is the chief conveyancer out of the body of nitrogenous waste, is diminished by the action of alcohol, and that the portion by this means left in the body is a deadly poison to it.

§ 35. But the harm alcohol works to the whole nutrition is further intensified by its waste of water.

Water, as was said in the introductory remarks on

was republished in 1750, Dr. Hales, a physician distinguished for his careful physiological investigations, states—"It is the well-known observation of the dealers in hair for wigs, that they can distinguish the dram-drinker's hair by the touch, finding it harsh and dead-ended and unfit for use. . . . It is also found that these pernicious drams not only alter the quality, but also, by their drying and corrosive power, lessen the quantity of hair; and, what is a melancholy proof of the great prevalence of this wicked practice, there is now so much less hair to be bought among the lower people."

physiology, is even more important to life than foods are, and therefore a permanently continued insufficiency in the supply of water is even more injurious than a comparative insufficiency of food.

Water the scavenger and cleanser of the body, inside as well as outside.

Water is the means for cleansing the inside as well as outside of the body. If a considerable portion of salt * meat, for example, has been ingested, water is profusely secreted for the dilution of its sharp principle and to wash it out. The blood, in consequence of this extra demand, becomes thick and unable to supply the necessary fluids to the tissues; hence a call for water, *i.e.*, thirst.

Now alcohol, besides being dangerous to the digestion, blood, and tissues (in the measure that it is undiluted), and hence forcing the body in self-defence to dilute it with water (as it does an over-dose of salt, for example),

* In his prize essay *On the Use and Abuse of Alcoholic Liquors in Health and Disease* (London, 1849), Dr. William B. Carpenter admirably exposes the assumed resemblance between alcohol and salt as an essential to health, or at least a healthful commodity. He says, "It has been maintained that although alcohol cannot itself serve as an article of nutriment, yet that, like salt, it is a valuable adjunct to other articles; and that, although in large quantity it may be decidedly noxious, yet that in small it may be very beneficial. Now, strange to say, the substance with which it has been thus compared is that of all others to which it will least admit of being truly likened. For salt is not a mere casual adjunct to our necessary food, but is itself an indispensable ingredient of our diet. It is contained in large proportion in the blood, and in every fluid that is secreted from it, and enters into the composition of most of the tissues. It is present, too, in most of the ordinary articles used as food, vegetable as well as animal; and when this natural supply is deficient, the instinctive craving, both of man and animals, leads them to resort to other sources, from which their bodies may derive the supply necessary for the maintenance of their normal or healthful constitution. Moreover, there is a very beautiful provision in the economy for the immediate excretion of any superfluity of this substance, which passes out of the body nearly as rapidly as it is taken in; so that it is prevented from ever accumulating to an undue amount in the blood; and the only mischief which an overdose of it can occasion is the production of a temporary irritation of the stomach, occasioning a craving for water, which speedily works a cure by carrying off the offending matter. Now, all that salt *is*, alcohol *is not*. It is *not* one of the proper components of the blood or of the tissues, and its presence in the circulation is entirely abnormal. There is no instinctive or natural craving for it."

has, as before stated, a chemical affinity for water, and therefore occupies it, in spite of the protests of the body that no more can be spared.

And thus we have one source of the "*drink-crave*," which, as will be shown later on, becomes at last, by the degeneration of the nervous system, almost like a constitutional need. "If drinking be long continued," says Dr. Austin Flint (*op. cit.*), "the assimilative powers become so weakened, that the proper quantity of food cannot be appropriated, and alcohol is craved to supply a self-engendered want"—*i.e.*, the want first engendered by the deluding action of alcohol is met and momentarily beguiled, only to be re-created by the originating agent of the want.

The "drink-crave" a result of thirst.

Dr. Flint on this point.

The foe is met by the system, at the very entrance (the mouth), by water. Instantly that alcohol enters the mouth, it is mixed with a profuse secretion of saliva, yielded by the salivary glands in obedience to the signal from the nerves in the mouth communicating with them. Of course the same demand for water is made everywhere throughout the body, in order to quench the flames of the burning liquid as it enters the stomach, as it courses through the blood-vessels, and as it is expelled from the system.

It is well known that, after a night's drinking bout, the drinker's mouth in the morning is hot and dry. Why? Partly, no doubt, because of temporary paralysis of the salivary gland nerves, but also because the drain upon and waste of the water of the system has been too great to admit of a sufficient preparation of saliva in time for breakfast.

The exaction made by alcohol upon the water of the system.

And when we remember that the body consists of from seventy-five to eighty per cent. of water, and that saliva—so essential to digestion under the best circumstances *—is more necessary than ever when the whole nutritive system and processes have been weakened and deranged—it becomes still more apparent how much harm alcohol does to the body.

Owing to ignorance about alcohol, the drinker, if he can, meets the body's demand for water with some alcoholic

The system's need of water mis-

* "The ptyalin—an albuminous ferment—is contained in the saliva, and its function is the conversion of the insoluble starch into soluble dextrine. Hence the mischief done to infants by giving starchy food, they having no ptyalin secreted to digest it."

understood as a need for alcohol.

drink, *i.e.*, alcohol and water, but he feels only partial satisfaction therefrom, because the water found in the drink he takes has only been enough to partially satisfy the water demand.

Drinkers of alcoholic beverages decry water-drinkers for the quantities of cold water they pour down their throats. As a matter of fact—incontestable fact—alcohol-drinkers take a great deal more of cold water than do water-drinkers. There is, of course, no essential difference in the systemic construction and needs of an alcohol and a pure-water drinker. Both require an equal amount of water for the performance of their life functions. They obtain about the same amount of water from their foods, although, as a rule, the pure-water drinker eats more than the alcohol-drinker, and therefore, perhaps, ordinarily speaking, gets somewhat more water from his food. But as to the ingestion of water as water, the alcohol-drinker *must* drink a great deal more than the water-drinker, because not only is the alcohol-drinker's system compelled continually to wash out and dilute the alcohol, but the alcohol itself also calls for water on its own account; hence further thirst, the call for more water; and the call is met, but only in connection with more alcohol. And the more anxiously the system cries out for pure water to quench its thirst, the larger and stronger doses does the ignorant victim of alcohol pour down his throat; and if not stayed by the hand of Mercy, his thirst will not be slaked except by the waters of Death.

The mischief alcohol does to the blood-vessels.

§ 36. But it is not only the blood itself that is harmed by alcohol; for just as it wounds and scorches the mucous membrane of the stomach, so it ruins the blood-vessels.

Dr. James Edmunds on this point.

In his lecture on *Alcohol as a Medicine* (London, 1867), Dr. James Edmunds says—

"The blood carries certain earthy matters in it in a soluble state, these earthy matters being necessary for the nutrition of the bones and other parts of the body. You all know that when wine is fermented and turned from a weak sweet wine into a strong alcoholic wine, you get what is called a 'crust' formed on the inside of the bottle. What is that crust? Why is it formed? That 'crust' consists of saline or earthy matters which were soluble in the saccharine grape-juice, but which are insoluble in the

alcoholic fluid. We find in drunkards that the blood-vessels get into the same state as the wine bottles from the deposit in their texture of earthy matter which has no business to be deposited, and forms, as it were, a 'beeswing' or 'crust' in the blood-vessel of the drunkard, in his eye, and in all the tissues of his body. The result is the tissues get weak and brittle, and in performing their duties they break down; thus the blood-vessels burst under a little unusual strain, and we get apoplexy and sudden death, and paralysis and slow miseries of all sorts."

In a letter to me, March 24, 1884, Dr. Edmunds thus elucidates this point:—"Just as when earthy salts are thrown out of solution in ordinary water by merely boiling it, a fur is deposited inside the kettle; so the wine, during its maturing process, deposits certain saline earthy matters on the inside surface of the bottles, forming what is called the 'beeswing,' and wines in the blood make similar deposits on the sides of the blood-vessels. The 'beeswing' looked for by the drinker in the wine-bottle, is looked for by the physician in the eye of the wine-drinker, as the well-known *arcus senilis*. This *arcus senilis* is only an outward and visible sign of general internal change, such as earthy degeneration of the arteries, fatty degeneration of the heart, cirrhotic degeneration of the liver and kidneys." *

Sir James Paget's warning against surgical operations on moderate drinkers.

And with such attested results on the blood and tissues from the use of alcohol, it is no wonder that Sir James Paget should warn his disciples against operating on drinkers, even "moderate" ones.

"Be rather afraid," he says, "of operating on those, of whatever class, who think they need stimulants before they work; who cannot dine till after wine or bitters; who always have sherry on the sideboard; or are always sipping brandy-and-water; or are rather proud that, because they can eat so little, they must often take some wine. Many people who pass for highly respectable, and who mean no

* Dr. Henry Munroe, in his lecture on the *Physiological Action of Alcohol* (*Temperance Tracts*, New York, 1874), states that "the eminent French analytical chemist, Lecanu, found as much as 117 parts of fat in 1000 parts of a drunkard's blood, the highest estimate of the quantity in health being 8¼ parts, while the ordinary quantity is not more than two or three parts; so that the blood of the drunkard contains forty times in excess of the ordinary quantity."

harm, are thus daily damaging their health, and making themselves unfit to bear any of the storms of life."

When the effects of alcohol on the nervous system come under consideration, it will be seen how the blood-vessels suffer still further by the paralyzing tendency of alcohol on the nerves controlling the vascular system.

Various theories as to what becomes of alcohol after its entrance into the blood.

§ 37. The next point regarding alcohol and the blood is what becomes of the alcohol after it has entered into the blood-current. No point in the whole alcohol controversy has been more hotly debated than this, and even to-day the medical world and the physiologists stand divided upon it, in numerous camps, under many leaders.

Baron Liebig's theory.

The first really earnest endeavours of science to clear up this point are of comparatively recent date. The first theory to receive any general adherence was that started by Baron Justus von Liebig, some forty years ago, viz., that as alcohol was obtained from the heat-generating foods, it must be a heat-generator; that just as alcohol in being burned in a lamp is transformed into carbonic acid and water, while its energy is liberated as heat, so likewise is it oxidized in the body, and transformed into the same two compounds; and hence alcohol must be a heat-generator, and, in that sense, a food. The absolute proof recently obtained that a chief effect of the ingestion of alcohol is the reduction of heat, of course disproves this notion *in toto;* but there are various other effects, which, as will be seen later on, militate against Liebig's idea.

His theory is, at best, based on pure assumption, viz., that alcohol is to be classed with sugar and fat as special heat-generators of the body.

Dr. Flint on the function of fat.

Dr. Austin Flint (*op. cit.*) says on this point, "There is no sufficient ground for supposing that fat has any such exclusive function" (that of producing heat); "its office is in connection with the general process of nutrition." As to sugar, he says, "In the present state of science we are only justified in saying that sugar is important in the process of development and nutrition at all periods of life. The precise manner in which it influences these processes is not fully understood."

Dr. C. R. Drysdale on the relative

And Dr. C. R. Drysdale, in a lecture on the death-rate of abstainers and non-abstainers (London, February 25,

1884), wittily observed that if alcohol was a food, then another heat-producer, paraffin, might as well be counted in on the same grounds.

merits of alcohol and paraffin as respiratory foods.

Liebig's theory gained numerous adherents, and even to-day holds a place in the medical world. Some fifteen years elapsed before any effective opposition could be made to it, but in 1860 there appeared a work by three leading French physicians, L'Allemand, Perrin, and Duroy, entitled *The Rôle of Alcohol* (Paris, 1860), which took the opposite view, declaring that alcohol leaves the body just as it enters it, that is, as alcohol.

Theories of L'Allemand, Perrin, and Duroy as to what becomes of alcohol.

From numerous most careful experiments on animals —compared with such as it has been possible to make on man—which established the identicalness of alcoholic effects on beast and on man, they concluded that alcohol is neither oxidized, *i.e.*, converted into carbonic acid and water, nor changed into aldehydes and acetic acids in the organism, but that it remains unchanged, and is expelled as alcohol through the lungs, skin, and especially the kidneys. Says Perrin, in his article on the *Physiological Action of Alcohol* in the *Encyclopædic Dictionary of Medical Sciences* (Paris, 1865), "There is not found in the blood or the expired air any trace of the transformation or destruction of the alcohol. It accumulates in the nerve centres and in the liver, and finally it is excreted through the diverse channels of elimination. Hence the conclusion that the alimentary *rôle* of alcohol has no other pretence to a scientific basis than that of an experimental error."

Dr. Perrin Prof. J. Bauer, Drs. Bouchardat and Sandras on the same.

Neither of these opposing theories have been universally accepted, and the great body of physicians stand between these two—that is, they believe that alcohol is in part oxidized and in part excreted, unchanged; but they differ widely as to the amount oxidized as well as the form of oxidation. The followers of Bergeron think that most of the alcohol, after remaining some time, is expelled, and a small part only oxidized.

Prof. J. Bauer, on the other hand, in his *Foods and Dietetic Cure for Sick People*, which forms the first part of Prof. Ziemssen's *Handbook of General Medicine* (Leipsic, 1883), affirms that the greater part of alcohol is oxidized, "being changed into carbonic acid and water," while "a

small portion of the alcohol is in unchanged form put forth from the body through the skin, lungs, and kidneys."

Others—as, for instance, Drs. Bouchardat and Sandras, and their large following, who hold that alcohol is partly oxidized and partly excreted—claim that the oxidized portion is converted into acetic acid. An infinite variety of opinions exists as to how and in what proportion alcohol is oxidized or excreted.

Difficulty of arriving at certain conclusions.

§ 38. It is a difficult matter to deduce a tenable theory from analysis, comparison, and combination of the various leading opinions on this point. One thing, however, seems clear, that the Liebigian theory cannot be correct, because, were alcohol a heat-generator, the heat of the body must be increased by the taking of alcohol, which, as we now know positively, is not the case.

This and other arguments against the theory of Liebig will be considered later on.

On the other hand, the failure of the most careful and exact efforts to obtain from the excretions of the body anything like the ingested amount of alcohol, goes strongly against the theory that all the alcohol passes through and out of the system, unchanged.

Alcohol is a baffling and mysterious thing. Other poisons, vegetable as well as mineral, usually single out some specially vulnerable part of the system in which to do their fell work; but alcohol attacks the whole (with some special preference for the liver and brain), by this diffusion making both the apparent degeneration of the system more generally even, and hence less conspicuous, and the tracing of its results also more difficult. But as under some circumstances portions of alcohol certainly do disappear, it must be that the body, in some manner unknown to us, is able to dispose of a certain amount thereof.

If Science would turn its ferreting eye in this direction, it may be that a clue to this mystery would be found in the discovery of some compound in the body of the drinker, not existing in that of the non-drinker. It is certainly not an unreasonable supposition that some of those hydrolytic (hidden) ferments, whose office and functions so puzzle the physiologist, may have a part in this mystery also.

A solution possibly to be found in the action of hydrolytic ferments.

One thing can be affirmed, that in whatever way the body may be able to dispose of alcohol, there is in that fact no valid argument weighing against the evidence that it is out and out a poison, foreign to the system (being found, if at all, only in infinitesimal traces in the excrementitious matters), and that it damages and deranges the whole nutritive and circulatory processes, and also, as will presently be shown, particularly injures the nervous system.

When alcohol is taken in large doses, we know that some of it is excreted in unchanged form. A small part goes direct from the stomach, out, as refuse; some is evidently exhaled, judging both from the fœtid breath and from the fact that a small percentage of the ingested alcohol can be traced in the exhalations.

Dr. E. G. Figg on the presence of alcohol in the breath.

Dr. E. G. Figg, in his lecture *On the Physiological Operation of Alcohol* (Manchester, 1862), says, "Though I might propound a very ingenious theory to show that the human stomach, with its purse-like cardiac opening, is an elastic bottle, and that the affinity of alcohol for water rather than for either of its elements, would preclude the possibility of its decomposition, I prefer tangible facts to plausible speculation. Having induced an individual to swallow a glass containing two ounces of spirit (eleven degrees above proof), I made him breathe through a tube, the opposite extremity of which was submerged in a tumbler containing two ounces of water, covered with a bladder skin to prevent evaporation; the fluid became speedily impregnated with the characteristic odour of alcohol. To meet the scepticism which might endeavour to establish an analogy between this fluid and the essential oil of lavenders or other fragrant substance, the perfume of which has been known to prevade the atmosphere of a room for weeks (without any appreciable diminution in the quantity or quality of the original mass), and to anticipate the inference that the bulk of the alcohol had actually been decomposed and appropriated, though from its volatile nature an infinitesimal portion had escaped that process, and was then being discharged at the lungs, I varied the experiment by causing a person intoxicated

for several hours to give sudden short expirations through a *tin* funnel used for decanting liquids, the narrow extremity of which was in proximity to a gas-jet. The contemporaneous evolution of blue lambent flame announced the presence and density of the spirit."

Alcohol discovered in the expirations. See Dr. Hinton's *Physiology for Practical Use* (London, 1880).

The writer of the article *Alcohol* in Dr. James Hinton's *Physiology for Practical Use* (London, 1880) says, "If the breath of a person who has drunk so little even as a glass of light ale, containing three drachms only of spirit, be conveyed through a test solution of chromic acid (one part bichromate of potash in three hundred of pure sulphuric acid, its delicacy is so great that the presence of $\frac{1}{120}$ of a grain of alcohol can be detected by it), the presence of alcohol can be attested by a distinct colour-change."

Alcohol also present in skin evaporations. See Dr. E. G. Figg.

Alcohol is also under these circumstances traceable in the urine, and in all probability it is also thrown off by the skin. Dr. E. G. Figg (*op. cit.*) says, "In alliance with the organs of the lungs and liver we have the *skin*, a depurating medium. . . . In cases of hepatic obstruction, as calculi in the biliary common duct, the onus of carrying off the bile is thrown on the skin and kidneys, as evidenced in the surface of the one and the colour of the secretion of the other—a responsibility in which the lungs and intestines do not participate, though the circulation has equal access to all. The fact that the skin aids the liver in effecting the exit of noxious elements in the circulation, accounts for the pustular excrescences on the face and body of the drinker. It is not the agency of the alcohol which produces them, but the carbon; the partial result of the disintegrated saccharine and adipose tissues, retained in the arterial vessels by the alcohol monopolizing the pulmonary capillaries in effecting its escape."

Dr. T. L. Brunton on the same.

Dr. T. Lauder Brunton (*op. cit.*) says, "The skin is at first soft, with a slight satiny feeling, from which I have seen Prof. Neumann discover the alcoholic tendencies of a patient; and perspiration is easily induced. Later on, the skin becomes thick and discoloured, sometimes red and sometimes sallow, and becomes liable to various diseases, the best known of which is acne rosacea, often called bottle-nose. Besides this, the skin may be affected with inflammation of various sorts, leading to the

formation of ulcers, vesicular, scaly, or pustular eruptions, boils, and abscesses."

And as the skin, besides its depurating office, is also the moderator-valve of the heat in the body, this affection of the skin is of great consequence to health.

As to the action of the kidneys in the elimination of alcohol, an eminent physician writes to me that having with a catheter drawn off the urine from a patient under temporary alcoholic paralysis of the bladder, who was therefore unable to pass it naturally, he found by careful distillation that this urine contained ·2275 per cent. of alcohol; *i.e.*, rather more than $\frac{1}{400}$ of its volume consisted of absolute alcohol.

A certain amount of alcohol has been found in various parts of the body of persons who have died in an intoxicated state. L'Allemand, Perrin, and Duroy (*op. cit.*) found alcohol in the proportion of 1·34 per cent. in the brain. They were, however, by no means the first to make such observations. The late Rev. John Guthrie, in his *Temperance Physiology* (Glasgow, 1877), quotes the following from the statement made by Dr. James Kirk in an address to the Vale of Leven Temperance Society (in 1830) as to a post-mortem examination:—"'I dissected a man who died in a state of intoxication after a debauch. The operation was performed a few hours after death. In two of the cavities of the brain, the lateral ventricles, was found the usual quantity of limpid fluid. When we smelled it, the odour of the whisky was distinctly perceptible; and when we applied the candle to a portion in a spoon, it actually burned blue—the lambent blue flame, characteristic of the poison, playing on the surface of the spoon for some seconds.' Some doubts having been expressed in regard to these and other cases of alcohol being detected in the brain, Dr. Ogston, of Aberdeen, said at the time, 'I am happy to be able to add one case to their number. The body of a woman, aged forty, of the name of Cattie, who was believed to have drowned herself in a state of intoxication, was found on the 23rd of August, 1831, in the Aberdeenshire Canal. In company with another medical man, I was requested to examine the body, in order to report the cause of

Drs. L'Allemand, Perrin, and Duroy on alcohol in the brain.

Dr. James Kirk on the same.

death, no one having witnessed the act. We discovered nearly four ounces of fluid in the ventricles, having all the physical properties of alcohol, as proved by the united testimony of two other medical men, who saw the body opened, and examined the fluid.'"

Dr. John Percy on the same.

Dr. John Percy, in his essay* *An Experimental Inquiry concerning the Presence of Alcohol in the Ventricles of the Brain after poisoning by that Liquid*, etc. (Nottingham, 1839), states that by distilling blood drawn from an alcoholized system, he had been able to obtain a fluid which, by its dissolving camphor and burning with a bluish flame, proved itself to be alcohol. In the brain he found proportionately still more, from which he concluded that a "kind of affinity existed between alcohol and the cerebral matter."

Dr. E. G. Figg on the same.

Dr. Figg (*op. cit.*) mentions the following noteworthy case:—"John Carter, a young athletic man, drank a *pint of rum* at one effort, dying comatose half an hour subsequently. On the authority of a coroner's warrant, two medical men (myself one) opened the body. The mouth, œsophagus, stomach, cardiac cavities, and lungs presented no appreciable trace of the rum. Even on opening the cranium, we found nothing to warrant a supposition of its presence. On making a section into the *lateral ventricles, however, it flowed out in considerable quantities*, altered in colour, with its characteristic odour."

Herr Kuyper on the presence of alcohol in the brain.

On this same point, the *Lancet* (October 27, 1883) says—"In the *Zeitschrift für Analytische Chemie* (Journal of Analytical Chemistry) Herr Kuyper records the fact that he has ascertained by distillation the presence of alcohol in the brains and liver of two persons who had fallen into the water when drunk and had been drowned. In one brain he found about one-fifth of a cubic inch of alcohol, and in one liver a little over half a cubic inch."

When we come to the consideration of the effects of alcohol upon the nervous system, and the reflex action of the latter on the tissues and vascular system, it will be seen that large doses of alcohol paralyze the nerve centres, and thus the necessary orders for its expulsion, reduction, or change—which are given by the nervous system in

* A gold medal was awarded by the Medical Faculty of the University of Edinburgh for this essay.

the case of smaller doses—are not forthcoming, and hence the enemy remains in possession of the strongholds until the nervous system can rally sufficient forces to give the requisite commands.

Effects of alcohol on the temperature of the body.

§ 39. The consideration next in order is that of the effect of alcohol on the temperature of the body. In warm-blooded animals—man included—it depends chiefly on two conditions, viz., the amount of combustion within the body, and the radiation of heat from the body. These two conditions mutually assist each other in keeping up an even temperature of the body, about 98·6° Fahr.

The functions of life are greatly affected by even slight thermal changes, and only a few degrees above or below the normal mean will extinguish life; therefore anything which causes great fluctuations in bodily heat is dangerous to health and life. It is at present generally admitted that alcohol lowers the temperature of the system, but not until recently has this fact been fully established.

Opinions that alcohol reduces the temperature of the body—by Drs. Prout, Nasse, Dumeril, Dumarquay, and Lecompt, Lichtenfels and Fröhlich, Dr. Davies, Dr. Smith, Prof. Binz, and Drs. Dujardin-Beaumetz and Audigé.

As early as 1811, Dr. Prout, of Aberdeen, announced that alcohol reduced instead of increased bodily temperature, as his experiments with moderate doses of alcohol had shown a reduction in the exhalation of carbonic acid. In 1845 the German physician Dr. Nasse, and in 1848, Drs. Dumeril, Dumarquay, and Lecompt reached similar conclusions. In 1852 the Germans Lichtenfels and Fröhlich proved that not only moderate but small doses of alcohol caused reduced temperature. Were Liebig's theory of alcoholic combustion into carbonic acid and water correct, the amount of carbonic acid exhaled would be increased, as well as the heat raised.

In 1850, Dr. Davis, of Chicago, U.S., published the results of his extensive series of experiments as to the effects of different articles of food and drink on the temperature of the body, as well as the amount of carbonic acid exhaled from the lungs. He says—

"These experiments proved conclusively that during the active period of digestion after taking ordinary food, whether nitrogenous or carbonaceous, the temperature of the body is always increased; but after taking alcohol, in the form of either fermented or distilled drinks, it begins

to fall within half an hour, and continues to decrease for from two to three hours. The extent and duration of the reduction was in direct proportion to the amount of alcohol taken."

Notwithstanding these and many other convincing testimonies—by Dr. Edward Smith,* of London, for example—the question remained almost at a standstill until the publication in the *Practitioner* of September, 1869, of Prof. Binz's article on the *Influence of Alcohol on the Temperature of the Body*.

This revived the issue. Prof. Binz stated that from numerous experiments which he had made with small doses of alcohol, using the centigrade thermometer, he had found that the experiments proved that small quantities of alcohol lowered the temperature considerably. Half a glass of light hock, or a small glass of cognac, caused a fall of from 0·4° to 0·60° in a very short time. In experiments upon dogs with fatal doses, there was a fall amounting to between 4° and 5°, in from one to two hours, at which period death took place.

The recent magnificent experiments on pigs by Drs. Dujardin-Beaumetz and Audigé, at Paris (*La Tempérance*, No. 1. Paris, 1884), seem to absolutely preclude the possibility of further controversy on this point—that the invariable result of the use of alcohol as a drink is the lowering of the temperature, even though at first it may increase it.

Practical proofs that alcohol reduces the temperature of the body.

During the campaign in 1812 in Russia, so fatal for France, it was found that almost all those soldiers who used alcoholic drinks succumbed to the cold and fatigue, while only a small proportion of abstainers fell victims to these rigours.

The Esquimaux, Greenlanders, Laplanders, and other inhabitants of the coldest regions of the globe, have practically experienced that alcohol unfits them for enduring their climates.

As regards the Laplanders; some years ago it was feared by the Swedish Government that the race would freeze to death because of drink. An intelligent Laplander, while on a visit to Stockholm, was converted to total abstinence, and became its apostle in his native land with

* Author of *Practical Dietary*, London, 1865.

such success that the fears of the extinction of this interesting race have disappeared.

Alcoholic drinks are generally dispensed with in Arctic expeditions, experience having shown that they chill instead of warm. In the mercantile and war navies of several countries the use of alcoholics by their sailors is prohibited. In the English navy this is not done, but a petty inducement as a premium on abstention is offered, and good coffee and tea are furnished. It is the invariable testimony that abstainers are best capable of enduring fatigue and withstanding the fury of the elements.

Plausible theories for reconciling the fall of temperature with the Liebigian combustion theory.

Some defenders of Liebig's theory have sought to reconcile the idea of the oxidation of the alcohol, and the fall in bodily temperature, by asserting that the heat generated in the combustion of the alcohol is rapidly reduced by skin-radiation resulting from the effects alcohol exerts in dilating the capillaries.

Even though this reasoning were sound, it can scarcely be said to mend matters! Liebig's disciples defend the use of alcohol only on the ground of its being a respiratory food. But if the heat thus generated is more than balanced by the heat given out, it is not easy to see what good can come from its use as a heat-generator.

Were this explanation a true one, there is surely that in it which should lead the advocates of the use of alcohol to pause.

What a truly extraordinary procedure on the part of the body—to surrender warmth so necessary to health, and which under normal circumstances it would never let go! It would almost seem, figuratively speaking, as if alcohol, taking life by the throat, forced the life-current to spring to the surface for air and strength to combat its throttler.

As we have already seen, it is chiefly by means of skin-radiation of heat, properly proportioned to that generated by combustion within, that the mean temperature is maintained; and the rapidity and amount of such radiation depends on the porosity of the skin, and the intimacy of the connection between the blood-filled capillaries and this safety-valve. Now, fat is a non-

conductor of heat, and, being placed immediately under the skin, partially prevents the radiation of heat. (Hence one reason why fat people suffer so much from heat.) But if the Liebig radiation theory were true, fat drinkers would scarcely suffer any reduction in bodily temperature as compared with persons in normal flesh.

Under certain conditions taking a small quantity of alcohol causes dryness of the skin, due probably to a sort of cutaneous nerve-paralysis. By the lessened exhalation of vapour from the skin under these conditions, loss of heat may be checked and the temperature raised. This increase of heat is not generated by the alcohol, which invariably reduces temperature, but is due to the shutting up within the body of the heat generated by the oxidation of food, together with various noxious elements which under natural conditions are thrown off by the skin.

The effect of alcohol on the nervous system.

§ 40. The last and most important physiological consideration in the study of alcohol is that of its effect on the nervous system.

The innumerable strands of the grayish (in essence unknown) substance which pervade the tissues everywhere, and which in their totality form the nervous system, are more delicate, and their soundness of even more importance to health and life, than is the soundness of the tissues ; or, more exactly speaking, the nerves are of the first importance, because it is first through them that the tissues are operated upon. The nervous system is the immediate agency of the life-principle, protecting, guiding, and controlling the various life manifestations.

It has been found that the nerves do not all have the same general functions, and they have therefore been classed in two large divisions :—

Physiology of the nervous system.

1. The *Cerebro-spinal*, including the brain and spinal cord, with the nerves proceeding from them. Their fibres are chiefly, though not exclusively, distributed through the skin and the other sensory organs, and through the voluntary muscles.

2. The *Sympathetic division*, which consists of, *firstly*, a double chain of ganglia and cords extending in front of the whole spinal column, and from which proceed branches to the cerebro-spinal nerves. *Secondly*, various ganglia,

plexuses, and nerve fibres, extending branches to the thoracic and abdominal viscera. *Thirdly*, a series of nerves controlling the blood-vessels, and known as the vaso-motor nerves, and which are connected with both the cerebro-spinal and sympathetic systems.

The intertwining and union of these systems of nerves, the mutual interdependence between them and the vascular system, the indissoluble union of mind and body, all combine to constitute the great difficulty in the way of dealing clearly with this part of the subject, since for the sake of clearness we are constantly compelled to distinguish between the interlacing psychological and physiological facts.

Dr. James Cantlie on the character and functions of the nervous system.

In the *Influence of Exercise on Health*, contributed to the *Book of Health* (London, 1883) by Dr. James Cantlie, he says, "The voluntary muscles are under the direction and regulation of the CEREBRO-SPINAL *system*. This consists of the *brain*, resident in the cranium or brain-case, and the prolongation from it that goes down the spine under the name of 'pith,' or *spinal cord*. From the brain and spinal cord NERVES pass to the muscles, carrying the impulse to the muscles; they are called *motor* nerves. A nerve on reaching a muscle breaks up into fine filaments, and supplies every part of the muscle. It is by the medium of the nerves that the will acts on the muscles; the impulse generated in the brain, flies down the spinal cord and along the nerves to a muscle.

"The nerves are like telegraph-wires laid on between station and station; the originating battery, the brain, sends an impulse along the wires, the nerves, to work a machine at the other end, the muscle. But just as it is possible to send opposite electric currents along one wire, so in a nerve we have opposite currents. The one we have just spoken of is a downward current, from the brain to the muscles; but there is also an upward current carrying messages from the skin and muscle to the brain; these nerves are called *sensory* nerves, or nerves of sensation, because they carry the impressions of our sensation to the brain, where the knowledge gained from them is converted into motion, or stored up as memory, etc., for future use. The two sets of impulse are conveyed along separate fibres that are firmly bound together; but close to the spinal cord the fibres separate, and we see a motor and sensory bundle.

"The involuntary muscles of the body are under the regulation of a separate system of nerves, which, as it presides over the organs of the more animal or vegetative part of our existence, is called the *vegetative* system. This consists of a double chain of small nervous masses called *ganglia* united together by nerves. The chains are arranged on either side of the spine. From the ganglia, nerves pass to the heart, lungs, and the organs of the alimentary canal, liver, pancreas, etc.—in fact, to all the abdominal and thoracic viscera. On account of the ready disturbance of all parts of this system, when any one part is excited, it is called the *sympathetic* system.

"Hence we find we have *two* sets of muscles presided over in the main by two sets of nerves: the voluntary muscles by the cerebro-spinal system, and the involuntary by the sympathetic. The chief difference between the two sets is that one, the sympathetic system, acting on the heart, lungs, and digestive system, continues in action from the birth to the death of the individual, knowing neither rest nor stoppage, as we understand rest; whilst the other, the cerebro-spinal system presiding over the voluntary muscles, requires long intervals of quietude provided for by sleep."

Parallel effects of alcohol on the nervous and muscular tissues.

As it is first through the action on nerves that the tissues are reached, it is plain that the affection of the nerves is of prior importance to that of the tissues, though it is also true that the effects conveyed through the nerves to the tissues recoil on the nerves; for, like the rest of the body, the nervous system goes through the processes of decomposition and renovation, and therefore is dependent for its effectiveness on food; and as alcohol interferes with the digestion and degrades and deteriorates the whole process of nutrition, it follows that it harms the nervous system, and hence the conclusion that, as alcohol ruins the body, so it ruins the mind. Indeed, we trace alcoholic effects on the nerves parallel with those on the muscular tissues; such as degeneration of the nerve-tissue, the bursting of blood-vessels, and flooding the brain with blood, etc.

As to the effects of alcohol on the nervous system, except in the grosser manifestations—those of "jollity" and drunkenness—there is little unanimity of opinion among

experts, and as yet their research has covered but a comparatively small portion of the whole field.

It has long been a disputed point whether the peculiar sensations conveyed by the brain after the ingestion of alcohol are the result of reflex action,* or of direct action on the nervous system. It seems to be settled now, whatever the subsequent reflex action may be, that the first action of alcohol on the brain is made direct through the blood.

The first action of alcohol on the brain is direct.

Dr. Baer (*op. cit.*) says, "Experiments on brute and man teach that in a comparatively short time after its injection, subcutaneously or into the food channels, alcohol disappears from its place of introduction, being taken into the blood." And he proves that the primary act of alcohol in the system is its entering the blood, by the established fact that drunkenness is produced more rapidly through the direct injection in the blood than by its introduction into the body through any other channel.

Dr. Baer on this point.

It seems, therefore, probable that some portion of the alcohol, the moment it enters the mouth, is drawn into the blood, which hies direct to the brain with it.

Possible solution of the riddle why alcohol, when taken rapidly, intoxicates less and more slowly than when gradually taken, by sipping.

In this, it seems to me, may be found the solution of one of the hitherto most puzzling riddles of the alcohol question, viz., why a man who sips his drink gets more quickly drunk than he who gulps it down almost at once. For, if it were—as most authorities claim that it is—only by reflex action that alcohol operates on the system, then, obviously, an ordinary dose, swallowed almost at once, would more quickly intoxicate than would the same dose slowly sipped.

* "By reflex action is meant the power which nerve-centres possess of receiving and perceiving an impression brought to them by a nerve from some part, and, as the result, of transmitting an impression through another nerve to some other, it may be distant, part. Thus an impulse conducted by nerves from without inward, reaches a centre, and by that centre, as the result, an impulse is sent through other nerves which conduct it from within outward. So, it is said, an impression or impulse is reflected by a nerve-centre. If, for a familiar instance, the skin be pricked, the part is suddenly withdrawn. An impression is conveyed from the spot injured through a nerve to a nerve-centre, and hence another impression is sent by the centre through another nerve to muscle, which then contracts and moves the part away."—W. S. Savory, surgeon to St. Bartholomew's Hospital, in his introductory chapter in the *Book of Health* (London, 1883).

If we remember the processes—that the saliva, on alcohol's entrance into the mouth, instantly dilutes it with water (and, for all that we know, in other ways minimizes the harmful effect before it enters the stomach); that in the stomach all of the alcohol—except the very small portion of it that goes out with the refuse—is again diluted, as far as is practicable, by the gastric juice, in order to still further lessen its evil power before it enters the blood;—when we bear all this in mind, it will be seen that in the case of the alcohol being slowly sipped, time would be given to all these defensive functions to act in the completest manner of which the body is capable, and thus the resulting intoxication would be much slighter than in the case of alcohol being speedily swallowed.

But directly the reverse is usually the case. Why? In the first place, during sipping, the vapour of the alcohol is inhaled, and thus instantly taken by the lungs into the blood and thence to the brain. (It is well known that workmen in spirit vaults are intoxicated by inhalation of the spirituous vapours alone.) Secondly, there seems no doubt that sipped wine is usually held in the mouth long enough for some small portion to be drawn directly into the blood from the mouth and thence also to the brain, and, hence, he who slowly sips his alcohol gets more quickly intoxicated than he who, by swallowing it rapidly, subjects it to the more manifold digestive processes, thereby retarding the directness and reducing the force of its assault on the brain.

The action of alcohol on nerves has been a hotly disputed question, and much confusion, largely due to the lack of clear and accepted definitions, still exists on this point.

Division of special nerve-affectants into stimulants and narcotics.

Nerve affectants are generally divided into two groups —*stimulants* and *narcotics*. The difficulty in properly defining these groups is similar to that I experienced in defining foods, because in neither case does there exist authoritative definitions.

It is most unfortunate that science has not yet reached that height of accuracy which would furnish us with authoritative general definitions, because just as much as in our verbal communications it is necessary to have an accepted authoritative meaning for every word in order

that a common understanding may be arrived at by all who use it; just so necessary is strictness in definitions of technical terms and phrases. Confusion in terms springs from and produces confusion in thought, and as regards alcohol this confusion will continue as long as strict definitions of, for example, such terms as food, poison, stimulant, narcotic, moderate, temperate, large, excessive, use, abuse, etc., are lacking.

Various conflicting definitions of stimulants and narcotics by Drs. Billing, Forbes, Headland, T. King Chambers, and T. L. Brunton.

As to stimulants, for example, in his *Principles of Medicine* (London, 1841) Dr. Archibald Billing says—"Tonics give strength, *stimulants call it forth.* Stimulants excite action, but action is not strength. On the contrary, over-action increases exhaustion."

Sir John Forbes wrote an essay of great merit on *The Character of Stimulants* (London, 1848), in which he says—"The healthy fabric should be quite capable of maintaining itself in vigour upon a proper diet, and with a due quantum of sleep and exercise, without any adventitious assistance. But if not, assistance should be sought from alteratives rather than from stimulants, which may produce a temporary excitement, but which tend to destroy the balance of the whole. The very nature of the stimulant is to produce a subsequent depression, and to lose its force by frequent repetition. The depression is proportional to the temporary excitement, and the loss is thus at least equivalent to the gain."

But, taking a great authority in *Materia Medica*, Dr. Headland, we find narcotics defined to mean the same as Dr. Forbes means by stimulants. Dr. Headland says—"Narcotics are medicines which pass from the blood to the nerves and nerve-centres, and act so as first to exalt nervous force and then to depress it."

In his *Clinical Lectures* (London, 1865) Dr. T. King Chambers says, "What is a stimulant? It is usually held to be something which spurs on an animal to a more vigorous performance of its duties. It seems doubtful if on the healthy nervous system this is ever the effect of alcohol, even in the most moderate doses and for the shortest periods of time."

Again taking one of the latest medical opinions, that of Dr. T. Lauder Brunton (*op. cit.*), we find the following definitions:—

"By stimulants we mean those things which seem to increase our vital powers for the time being, and thus to give us feelings of greater strength or comfort. By narcotics we mean such substances as lessen our relationship with the external world. When used to a slight extent, narcotics simply afford pleasure by lessening the restraining or depressing effect which external circumstances exert upon the individual. Small quantities thus allow freer play to fancy. But in large quantities they abolish all the mental faculties, and render the person who has taken them completely torpid and incapable of voluntary thought or action. Their abuse may not only lead to individual but to national disaster. The most important stimulants are alcohol in its various forms, tea, coffee, and cocoa. The most important narcotics are alcohol, tobacco, opium, chloral, and Indian hemp."

Thus, stimulants are so only in seeming, their manifestations are spurious. Narcotics are so only in a physical sense, being in the mental sense liberators of the mind; *i.e.*, mental stimulants when used in moderation; anæsthetics when taken in excess. According to Dr. Brunton, alcohol in moderation stimulates—that is, gives spurious strength; in large doses is a narcotic—that is, a duller of the senses to impressions from the external world.

Dr. Brunton's curious defence of his position.

Apparently for the purpose of fortifying this peculiar position, Dr. Brunton (*op. cit.*), after stating that "a very large quantity of spirits taken at a draught" will produce "great depression, or perhaps even stoppage of the heart's beats," assumes that "the impression made is transmitted by the sensory nerves of the stomach up to a nerve-centre, known as the *medulla oblongata*, at the upper end of the spinal cord, and thence down by the so-called inhibitory, or restraining nerves, to the heart. When taken in smaller quantities, however, the effect is quite different; the impression it makes on the stomach is transmitted to the *medulla oblongata* by the sensory nerves, but instead of being sent down the inhibitory nerves, it is transmitted by the stimulating nerves* of the heart, and thus increases the rapidity and strength of its pulsations."

* This theory of stimulating nerves operating between brain and heart is not proven.

Retaining the division of nerve-affectants into *Stimulants* and *Narcotics*, I will define *stimulant* to mean such food, medicine, or exercise as would in itself be energizing, and will divide *stimulants*, according to their effects on man, into two classes—*Invigorators* and *Prostrators*. Bodily exercise, for instance, ranks among stimulants; whether it acts as an invigorator or prostrator being dependent upon the kind and degree of the exercise and the condition of the body.

Definition of stimulants. Divided into invigorators and prostrators.

Narcotics, on the contrary, are poisons, of a paralyzing nature, and may be divided into two classes; *plain narcotics*, or those whose paralyzing effect is patent, and *pseudo-stimulants*, or those narcotics whose benumbing effects assume the guise of temporary stimulation, inasmuch as their action is expended primarily upon the inhibitory centres.

Definition and division of narcotics.

Hence, among narcotics are found alcohol, chloroform, opium, hemp, betel, tobacco, coca, thorn-apple, henbane, etc.

Most of these narcotics are, in small doses, pseudo-stimulants, and in large doses, plain narcotics. Alcohol is pre-eminently of this double character; a pseudo-stimulant when taken in small doses, and a plain narcotic when heavily imbibed.

With the small—the pseudo-stimulant—dose of alcohol, there is temporarily all the appearance of heightened activity, but the life-forces expend themselves to no purpose—or to a purpose which should not have existed, the necessity to dispose of the intruder.

Meaning of the term pseudo-stimulant, with example.

The paralyzing effect of alcohol on the nerves may be compared to the effect produced on the machinery of a clock, by a gradual reduction of the length of its pendulum; the machinery runs faster and faster, but this activity is valueless—the real principle, the time-keeping faculty, is paralyzed.

Thus the animated appearance, the throbbing of the arteries, the peculiar sparkle in the eye, the flush of the face, and the activity manifested by the drinker are signs of danger.* The extra activity is caused by the sys-

* The angry man shows the same signs—the flaming eye, turgid vein, etc., that, in the case of alcohol-drinking, are claimed as signs of benefit. In both cases, however, the appearance are the results of resentment. The angry man is calling on his reserve force for

tematic effort to avert harm, and originates in the incipient paralysis of the nerves caused by alcohol.

In fact, such signs, when they result from the ingestion of alcohol, are no more signs of healthy action than the downhill velocity of a coach, when the drag is taken off its wheel, is an evidence of safe progress.

As deceptive as the outward manifestations are the inward sensations of ease, pleasure, and comfort resulting from the drinking of alcohol. They are all signs of paralysis.

The starving man, after the acute pangs of hunger have reached the point where paralysis from inanition attacks the nerves, experiences the most agreeable sensations, and sees the most delicious banquets set before him. Similar is the result in the case of death by freezing; when the cold has paralyzed the nerves of sensation, happy visions of shelter and warmth lull the sufferer into the fatal sleep.

A like incipient paralysis of the nerves furnishes the pleasing sensations resulting from the use of alcohol.

Alcohol clearly a narcotic poison.

Alcohol is therefore clearly a narcotic poison, though this fact has long been a matter of dispute. In his well-known *Essay on Drunkenness* (London, 1804), Dr. Thomas Trotter says on this point, "As an article in *Materia Medica*, physicians have referred alcohol to the class of *narcotics;* medicines which induce stupor and sleep, among which are reckoned opium, bhang, conium, belladonna, hyoscyamus, nicotiana, lauro-cerasus, etc. The operation of narcotics has lately given birth to much controversy in medical writing, the one party contending for a primary sedative power in these medicines, which by suspending sense and motion" produce "that condition of the body called sleep. On the other hand, it is argued that the first effects of *narcotics* are stimulant, and that sleep" follows "as a consequence of preceding excitement; they are therefore to be considered as only indirectly sedatives."

Prof. Christison, Dr. Figg, and Dr. Anstie on this point.

One of the highest authorities on poison, Prof. Christison, affirms that "alcohol contains a powerful narcotic poison."

subduing or punishing the external offender; the alcohol-dosed system is collecting its reserve force to conquer and expel the internal foe.

Dr. E. G. Figg (*op. cit.*, 1862) says the same; and Dr. Anstie, in his *Stimulants and Narcotics* (London, 1864), denies even the temporary strengthening of the body from alcohol, and arrives at "one distinct conclusion—which appears to be very great—namely, that as in the case of chloroform and ether, the symptoms which are commonly described as an evidence of excitement, depending upon the stimulation of the nervous system preliminary to the recurrence of narcosis, are in reality an essential of the narcotic; *i.e.*, the paralytic influence."

Dr. James Edmunds on the same.

Dr. James Edmunds (*op. cit.*) says, "Supposing that we were able by the use of alcohol to elicit latent strength, and, as it were, carry a patient round the corner, *i.e.*, through the crisis, when he might recover himself and go on safely—why, if that were so, the influence of alcohol would be invaluable in exhausting diseases, for it would often enable us to save life. But alcohol is never a stimulant at all when we come to examine it. It never acts as anything but a paralyzer. What are the reasons from which it has been argued that alcohol in small doses is a stimulant, instead of a narcotic, as it is in full doses? These—that while in the one the brain is paralyzed, in the other the man will talk faster; that while in the one the man's heart is paralyzed and his vessels distended, in the other the man's heart acts more vigorously, and his pulse beats more strongly. And it is inferred that because his heart beats more strongly, and the blood-vessels seem to be more active, the circulation must go on more actively, and that in cases of fainting and in cases of accident the circulation will often be kept up where otherwise it would fail. Let me ask if there is not a more probable explanation of the force with which the heart acts under the influence of a small dose of alcohol than that of supposing that the influence is in one case that of a narcotic, in the other that of a stimulant.

"We have an analogy in the act of breathing. When we see a man breathing quietly we know that he is comfortable, but when we see a man with asthma, we know that the air cannot get into his chest, nor its circulation go on aright in his lungs. What do we see? We see him breathing with most wonderful 'vigour,' let us call it. Is that any better for the man? Is that any indica-

tion that he has got more air? No physiologist would for a moment suggest that it was. He would say that the terrible breathing we see where an asthmatic patient leans out of window and strains all his breathing muscles to gasp for air, was an indication he could not get air into him, instead of an indication that he got more air. Yet that is a precisely analogous illustration, and the parallel will hold if we analyze it by every scientific and physiological test. For instance, if the aeration of the blood be obstructed in the capillaries of the lungs, the breathing becomes more frequent and more vigorous; but this accelerated action is always called 'difficult breathing,' and is evidence that the true respiratory changes are obstructed instead of being promoted. If the obstruction continue, this difficult or accelerated breathing rapidly exhausts the patient; the effort cannot be maintained very long, and death necessarily follows.

"If in a healthy animal we leave the heart and lungs intact, and the blood-vessels unobstructed, and simply close the windpipe with a ligature, violent efforts are made to inspire; but as no fresh air reaches the lung-cells, the necessary exchanges between the blood and air cannot be made, the blood ceases to pass on through the otherwise unobstructed capillaries, the arteries behind get gorged, the heart makes a few violent struggles to force on the blood, but the circulation becomes arrested all through the body, and death ensues.

"Here, in the phenomena of asphyxia, we see that the mere non-completion of the proper exchanges between the blood and the air absolutely arrests the blood-currents, while all the circulatory organs remain perfect, and the heart strains every fibre to urge on the life-stream. If instead of at once suffocating the animal, we allow it to breathe air containing its full proportion of oxygen, but containing also ten per cent. of carbonic-acid gas, we get, first, a retardation by narcosis of the respiratory actions in the lungs, like that which alcohol, when mixed with healthy blood, produces in the tissues of the body. Breathing becomes quickened, as in persons suffering from any other impediment to respiration, and the *heart acts violently and rapidly;* but as the carbonic-acid gas is carried by the blood all over the body, narcosis overtakes

the brain and voluntary muscles, then the involuntary breathing muscles, and lastly the heart itself. Under these circumstances death is caused by a gradual asphyxia, so precisely like that caused by extreme drunkenness that nothing but the actual presence of alcohol in the body would enable the physician to tell one from the other. But until the narcosis has extended equally to every part of the body, we get effects like those primary effects of alcohol which are called 'stimulating;' *i.e.*, we get violent and rapid pulsation of the heart, etc., etc. Yet carbonic-acid gas is the most perfect type of a narcotic poison, and it kills the deity of the fire-worshippers as remorselessly as it poisons every animal tissue." *

In a subsequent paper on the *Physiological Influence of Alcohol* (1874) Dr. Edmunds again sums up the narcotic effects of alcohol in these words: "The so-called stimulating effects of alcohol are really only finer shades of that same narcotic influence which produces general stupefaction and universal paralysis when the agent is given in large doses."

The twofold narcotizing action of alcohol on the brain and nerves.

The narcotizing action of alcohol is twofold, *i.e.*, *direct* and *reflex*. Its direct action is that of its direct assault on the brain, whose highest functions it attacks with most severity, because the higher the function the more delicate and sensitive, and hence more susceptible to injury, is the brain-matter involved Its reflex action is to paralyze the telegraphic nerve-apparatus by which the dazed and dulled superior brain sends its orders for the expulsion of the enemy. Hence the moral and spiritual functions—those of reverence for God, of aspiration; the principles of self-abnegation—modesty, love, patience, and fortitude, are the first victims of alcohol, while the coarser powers of the brain are at first comparatively little affected, and hence the orders for the reduction of the enemy devolve on these inferior functionaries instead of being received from the highest.

Illustration on this point.

It is well known that—in the case of contending

* This is from an unrevised newspaper report of what Dr. Edmunds then said—which accounts for the careless diction. The facts and opinions stated are, however, so clear and important that I have reproduced it here.

armies—no matter how superior in every respect the one foe may be to the other, and no matter how certain the ultimate result of the engagement may be, if, at the very outset, the inferior force should succeed in disabling both from action and command the chief of the superior force and those next in power and in knowledge of his plans, many lives will be uselessly wasted, because the lower officers, ignorant of the plan of battle and not holding that supremacy over the men which the general possessed, issue contradictory and inadequate orders, resulting in a confusion which costs heavily before the chief can resume his powers and lead to victory.

Similar, though infinitely more complex, are the paralyzing effects of alcohol on man. Under these, the highest functions of the brain send muddled or no orders to the sub-functions, and they in their turn (the extent of the confusion, of course, being largely determined by the amount of alcohol ingested, and the health, conditions, temperament, and intrinsic character of the drinker) send stupid or no messages to their subordinates, and so on.

But the lower the grade of a faculty, the coarser are the nerve-molecules and therefore the less susceptible of paralysis, but also the less qualified are such faculties —as in the case of the army deprived of its leaders— either to conceive or carry out the work of the highest functions; and hence in the body of man, as in the demoralized army, we find dire confusion perverting or destroying orders passed from higher to lower nerve-centres, and from nerves to tissues—and, as a result, the various manifestations of mental and physical disorders which are termed lack of co-ordination of ideas, lack of co-ordination of muscles, systemic demoralization, the wreck of manhood.

Alcohol's interference with the powers of co-ordination and sensation.

The co-ordinating powers of voluntary action are the next to yield after the moral; the mechanical powers yield last. For instance, if we put something in a drunken man's hand, if he be not too far gone, he will clutch it firmly, though without interest, idea, or intent—the action of his hand being entirely mechanical; as is also the clinging of his legs to the saddle and the sides of the horse if he is put on horseback. His body sways about

helplessly, but the muscles of his legs, mechanically called into action by the touch, cling to what touches them. The further alcoholic paralysis extends, the less does the victim know of shocks or pains. It is commonly known that a drunken man can fall a considerable distance and experience, in appearance at least, comparatively small damage. About three years ago a drunken man jumped from London Bridge into the Thames. He was picked up by a sailor, taken to a hospital, and a few days afterwards showed no effects of the shock.

It is also a fact of common observation that drunken persons can go about with ugly gashes and bruises on their bodies, without seeming in the least aware of these injuries; and in the case of the hunter St. Martin, it was seen what a horrible condition could be produced in his stomach by alcohol, with comparatively no sensations of inconvenience to the patient.

It is the same kind of paralysis which—when the vaso-motor nerves under its effects partially lose their contracting influence on the capillaries at the same time that the heart puts on extra force to expel the foe—makes them dilate so that the blood rushes into and partly remains in these minute blood-vessels. This state of things suffuses the skin with a glow, and gives the typical red face of the drunkard.

Prof. John Fiske on incipient alcoholic paralysis.

Prof. John Fiske, of Cambridge, Mass., U.S., in a keen controversial essay on *Tobacco and Alcohol* (Boston, 1869), says of the nerve symptoms produced by alcohol—

"The first narcotic symptom produced by alcohol is a symptom of incipient paralysis; the flushing of the face is caused by the paralysis of the cervical branch of the sympathetic. This symptom usually occurs some time before the conspicuous manifestation of the ordinary signs of intoxication, which result from paralysis of the cerebrum; we may search in vain among the phenomena of intoxication for any genuine evidences of that heightened mental activity which is said to be followed by a depressive recoil. There is no recoil, there is no stimulation. There is nothing but paralytic disorder from the moment narcosis begins. From the outset the whole nervous system is lowered in tone, the even course of nutrition disturbed, and the rhythmic discharge of its functions interfered with."

Outside temperature apparently qualifies the dilation of the capillaries.

Still it would seem that, at least in cases of small doses, the dilatation of capillaries is only in part the result of vaso-motor nerve-paralysis, which may be largely influenced by the surrounding temperature. In large doses, no doubt, alcohol has such a paralyzing effect on the vaso-motor nerves that the capillaries are dilated almost the same in cold as in heat; hence the danger of freezing to death. But in small doses this is not the case, because, even though the drinker does not in a warm room feel the effects of drink, he becomes quickly intoxicated after entering the cold air, which seems to point the fact that in a warm room the system risks less from driving the alcoholized blood to the surface for oxidation, than from keeping it back in the interior; while in the cold atmosphere the poison is allowed to work in the interior of the system. And therefore we see, as in the case of the outward manifestations—the glow of the eye, etc.—the agreeable sensations caused by the blood pouring to the surface are deceptive; it is not an increase, but a decrease of heat, the surface being warmed at the expense of the interior. And universal experience proves the fact.

It would seem, however, to have been demonstrated that the minutest quantities of alcohol have some paralyzing effect on the vaso-motor nerves.

The Rev. Mr. Merriman, of Worcester, Mass., U.S., in a most excellent essay, entitled *A Sober View of Abstinence* (*Medical Temperance Journal*, London, 1882), says—

Drs. Nicol, Mossop, and Smith on the narcotic effects on the eye.

"Drs. Nicol and Mossop of Edinburgh, conducting a series of experiments upon each other, examined the base of the eye by means of the ophthalmoscope while the system was under the influence of various drugs. They found that the nerves controlling the delicate blood-vessels of the retina were paralyzed, and the vessels themselves congested, by a dose of two drachms of rectified spirit—less than a *quarter of an ounce* of absolute alcohol—or about a table-spoonful of brandy. Here was a genuine paralysis, 'a real physical damage to the nervous tissue.' The narcosis caused by this minute dose was, of course, less extended, but just as real as that which occurs when a man becomes dead-drunk.

"As the nerves and blood-vessels of the eye have a

peculiarly intimate connection with the brain, this experiment would seem to show us through this little window, as it were, to the cerebrum, how it is that even half a glass of light wine 'goes to the head' of many people, that is, causes for a moment a slight dizziness and blurring of sight; and also how it is that, as Dr. E. Smith has shown, all the senses, particularly the sight, are blunted by very small doses of alcohol. Is it impertinent to suggest that even smaller quantities than this quarter of an ounce may cause incipient narcosis, if only we had an instrument sharp enough to detect it? If so, the distinction in kind between the effects of large and of small doses, vanishes."

The quality of the brain decides the clearness and rapidity with which a message for any part of the body is conceived. The soundness of the various nerves through which the message is transmitted decides the accuracy and speed with which it will reach its destination; and the relative health of the communicating agent, and of the tissue deputed by it to put the order into execution, decides the degree of perfection with which the transaction will be finished.

The quality of the brain decides the quality of its communicating power.

Dr. J. Crichton Browne, in his paper on *Education and the Nervous System* (*Book of Health*, London, 1883), says: "The rate at which a nervous impulse travels along a nerve to a muscle can be accurately measured, and this has been found to vary much in different animals. In a frog, such an impulse travels at the rate of twenty-eight mètres per second, and in a man at the rate of thirty-three mètres per second. And in different individual men the rate of nerve conduction varies slightly. But it is in more complex nervous operations that the influence of quality of nerve-matter in determining rate of action becomes more manifest. Thus, as regards sensory impressions and voluntary actions founded upon them, the observations of astronomers show that of a number of persons intently watching for the transit of a star across the meridian, some will record the event a third or even half a second earlier than others, the difference between individuals in this respect being known as the personal equation. M. Hirsh has shown that there are differences in the

Dr. J. Crichton Browne on this point.

rapidity with which impressions are transmitted through the nerves of sight, hearing, and touch, and common observation affords abundant illustrations of different rates of action in nerve-centres connected with mental processes. If a man, when out walking, asks his way, and receives some rather complicated directions as to the route to be taken, he will frequently repeat these directions aloud once or twice before he fully comprehends them. The words have been instantaneously received and appropriated so as to be capable of reproduction, but the interpretation of them takes appreciable time. The lower process has been rapid, the higher has been more deliberately performed. And common observation also affords abundant illustration of different rates of rapidity of mental processes in different persons, and thus guides to a rough estimate of the quality of brain-matter. One man is spoken of as quick-witted; another, as slow of thought. One is said to be vivacious, another lethargic; and for scientific purposes differences of this kind are summoned (?) up in temperaments, in which rapidity of mental action and quality of brain-substance are indicated by certain outward characteristics. From the nervous to the lymphatic temperament, through the sanguine and bilious and intermediate temperaments, compounded of these, there is a gradual diminution in the rate of nerve-action, and in the fineness of quality of nerve-substance."

The manner in which alcohol—even when taken in very minute quantity—interferes with the healthfulness of nerve-communication, is another proof that it is always narcotic, *i.e.*, a nerve-paralyzer.

The late Dr. Parkes in regard to the paralyzing effect of alcohol on the power of transmitting thought.

Dr. E. A. Parkes, in the *Manual of Practical Hygiene* (London, 1878), gives the following description of the nerve-paralyzing effects of alcohol:—

"In most persons alcohol acts at once as an anæsthetic, and lessens also the rapidity of impressions, the power of thought, and the perfection of the senses. In other cases it seems to cause increased rapidity of thought, and excites imagination, but even here the power of control over a train of thought is lessened."

Dr. Howie on the same.

In a lecture on *Physiological Aspects of the Alcohol Question*, to the conference of Liverpool teachers con-

vened by the National Temperance League, June 9, 1883, Dr. Howie said, "In the present day we can calculate with precision the exact time, to a minute fraction of a second, which is required to transmit a message from the brain to the hand or any other portion of the body, and it has been distinctly shown that it takes much longer to send such a message after the person experimented upon has taken even a small dose of a narcotic. A message which could be sent in 0·1904 of a second required 0·297 second for its performance after two glasses of hock had been administered to the subject of experiment, thus showing how much even a slight narcotic effect interferes with the vital action of nervous tissue."

Dr. J. J. Ridge's interesting experiments with minute doses of alcohol.

How instantaneous is the disorganizing and crippling effect of this nerve-paralysis upon the mental powers, after even the smallest dose of alcohol, is shown by Dr. J. J. Ridge, in his interesting experiments, the results of which, published in the *Medical Temperance Journal* for April, 1882, are almost entirely reproduced here: "If alcohol is at first a stimulant, of course the functions under consideration should be more easily and accurately performed. There are three of the functions of the nervous system which seemed most suitable for test purposes—(1) the sense of touch, or feeling; (2) the sense of weight, or the muscular sense; and (3) the sense of sight, or vision. I have tested each of these senses in the following ways:—

"1. *Feeling.*—An instrument was constructed in which were two points in an upright position, and about half an inch apart. A third upright point was situated between the two, and was capable of being moved in a straight line nearer to one or other of the stationary points. These three points were covered in so as to be invisible, but the forefinger could be passed through a hole in order to feel them. The middle point was moved by a rack and pinion, and the person tested was required to move it until, in his opinion, it was as nearly as possible equally distant from the two outside points. The movement of the middle point was recorded on a dial invisible to the subject of the experiment. This form of instrument was preferred to the ordinary æsthesiometer, because in that instrument (in using which the person has to state the earliest moment

that he can distinguish the points of a pair of compasses as two, while they are gradually separated) imagination might more easily vitiate the conclusions.

FEELING.

A—abstainer.	Number of degrees on the dial from exact centre *before* alcohol.					Average.	Number of degrees on the dial from exact centre *after* alcohol.					Average.	Amount of absolute alcohol given.
A	6	6	3	—	—	5	10	8	10	—	—	9·3	2 drachms
A	6	30	4	30	10	16	20	24	46	45	5	28	2 drachms
A	8	40	7	9	—	16	33	24	7	30	—	23·5	2 drachms
A	3	—	—	—	—	3	14	—	—	—	—	14	2 drachms
A	75	—	—	—	—	75	115	—	—	—	—	115	2 drachms
						115						189·8	

"This table shows that alcohol in small doses exercises a narcotic influence on the nerves of sensation, or renders the perception of minute differences of size less keen and delicate. The numbers, though apparently large, do not represent a large actual distance between the points. They simply indicate the relative difference, the average before alcohol being twenty-three, and afterwards almost thirty-eight. The only conclusion that can safely be drawn is that there is certainly no improvement, no increased sensitiveness after small quantities of alcohol, but, on the contrary, slight deterioration.

"2. *Weight.*—The amount of muscular force required to overcome different resistances is measured by a special sense connected with the muscles, but exercised by the nerves. Comparison between two weights requires the action of the judgment. The more acute the perceptive faculties are, so much the more readily will the judgment decide upon small differences between two weights. The effect of alcohol on this muscular sense was determined by an arrangement in which a weight was attached to a certain lever, and the person experimented upon was required to slide an equal weight along another lever, exactly similar to the first, until, in his opinion, the weights appeared to be the same. It is obvious that the position of the weights on each lever ought to be exactly the same, and, therefore, the more sensitive the muscular sense is,

the nearer will the individual be able to place them before he ceases to detect any difference.

"The following table gives the particulars of the various trials, the average results both before and after alcohol, the quantity of alcohol administered, and the general average of the whole. All the individuals tested were adult men, and the alcohol was diluted with at least three times its bulk of water.

WEIGHT.

A—abstainer.	Distance between the weights, in millimetres, *before* alcohol.					Average.	Distance between the weights, in millimetres, *after* alcohol.					Average.	Amount of absolute alcohol given.
A	14	8	—	—	—	11·00	7	20	—	—	—	13·50	½ drachm
Non-A	22	10	16	18	—	16·50	18	20	20	22	—	20·00	1 drachm
A	3	4	2	10	—	4·75	8	4	8	3	—	5·75	1 drachm
A	4·5	7	9	7	7	6·90	13	11	12·5	18	13	13·50	2 drachms
A	0	2	9	5	—	4·00	5	4	13	10	—	8·00	2 drachms
Non-A	2	4	5	2	—	3·25	10	4	4	6	—	6·00	2 drachms
A	2	2	5	0	—	2·25	1	7	4	3	—	3·75	2 drachms
A	5	7	9	0	—	5·25	10	8	8	0	—	6·50	2 drachms
A	9	1	11	0	1	4·40	3	8	11	15	4	8·20	2 drachms
Non-A	2	3	4	1	—	2·50	6	6	8	3	—	5·75	4 drachms
						60·60						90·95	

General average, 6·060 before 9 095 after.

"From this table certain facts are apparent:—(1) That in every case the average sensibility to weight and power of discrimination was decidedly diminished by small doses of alcohol, the general average indicating that the sensibility is diminished about one-third, or 66·4 per cent. (2) That single trials are not reliable, since many circumstances may unite to produce a fallacious result. Thus, some of the trials after alcohol were actually more accurate than some of those before it, although the average of each individual conforms to the general average of the whole. (3) That non-abstainers are affected, as well as abstainers. (4) That small doses act in a similar way to large doses, and that the difference is only in degree, not in kind.

"3. *Vision.*—This was tested by noting the distance at which a row of letters could be read with one eye, without

alcohol, and then the distance at which the same letters, differently arranged, could be read with the same eye afterwards. The distance varies very greatly in different individuals; but, of course, in the same individual it would remain the same, provided that the alcohol had no effect. Indeed, one might naturally expect a slight improvement in the latter trials, by reason of the eyes becoming accustomed to the formation of the fancy letters employed. The following table gives the results obtained :—

VISION.

A—abstainer.	Distance of distinct vision, in feet *before* alcohol.				Average.	Distance of distinct vision, in feet, *after* alcohol.				Average.	Amount of absolute alcohol given.
A	7	7·25	7	6	6·81	7	6·75	6·50	5.75	6·50	½ drachm
Non-A	9	7	7	8·5	7·87	8·75	6·75	5·75	8	7·31	1 drachm
A	10·5	10·75	10·5	10·5	10·56	8	9	7·5	9 5	8·50	1 drachm
Non-A	4·25	5·25	5·25	—	4·91	4·50	4·5	4·25	—	4·41	2 drachms
A	10·25	9	7·25	—	8·83	9	9·25	8	—	8·75	2 drachms
A	11·25	11·25	10·25	9·5	10·56	10·5	10·5	11	8·5	10·12	2 drachms
A	15	10·5	13	—	12·80	13	10·5	12	—	11·80	2 drachms
A	9·25	10·25	—	—	9·75	8·50	8	—	—	8·25	4 drachms
A	6	6	5·75	—	5·91	5·25	4·75	4·75	—	4·91	4 drachms
A	16	15·5	15·75	—	15·75	14·75	14·5	15·25	—	14·83	4 drachms
					93·75					85·38	

General average, 9·375 before; 8·538 after.

"Here, again, it is clear that every one of the individuals experimented on was affected injuriously by the alcohol. On the average, every one had to approach nearer in order to distinguish the same letters. The general average indicates that it required an approach of nearly one foot to compensate for the injury done by the alcohol. To put it another way, the distance had to be shortened, on the average, 9 per cent.

"In testing all three of these senses it ought in fairness to be borne in mind that considerable advantage was given to alcohol by the unavoidable necessity that the test with alcohol should follow the test without it. For thus, in every case, the alcohol gets all the credit of the improvement due to experience and practice. If this fallacy could have been avoided, it seems probable that the difference in

favour of total abstinence would have been even greater than it really was.

"As two drachms of alcohol was the amount given in the majority of cases, it may be just worth a line to indicate that this represents one tablespoonful of spirits; not quite half a glassful of port or sherry; a small wine-glassful of claret or champagne; and not quite a quarter of a pint of ale. Now, these quantities are considerably short of the 'physiological minimum,' which is supposed not to do any one any harm. Indeed, the fact is established —that from the moment when sufficient alcohol has been taken to affect the nervous system at all, to the total extinction of nervous energy by a fatal quantity, there is *progressive paralysis* of every form of nerve function, capable of accurate determination, which has hitherto been experimented on.

"It is to be carefully observed that, notwithstanding this real deterioration of various powers, *the individual is not conscious of any alteration*, and nothing but an unmistakable test can convince him that he is not so accurate or capable as he was before. Whether this arises simply from the inability of the judgment to compare the intensity of two impressions reaching it separately, and after an interval of from fifteen to thirty minutes, or whether it arises from incipient paralysis, or weakening of the judgment itself, is not easy to determine. Probably both causes operate to account for the failure to perceive the difference.

"*One thing becomes very clear—namely, that the highest possible perfection of the nervous system is only possible with strict total abstinence.*

"Alcohol has, also, clearly no right to be called a stimulant. It is a narcotic from first to last, as Dr. Wilks and others have heretofore asserted, and the symptoms of stimulation are only the result of the peculiar, balanced condition of many functions, between accelerating and checking nerves; the narcotizing of a checking nerve producing for the time being the same visible effect as the stimulation of an accelerating nerve. Alcohol, like other drugs, has its special preferences for certain nerve-tracts over others, and there is no doubt that in some persons one nervous function is more susceptible, and in others

another. Nevertheless, its tendency may be broadly indicated as a paralyzer of nerve-function, or, more shortly, as a true narcotic."

Recent testimony in confirmation of Dr. J. J. Ridge's experiments.

In a letter dated March 21, 1884, Dr. J. J. Ridge writes to me as follows: "Very recently Dr. Scougal, of New Mill, has repeated and confirmed my conclusions, and adds that the sense of hearing is similarly affected by alcohol."

Conditions qualifying length, extent, and character of alcoholic paralysis.

The health, temperament, alcoholic heritage, and resistive power of the drinker; the state of his stomach as to food; the vitality of the blood, activity of the excrementary organs, foreign ingredients in the alcoholic drink;—these and other conditions and circumstances combine to determine and qualify the length, extent, and character of alcoholic paralysis, and the amount of damage done, just as they do in regard to the nutritive processes; and must equally be considered in forming an estimate of the effects of alcohol upon the nervous system.

Theories regarding the effects of alcohol on the nerves in producing the drink-craving.

§ 41. In the preceding portion, on alcohol and digestion, it has been shown that the terrible drink-craving was caused by the avidity with which alcohol absorbs the water from the tissues, but it does not depend exclusively on those chemical properties of alcohol. One of the peculiarities inherent in all forms of sensuous excitation is that artificial excitement produces a cry for more of the excitant, and the more imperatively in proportion to the delicacy of the functions thus abused.

Dr. Anstie on the same.

Says Dr. Anstie (*op. cit.*), "A certain quantity of nervous tissue has ceased to fill the *rôle* of nervous tissue, and there is less impressible matter upon which the narcotic might operate. And hence it is that the confirmed drunkard, opium eater, or coquero requires more and more of his accustomed narcotic to produce the intoxication which he delights in—to saturate his blood to a high degree with the poison, and thus to insure an extensive contact with the nervous matter."

Prof. Fiske on the same.

Prof. John Fiske (*op. cit.*) says, "The perpetual craving of the drinker in all probability is due to the gradual alteration in the molecular structure of the nervous system, caused by frequently repeated narcosis."

General conclusions as to

Alcohol, therefore, is a narcotic always—from beginning to end, never anything else but a narcotic. Indeed, were

it otherwise, it would not be used in the ways that it is. Therefore, those who drink in the hope of increasing the pleasure of living, miss their object, as do those who drink in the hope of augmenting their mental powers. The lawyer, taking his glass before delivering his brief, dulls his anxiety as to the issue and his embarrassment in speaking; the orator, taking his glass as an inspiration, will possibly, by the irritation and jostle of ideas due to narcosis, be able to reproduce from his reserve stores of knowledge some flashy, perhaps eloquent periods, but rarely coherent or deep reasoning; in neither case do feeling or thought become clearer or keener, but memory and fear are deadened, and a mechanical courage to stolidly get over what cannot be adequately faced, is often temporarily acquired.

the narcotizing effects of alcohol.

§ 42. Recent years have furnished the strongest proofs and testimony that the notion of alcohol as an auxiliary in brain-work is fallacious.

Dr. E. G. Figg (*op. cit.*) says, "In a person drinking to stimulate a natural mental function, we soon witness an alteration of object; for, experimentally convinced that in the insolvency of the cerebral system as a basis, and the defective co-operation of the blood, that extraordinary exhibition is not attainable, he must rest satisfied with reaching that which was once the normal standard of his powers, but from which he has retrograded in the collapse of frequent excess."

Dr. E. G. Figg on the effects of alcohol when used as a mental stimulant.

In a word, alcohol disappoints and betrays all except those who seek sloth and death for body and mind.

In a lecture on *The Effects of Alcoholic Liquors upon Health and Work*, delivered in Mr. Samuel Morley's warehouse, by Sir Andrew Clark, January 6, 1882, he said, "Every adult man who finds himself after trial—and every man should try—to be a thousand times better without alcohol, should not resume it, because he will work better, he will enjoy more, he will have a longer exemption from disease, he will probably live longer, and certainly he will be better in all the higher relations of life. . . . I dare say if a man took a glass of wine, as sometimes people do to overcome nervousness, he might succeed, and indeed I am bound to say that that sort of help alcohol sometimes can give to a man, but it gives it curiously enough at the

Sir Andrew Clark on the same.

expense of blunting his sensibilities. . . . That is my testimony as to the effect of alcoholic liquors upon health and upon work, namely, that for all purposes of sustained, enduring, fruitful work it is my experience that alcohol does not help but hinders it. . . . I am bound to say that for all honest work alcohol never helps a human soul. Never, never!"

Mr. A. Arthur Reade's summary from one hundred and thirty-two letters on this same point.

Mr. A. Arthur Reade, in his work, *Study and Stimulants* (London, 1883), composed of one hundred and thirty-two letters and citations from various eminent literary and other brain workers, says in his concluding comments, "From a review of these one hundred and thirty-two testimonies . . . I find" that "not one resorts to alcohol for stimulus to thinking, and only two or three defend its use under special circumstances—'useful at a pinch' under 'physical or mental exhaustion.' Not one resorts to alcohol for inspiration."

The Rev. Stopford A. Brooke's testimony on the same.

I quote from Mr. Reade's volume the following concise and comprehensive testimony (given at Bedford Chapel, July 20th, 1882), by the Rev. Stopford A. Brooke: "It has been said that moderate doses of alcohol stimulate work into greater activity, and make life happier and brighter. My experience since I became a total abstainer has been exactly opposite. I have found myself able to work better. I have a greater command over any powers I possess. I can make use of them when I please. When I call upon them they answer; and I need not wait for them to be in the humour. It is all the difference between a machine well oiled and one which has something among the wheels which catches and retards the movement at unexpected times. As to the pleasure of life, it has been also increased. I enjoy Nature, books, and men more than I did—and my previous enjoyment of them was not small. Those attacks of depression which come to every man at times who lives too sedentary a life, rarely visit me now, and when depression does come from any trouble, I can overcome it far more quickly than before. The fact is, alcohol, even in the small quantities I took it, while it did not seem to injure health, injured the fineness of that physical balance which means a state of health in which all the world is pleasant. That is my experience after four months of water-drinking, and it is all the more striking

to me, because for the last four or five years I have been a very moderate drinker. I appeal to the young and the old to try abstinence for the very reasons they now use alcohol—in order to increase their power of work and their enjoyment of life. Let the young make the experiment of working on water only. Alcohol slowly corrupts and certainly retards the activity of the brain of the greatest number of men. They will be able to do all they have to do more swiftly. This swiftness will leave them leisure, the blessing we want most in this overworked world. And the leisure not being led away by alcohol into idleness, into depression which craves unnatural excitement, into noisy or slothful company, will be more nobly used, and with greater joy in the usage. And the older men, who find it so difficult to find leisure, and who when they find it cannot enjoy it because they have a number of slight ailments which do not allow them perfect health, or which keep them in over-excitement or over-depression, let them try—though it will need a struggle—whether the total abandonment of alcohol will not lessen all their ailments, and by restoring a better temper to the body—for the body with alcohol in it is like a house with an irritable man in it—enable them not only to work better, but to enjoy their leisure. It is not too much to say that the work of the world would be one-third better done, and more swiftly done, and the enjoyment of life increased by one-half, if no one took a drop of alcohol."

Opinions that alcohol reduces the capacity for work—by Dr. Beddoes, Donders, Liebig, Dr. Parkes, and Count Wollowicz.

§ 43. The working classes do mostly believe that alcohol increases their capacity for labour. Of course they are deceived by the general sensations and appearances, and practical tests have proved the fallacy of their belief.

Dr. Beddoes (in *Hygeia*, 1802) shows by comparison that drinkers, all other circumstances being equal, could do less work than non-drinkers.

"Alcohol," says Dr. Baer, quoting from Dr. Donders, "is no savings-bank for muscular strength, as, in time, it utterly destroys it."

"Brandy, in its action on the nerves," says Baron Liebig, "is like a bill of exchange drawn on the health of the labourer, which for lack of cash to pay it, must be constantly renewed. The workman consumes his principal instead of interest, hence the inevitable bankruptcy of the body."

But the crucial test for the working classes is found in the results of the experiments of Drs. Parkes and Wollowicz.*

From long-protracted comparative experiments, alternately with water and with alcohol, on a strong and healthy man, they found by counting the heart's beats on days of water-drinking and days of spirit ingestion, that alcohol greatly increased the heart's action. In summarizing these results they say—

"Admitting that each beat of the heart was as strong during the alcoholic period as in the water period (and it was really more powerful), the heart on the last two days of alcohol was doing one-fifth more work.

"Adopting the lowest estimate which has been given of the daily work of the heart, viz., as equal to 122 tons lifted one foot, the heart during the alcoholic period did daily work in excess equal to lifting 15·8 tons one foot, and in the last two days did extra work to the amount of 24 tons lifted as far.

"The period of rest for the heart was shortened, though, perhaps, not to such an extent as would be inferred from the number of beats, for each contraction was sooner over.

"The heart on the fifth and sixth days after alcohol was left off, and apparently at the time when the last traces of alcohol were eliminated, showed in the sphygmographic tracings signs of unusual feebleness, and, perhaps in consequence of this, when the brandy quickened the heart, again the tracings showed a more rapid contraction of the ventricles, but less power than in the alcoholic period. The brandy acted, in fact, on the heart, whose nutrition had not been perfectly restored.

"It will seem at first sight almost incredible that such an excess of work could be put upon the heart, but it is perfectly credible when all the facts are known.

"The heart of an adult man makes, as we see above, 73·57 strokes per minute. This number multiplied by sixty for the hour, and again by twenty-four for the entire day, would give nearly 106,000 as the number of strokes

* See Bibliography—*Experiments on the Effect of Alcohol on the Human Body.—Experiments on the Action of Red Bordeaux Wine (Claret) on the Human Body.* London, 1870.

per day. There is, however, a reduction of stroke, produced by assuming the recumbent position and by sleep, so that for simplicity's sake we may take off the 6000 strokes, and, speaking generally, may put the average at 100,000 in the entire day. With each of these strokes the two ventricles of the heart as they contract lift up into their respective vessels three ounces of blood each; that is to say, six ounces with the combined stroke, or 600,000 in the twenty-four hours. The equivalent of work rendered by this simple calculation would be 116 foot-tons; and if we estimate the increase of work induced by alcohol, we shall find that four ounces of spirit increase it one-eighth part, and eight ounces one-fourth part."

Identical results were reached by these physicians in their experiments with claret. There was the "marked effect on the heart . . . the twenty ounces (of claret), containing almost two fluid ounces of alcohol, were manifestly too much for the subject . . . he felt hot and uncomfortable, was flushed, the face was somewhat congested, and he was a little drowsy. . . . Moreover, alcohol then began to appear in the urine. . . . With regard to this healthy man taking any alcohol, we have no hesitation in saying he would be better without it."

General summary of the physiological results of alcohol.

§ 44. To sum up, we see that alcohol is a substance entirely alien to the body, and incapable of being transformed into anything useful to it; that it hinders the digestion, wastes the digestive fluids, tends to dissolve and damage the blood-cells, and thus vitiates and retards all the life-processes—its action on the stomach and blood producing structural degeneration throughout the system.

As to its effect on the nervous system, we see that it works through the blood directly on the brain and nerves; that it narcotizes, and that in this narcotizing it especially deadens the feelings of care, responsibility, and discretion, and upon the bodily powers its effects are shown in the failure of the power to co-ordinate complicated series of muscles, and in blunting the acuteness of the senses.

Its affinity for water causes thirst for water, which the drinker mistakes for liquor-thirst, his mistake being

strengthened by the spasmodic demand of the nervous ganglia for more irritation—hence the body's irresistible craving for drink. These being the effects of alcohol on the whole organism, it follows that no one is or can be strengthened by its use, and that, whether used in moderation * or excess, it is, speaking from the standpoint of physiology alone, an unmitigated curse to man, and as the poisoner of water—man's chief source of life—it is the great founder of death.

* The question of moderate drinking is dealt with in chapter xii.

CHAPTER VI.

PATHOLOGICAL RESULTS, OR DISEASES CAUSED BY ALCOHOL.

§ 45. In the previous part I have dealt with the chemical action and reaction between the body and alcohol.

In this, the pathological—or disease portion—I shall deal briefly with the disagreeable experiences which Nature forces upon man in her protest against his use of alcohol. The difficulties hitherto encountered are here multiplied and intensified. All the complexities and intricacies, and the apparent contradictions which bewilder and confuse the physiological inquirer, confront the physician with large reinforcements. Even if alcoholic drinks were never adulterated, the exact diagnosing of alcoholic diseases would still be a matter of supreme difficulty. Where, for example, can a non-alcoholic standard be found, and without such an authoritative criterion how can accuracy be hoped for? But not only is there no criterion to judge from, but unadulterated alcohol is a scarcely known article.

But let us remember that without alcohol there would be no adulterations, while without the adulterations there would still be alcohol.

Definition of the terms disease and health.

Before considering the subject of alcoholic diseases, let us agree on definitions of the terms disease and health.

Disease is a self-suggesting word—dis-ease, *i.e.*, disturbance, dis-order. *Health* we may define as ease, peace, order. Health, therefore, is that state of individual being in which the body and mind are unanimous about the joy of living.

This broad definition of health may almost provoke scorn; not because it is not true, but because it is absurdly inapplicable to life as we find it; because being true, then

health is an unknown blessing, and there is nothing but disease in the world; a terrible verdict to pronounce on man's misuse of himself and his fellow-beings.

Practically, then, *health* is that state of being in which no part of body or mind offers any palpable, or more than evanescent signs of serious individual disturbance; *disease* is the palpable manifestation of disturbance of the regular processes of life.

Dr. Huss, the originator of the term *alcoholism*, and its division into acute and chronic.

Alcoholismus, or alcoholism, is the name for all diseases in any way found to be due to the use of alcohol. The term was first used by Dr. Magnus Huss, of Stockholm, in his *Alcoholismus* (1849–1851). He divides alcoholism into two groups: *Acute alcoholism* and *Chronic alcoholism*.* *Acute alcoholism* (drunkenness and its immediate consequences) is principally of a mental character, and the precursor and preparer of *chronic alcoholism* (the graver chronic mental disorder); but as *chronic alcoholism* is both of a physical and mental character, I will—in order to connect the physical phenomena as a whole with the mental phenomena as a whole—first deal with the chronic physical phenomena, then with acute alcoholism, and then with the chiefly mental phenomena and diseases.

A. *Physical Phenomena and Diseases.*

§ 46. "The term *chronic alcoholism*," says Dr. Huss, "applies to the collective symptoms of a disordered condition of the mental, motor, and sensory functions of the nervous system, these symptoms assuming a chronic form, and without their being immediately connected with any of these (organic) modifications of the central or peripheric portions of the nervous system, which may be detected during life or discovered after death by ocular inspection; such symptoms, moreover, affecting individuals who have

* Dr. James Edmunds says that in chronic alcoholism, "the body is one whose tissues are damaged, to begin with, by the long-continued use of alcohol. The case displays all the phenomena of the sot. With every temporary depression in health, a comparatively mild chill or a little excess in the habitual use of alcohol suffices to bring on an attack of *delirium tremens*. This differs from acute alcoholism in that the subject is more prone to prostration and death, though the symptoms are less violent, and that recovery is much slower."

persisted for a considerable length of time in the habit of drinking."

The scope of alcoholism.

Strictly speaking, chronic alcoholism includes all chronic diseases, physical or mental, coming within the scope of either of the following categories :—

1. Disorders occasioned by strain imposed on the system by alcohol.

2. Diseases traceable to general system-degeneration produced by alcohol.

3. Diseases which but for alcoholic system-degeneration might have been averted or resisted.

Neither place nor time are here afforded for going into the pathogeny, symptomatology, diagnosis, or nosology of alcoholic diseases, and we shall only quote some of the general utterances of the great authorities on these points, leaving the reader to discover, not what diseases *do*, but what diseases do *not* directly or indirectly owe, in part at least, their existence, character, and prevalence to alcohol.

Prof. Christison on general diseases due to the use of alcohol.

Prof. Christison, of Edinburgh, in a letter to the Chairman of the Massachusetts State Board of Health, dated July 26th, 1870, says of intoxication—

"I recognize certain diseases which originate in the vice of drunkenness alone, which are *delirium tremens*, cirrhosis of the liver, many cases of Bright's disease of the kidneys, and dipsomania, or insane drunkenness.

"Then I recognize many other diseases in regard to which excess in alcoholics acts as a powerful predisposing cause, such as gout, gravel, aneurism, paralysis, apoplexy, epilepsy, cystitis, premature incontinence of urine, erysipelas, spreading cellular inflammation, tendency of wounds and sores to gangrene, inability of the constitution to resist the attacks of the diseases at large. I have had a fearful amount of experience of continued fever in our infirmary during many an epidemic, and in all my experience I have only once known an intemperate man of forty and upwards to recover."

Prof. Christison also claims that three-fourths, or even four-fifths, of Bright's disease in Scotland is produced by alcohol.

Dr. Murchison on continued fevers.

In a *Treatise on the Continued Fevers of Great Britain* (London, 1874), Dr. C. Murchison says :—

"A single act of intoxication may also predispose to

typhus. I have known several instances of persons exposed for months to the poison in its most concentrated form, who were not attacked until immediately after a debauch. There is no greater error than to imagine that a liberal allowance of alcoholic stimulants fortifies the system against contagious diseases."

Dr. Murchison on functional diseases of the liver.

In the Croonian Lectures of 1874, to the members of the Royal College of Physicians, on *Functional Diseases of the Liver*, Dr. Murchison said—

"It is the prevalence of beer and spirit drinking, and consequent liver-clogging, which accounts for the widespread use and countless forms of patent pills, such as Cockle's, Morison's, Holloway's, and others. These are taken by millions every week, and people find that if they do not take them they become bilious and unwell. They are all of a purgative nature, and by occasionally hurrying unspent material out of the system they give temporary relief to the overwrought liver. The wear and tear of this process must, however, tend to shorten life.

"The sallow and unhealthy appearance of the face of the drinker indicates the diseased liver, the most common disease being the so-called cirrhosis or shrinkage of the liver, commonly termed in England the 'gin-drinker's liver.'"

Mr. Startin on skin diseases.

In July, 1882, Mr. James Startin stated that—

"Sixty per cent. of the cases of skin disease which he has to deal with are due, in one way or another, to alcohol. His position, both as a consultant and surgeon to St. John's Hospital for Diseases of the Skin, render his experience large and his testimony important. There can be no doubt that the universal abandonment of alcoholic beverages would conduce as much to the health and clearness of the skin among the general population as among those female prison inmates who are declared, on unimpeachable authority, so frequently to recover their good looks by the unalcoholic regimen of their enforced retreat."

In a lecture at Exeter Hall (April 18, 1882) Dr. Norman Kerr, in speaking of the diseases due to alcohol, stated that probably 60 per cent. of the cases of erysipelas were occasioned by it.

Sir William Temple, in his essay upon the *Cure of Gout by Moxa* (Nimeguen, June, 1677), says—

"Among all the diseases to which the intemperance of this age disposes, I have observed none to increase so much as the gout, nor any, I think, of worse consequence to mankind. . . . And if *intemperance* be allowed to be the common mother of the gout, or dropsy, and of scurvy, etc., I think *temperance* deserves the first rank among public virtues, as well as those of private men; and I doubt whether any can pretend to the constant steady exercise of prudence, justice, or fortitude, without it. . . . I have known so great cures, and so many, done by obstinate resolutions of drinking no wine at all, that I put more weight upon the part of temperance than any other."

Dr. Darwin on gout.

Dr. Erasmus Darwin, in his famous work, *Zoonomia* (London, 1794), vol. i. sect. xxi. p. 251 ("On Drunkenness"), says concerning *gout*—

"I am well aware that it is a common opinion that the gout is as frequently owing to gluttony in eating as to intemperance in drinking fermented or spirituous liquors. To this I answer that I have seen no person afflicted with gout who has not drunk freely of fermented liquor, as wine and water, or small beer; though as the disposition to all diseases which have originated from intoxication is in some degree hereditary, a less quantity of spirituous potation will induce the gout in those who inherit the disposition from their parents."

Dr. Garrod on gout.

"In his work on *The Nature and Treatment of Gout* (London, 1859), Dr. Alfred Baring Garrod says—

"There is no truth in medicine better established than that the use of fermented or alcoholic liquors is the most powerful of all the predisposing causes of gout; nay, so potent that it may be a question whether the malady would ever have been known to mankind had such beverages not been indulged in. Stout and porter rank next to wine in predisposing to gout; cider and similar beverages will also act to some extent as predisposing causes of gout."

Dr. Drysdale on beer and gout.

Dr. Charles Drysdale, in his address before the Public Health Section of the British Medical Association, at Sheffield (Aug. 3, 1876), said—

"The drinking of beer is the greatest cause of gout among the population of London."

The testimony of W. Bromley Davenport, M.P., that Lord Granville recovered from gout through abstinence.

At the Licensed Victuallers' Dinner, given at Birmingham (August 9, 1877), Mr. W. Bromley Davenport, M.P., gave this amusingly naïve testimony regarding gout and wine :—

"My brother-in-law, Lord Granville, about two years ago, told me he intended to give up wine altogether. I was very sorry to hear it, because I thought it might injure him. He tells me he has given up wine, and whereas he used to suffer from the gout, he is now not troubled with it. If I were to look into my secret soul—if the priest in absolution got hold of me, and got into my soul, which I hope he will not—I should have to admit I was a little annoyed at finding him so well. I was, because his system and mine were so totally opposed, and I was a little bit disappointed."

Dr. Richardson's summary of the functional disorders and organic diseases from alcohol.

Dr. B. W. Richardson, in his *Diseases of Modern Life* (London, 1877), chaps. viii. and ix., *On Functional Disorders and Organic Diseases from Alcohol*, gives the following clear and comprehensive summary of diseases springing from alcohol :—

"The simplest form of the disease is seen in those who have become habituated to the use of alcohol up to the first degree. In this degree the alcohol, when in action, is producing arterial relaxation, and the extreme or peripheral circulation is surcharged with blood. Persons who are thus far habituated to it find in the agent what seems to them to be a daily necessity. They rise in the morning imperfectly refreshed by sleep, and they discover in the first meal of the day, in the ordinary breakfast of domestic life, a very imperfect sustainment. As the day advances some want is felt generally; the stomach seems to require a fillip, the nervous system is languid, the mind is dull, and the muscles are easily wearied. There is, in addition, a sense of central feebleness, as though the heart were waiting for an expected and necessary support. Under the apparent necessity created by these desires, some alcohol is imbibed and relief is for the time obtained. The relief is speedily determinate, and the power for work or for play is restored. But the effect is of short duration; after a brief period the alcohol is demanded again, either with or without food, and at each meal it is felt to be as essential

s the food itself—nay, it is often felt to be so essential that ood is as nothing without it.

"The first symptoms indicating the evil influence of alcohol are, as I have said, functional, and I may add, fluctuating. They are at first commonly called dyspeptic symptoms. The stomach and alimentary canal are surcharged with gases; and flatulency is a constant source of annoyance. With this there is frequent depression of mind and ready irritation. The emotional centres are easily excited, and to laugh or to cry seems often to be but the work of a thought in act, and of a moment in time. The action of the bowels is irregular; at one time there is a constipated, at another time a relaxed condition. The function of the kidney is equally disturbed. Alcoholic dyspepsia.

"Noises and ringing and buzzing sounds are heard in the head, now suddenly and for brief periods, again for longer or even very long periods of time. The cause of these sounds is simple enough. The arterial tension being reduced, the blood flowing through the internal carotid arteries into the skull, through the bony channel called the carotid canal, presses on the walls of the relaxed vessel, dilated under the pressure of the blood, and conveys vibration, from the pressure of the blood, to the walls of the bony canal. The vibration is communicated direct to the immediately contiguous auditory apparatus, and thus every movement of the blood becomes a murmur of sound, varied in intensity and quality by the varying tension of the artery. Sensory disturbance from alcohol.

"The external surface of the body in this state is easily affected and disordered. The vessels of the skin are markedly relaxed when the influence of alcohol is re-excited by a renewed dose; the face and ears redden, and the whole of the cutaneous surface seems in a glow. At first the vessels regain their calibre when the alcohol ceases to exert an influence on them; but by-and-by, under the frequent repetition of the relaxation, the vessels begin to retain the unnatural change to which they have been subjected, and in the extreme parts, such as the cheek and the nose, they assume a distinctive appearance of confirmed vascular relaxation. For the same reason—deficient tonicity of the vessels—the cutaneous secretion is irregular; a small amount of exertion creates a too free perspiration; a Vascular changes in the skin.

little excess of covering to the body has the same effect. The perspiration is profuse, and, condensing quickly on the skin, as water, instead of going off in vapour with a warm glow, is clammy, heavy, and most oppressive. At times the secretion from the skin is extremely acid.

"During this state eruptions on the skin are not unfrequent. An eczematous eruption occurring in some extreme parts, as the toes, and consisting at first of a slight vesicular rash, with a thin fluid discharge, and afterwards with a scale which is cast off with much irritation, is one of the most common series of signs of the reduced nervous control over vascular supply induced by alcohol.

Symptoms of systemic failure.

"The temperate alcoholic, suffering a deterioration of organic structure which he himself does not, perchance, recognize, but which is always present in him, in some form or degree, feels, as his years advance, other phenomena of disease. He detects too acutely changes of season. The summer is more than genial to him, it is life-giving; the autumn is dreary, the winter depressing, and the first months of spring, with their keen easterly winds, are almost destructive. Neuralgic, rheumatic, or gouty pains, varied according to the diathesis of the man, tease or torment; and at last, long before the natural period for cessation from active work has arrived, the man is an old man. His relaxed vessels are ready to give way under light pressure, and his life is ready to depart under natural shocks which to a man of healthy structure would be but as passing vibrations resisted by the force within the body and neutralized.

Organic diseases from alcohol: Disease of the heart.

"Disease of the heart is a common organic malady incident to the alcoholic constitution of body. The form of disease is usually either a degeneration of the muscular fibre—an interposition within the fibre of fatty substance, by which the true muscular elements are partially replaced; or a degeneration produced from excess of fluid between the muscular elements.

"In these states the power of the heart to propel the blood is enfeebled, and, although for a much longer time than might be expected the heart responds to the agent that is destroying it, and continues to beat more freely when the extreme vessels are paralyzed and the arterial recoil is weakened, a time at last comes when the very

absence of the recoil is the forerunner of death. For it is by the recoil of the great arteries that the heart itself is fed with the sustaining blood.

"Disease of the blood-vessels is another phase of the organic disease from alcohol. This change, also a deterioration of structure, may precede the changes in the heart, or may run with them.

"In men whose hearts are principally strong, the vascular form of disease is often the first, and is the cause of death while the heart remains comparatively sound. The deterioration is, as a rule, in the arterial vessels, and may occur in them, either in their wider courses or in their minute or peripheral course. In the larger arteries, the change induced in the coats of the vessel may be a deposit, calcareous or bony-like, a thinning, a dilatation. or an atheromatous or fatty transformation of tissue. Whichever of these changes occurs, the result is that the vessel is weakened at the part, and the elastic coat of the vessel, upon the recoil of which so much depends, is rendered helpless. The arch of the great aorta, the basilar artery of the brain, the arteries of the heart itself, are parts of the arterial circuit very subject to this modification of structure from alcohol. Sometimes the diseased vessel becomes plugged with coagulated blood, and through it, then, no more blood can flow; sometimes, under a little undue pressure, the vessel gives way, and the escape of blood, through the rupture, leads to rapid dissolution.

"In the minute vessels—I mean the vessels that lie intermediate between the arterial trunks and the returning veins—the changes produced are infinitely refined and subtle. It is probable that all the structural organic deteriorations from alcohol commence in this minute circulation in which the processes of nutrition are during health in active progress.

The lungs: Alcoholic phthisis.

"The sufferers from alcoholic phthisis are usually somewhat advanced in life; the average age has been forty-eight years. They are often considered healthy persons until they are stricken with the particular affection, and the figure and conformation of their bodies is good. They are not of the class of drinkers who sleep long, take little exercise, and grow dull, pale, and pasty-looking, but are those who take moderate or short hours of rest, go on

actively through their duties, and, primed by frequent resort to the spirit cup, live as much, work as much, see as much, and enjoy as much as they can. They are rarely intoxicated, but constantly are 'mellow.' Beer and thin wines are to them as water; they can take strong wine *ad libitum*, and even under strong spirit are less influenced than other men, unless—to use the pitiful jest in which they indulge—they 'pile on the agony.'

"For many years these sufferers, owing to a splendid conformation of body, may live apparently uninfluenced by any disease, in which respect they differ from alcoholics generally, and in fact are instanced by the votaries of Bacchus as men who drink deep and seem never the worse for drinking.

"This wonderful health is, however, after all, apparent only. Questioned closely, it is soon discovered that the victims have long been out of health; that a slight influence, such as a cold, has easily depressed them; that subjected to unusual excitement or unusual fatigue, their balance of strength against exertion is weakened, and that an extra quantity of alcohol has often been wanted to bring them up to their required activity. Nevertheless, they pass for healthy men: they look healthy, and they retain their good looks to the last. The blotched skin, the purple-red nose, the dull protruding eye, the vacant stare, the alcoholic face of the complete sot, is not traceable in them; neither is the wan, pale, sunken cheek of the ordinary consumptive observable. The face, in short, is the best part of these subjects of alcoholic phthisis. When they are fatally stricken, often when their muscles have lost their power, and the clothes hang like sacks on the emaciated body, their countenance is still ruddy, and the expression firm; so that friends, too ready to be hopefully deceived, believe in recovery when every chance of it has passed away. In some instances death is so quick from this disease, that the body generally is not greatly emaciated, but, like the face, conveys the deception of strength. There is no remedy whatever for alcoholic phthisis. It may be delayed in its course, but it is never stopped; and not unfrequently, instead of being delayed, it runs on to a fatal termination more rapidly than is common in any other type of disorder.

"The organ of the body which most frequently perhaps undergoes structural changes from alcohol is the *liver*. The capacity of this organ for holding active substances in its cellular parts is one of its marked physiological distinctions. In instances of poisoning by arsenic, antimony, strychnine, and other poisonous compounds, we find, in conducting our analyses, the liver to be as it were the central depôt of the foreign matter. It is, practically, the same in poisoning with alcohol. The liver of the confirmed alcoholic is probably never free from the influence of the poison; it is too often saturated with it. The liver: Diabetes.

"The effect of the alcohol upon the liver is through the minute membranous or capsular structure of the organ, upon which it acts to prevent the proper dialysis and free secretion. The organ at first becomes large from the distension of its vessels, the surcharge of fluid matter, and the thickening of tissue. After a time there follow contraction of the membrane and slow shrinking of the whole mass of the organ in its cellular parts. Then the shrunken, hardened, roughened mass is said to be 'hob-nailed,' a common but expressive term. By the time this change occurs, the body of him in whom it is developed is usually dropsical in its lower parts, owing to the obstruction offered to the returning blood by the veins, and death is certain.

"The *kidney*, in like manner with the liver, suffers deterioration of structure from the continued influence of alcoholic spirit. Its minute structure undergoes fatty modifications; its vessels lose their due elasticity and power of contraction; or its membranes permit to pass through them that colloidal part of the blood which is known as albumen. This condition reached, the body loses in power as if it were being gradually drained even of its blood. For the colloidal albumen is the primitively dissolved fluid out of which all the other tissues are by dialytical processes to be elaborated. In its natural destination it has to pass into and constitute every colloidal part. The kidneys: Calculus.

"In the eyeball certain colloidal changes take place from the influence of alcohol, the extent of which have as yet been hardly thought of, certainly not in any degree studied, as in future they will be. We have learned of late years that the colloidal lens, the great refracting The eyes: Cataract.

medium of the eyeball, may, like other colloidals, be rendered dense and opaque by processes which disturb the relationship of the colloidal substance and its water. By such process of disturbance the lens of the living eye can be rendered opaque, and the disease called cataract can be artificially produced. Sugar, and many salts in excess in the blood, will lead to this perversion of structure, and in course of time alcohol, acting after the manner of a salt, is capable, in excess, of causing the modification. In the eyeball, moreover, alcohol injures the delicate nervous surface upon which the image of all objects we look at is first impressed. It interferes with the vascular supply of this surface, and it leads to changes of structure which are indirectly destructive to the perfect sense of sight.

Sleeplessness.

"A perverted state of the vessels of the brain, and an unnatural tension to which they are subjected from the stroke of the heart that is under the influence of alcohol, sets up one telling and most serious phenomenon—I mean *insomnia*, inability to partake of natural sleep.

Nervous diseases from alcohol.

"The brain and spinal cord, and all the nervous matter, like other parts, become subject, under the influence of alcohol, to organic deterioration. The membranes enveloping the nervous substance undergo thickening; the blood-vessels are subjected to change of structure by which their resistance and resilience are impaired; and the true nervous matter is sometimes modified, by softening or shrinking of its texture, by degeneration of its cellular structure, or by interposition of fatty particles.

"These deteriorations of cerebral and spinal matter give rise to a series of derangements, which show themselves in the worst forms of nervous disease.

Epilepsy from alcohol.

"Epilepsy is but an extension of the spasmodic start. The seizure usually occurs at first in the night and during sleep, and may not be distinguished by the sufferer himself from one of many old attacks of what he probably calls 'nightmare.' In time some evidence is left of it in form of bruise or bitter tongue. It is cured sometimes spontaneously by simple total abstinence from alcohol. In its later stages it is, however, as incurable as any other type of this serious and intractable malady.

Paralysis from alcohol.

"Alcoholic paralysis developes itself in two forms of paralytic disease. It is in some instances local, affecting

one limb or one side of the body, and leaving the will and the memory entire, or at most but slightly enfeebled. It is a paralysis that in a chronic manner runs counterpart with that deficient power of co-ordination of the muscular movements which marks the passage from the second to the third degree of acute intoxication. It comes on steadily, gradually, and for a long period seems, to the victim of it, to be temporarily relieved by the use of the agent that produces it. At last it is complete, and as a rule—to which rule nevertheless there are, happily, many exceptions —it is irrecoverable. The exceptions to the rule would, no doubt, be much more numerous if the injunction of the physician 'to abstain absolutely' were not only duly enforced and solemnly promised, but faithfully carried out.

"The second form of alcoholic paralysis is general in its development and accomplishment. It commences commonly after a long stage of muscular feebleness, persistent dyspepsia, persistent fœtor of the breath, and many other warnings, with thickness of the speech and general failure of muscular power. To these symptoms succeeds that alienation from the natural mental state, known as loss of memory. This extends even to forgetfulness of the commonest of things; to names of familiar persons, to dates, to duties of daily life. Strangely, too, this failure, like that which indicates, in the aged, the era of second childishness and mere oblivion, does not at first extend to the things of the past, but is confined to events that are passing. On old memories the mind, for a limited time, retains its power; on new ones it requires constant prompting and sustainment.

"If this failure of mental power progress, it is followed with further loss of volitional power. The muscles remain ready to act, but the mind is incapable of stirring them into action. The speech fails at first, not because the mechanism of speech is deficient, but because the cerebral power is insufficient to call it forth. The man is reduced to the condition of the dumb animal. The failure of speech indicates the descent still deeper to a condition of general paralysis in which all the higher faculties of mind and will are powerless, and in which nothing remains to show the continuance of life except the parts that remain under the dominion of the chain of organic or vegetative

nervous matter—the picture is one of breathing death; of final and perpetual dead intoxication."

Prof. Krafft-Ebing on alcoholic tremor.

In his *Psychiatrie* (Stuttgart, 1883), Prof. Krafft-Ebing says of the distressing uncontrollable tremor attending habitual drunkenness—

"The integrity of the motor-functions suffers early among drunkards. The most important, earliest, most frequent, most lasting disturbance is tremor of the voluntary muscles. It is most pronounced in tongue, lips, face, hands. It may, however, become wide-spread. . . . It is remarkable that this alcoholic tremor, besides its form and general character, is most pronounced in the sober condition, and diminishes after partaking of alcohol.

"It often developes at the beginning of the disease by reason of increased reflex excitability of the spinal cord to general convulsive movements and twitching in the calves. These occur especially at the moment of falling asleep, and next to the phantasms are the principal reason of the increased difficulty in getting to sleep from which these patients suffer."

Scientific American on general diseases resulting from beer.

As regards the general diseases resulting from the use of beers, I quote the following abstract from the *Scientific American*, published in the *Temperance Record*, July 5, 1883:—

"For some years past a decided inclination has been apparent all over the country to give up the use of whisky and other strong alcohols, using as a substitute beer and other compounds. This is evidently founded on the idea that beer is not harmful, and contains a large amount of nutriment; also that bitters may have some medical quality which will neutralize the alcohol it conceals, etc. These theories are without confirmation in the observations of physicians' chemists. The use of beer is found tc produce a species of degeneration of all the organism, profound and deceptive. Fatty deposits, diminished circulation, conditions of congestion, perversion of functional activities, local inflammations of both the liver and the kidneys are constantly present. Intellectually a stupor amounting almost to paralysis arrests the reason, changing all the higher faculties into mere animalism, sensual, selfish, sluggish, varied only with paroxysms of anger that

are senseless and brutal. In appearance the beer-drinker may be the picture of health, but in reality he is most incapable of resisting disease. A slight injury, a severe cold, or shock to the body or mind, will commonly provoke acute disease, ending fatally. Compared with inebriates who use different kinds of alcohol, he is more incurable, more generally diseased. The constant use of beer every day gives the system no recuperation, but steadily lowers the vital forces. It is our observation that beer-drinking in this country produces the very lowest form of inebriety, closely allied to criminal insanity. The most dangerous class of ruffians in our large cities are beer-drinkers. It is asserted by competent authority that the evils of heredity are more positive in this class than from other alcoholics. Recourse to beer as a substitute for other forms of alcohol merely increase the danger and fatality. Public sentiment and legislation should comprehend that all forms of alcohol are dangerous when used."

B. *Mental Phenomena and Diseases.*

§ 47. The mental phenomena due to alcohol depend upon the physiological disorders produced by the alcohol on the nervous system, and in the degree of their violence and subtlety cause derangement in the manifestations of intelligence.

Under the category of *acute alcoholism* science includes all those appalling, though apparently evanescent, phenomena which present themselves after alcohol has been swallowed.

Dr. Huss on acute alcoholism.

In his *Alcoholismus* (vol. ii., 1851), Dr. Huss, of Stockholm, says, "Acute alcoholism may be divided into two groups. 1. Such symptoms as appear in persons at the time of intoxication, but who are not often intoxicated. 2. Such as characterize the condition of those habitually intoxicated. The first condition is that of drunkenness; the second is that of drink craze (*delirium tremens*). In the condition of drunkenness three distinct degrees may be tolerably clearly discerned, in spite of the variations depending upon the amount and quality of the dose—the age, sex, temperament, and disposition of the drinker.

"The *first degree* is marked by increased activity of

several of the mental and bodily functions, increased temperature of the skin, which receives a richer colour, a keener sparkling of the eye, a stronger muscular activity, the movements being more lively and energetic, the pulse high, the heart-beats fuller, the mood easy, both past and future fade, the present becoming all. This state is usually termed 'jolly.'

"It continues for a short time, and then languor overtakes all the functions whose activity has thus been overtaxed.

"The *second degree* is known by alternately depressed and exalted activity, morally as well as physically. The face becomes red, burning, and often blazing. The eye loses lustre, stares, sometimes in a feeble, inane way, sometimes with a ferocious expression; the ears are filled with rushing, ringing noises, the pulsations in the temple and neck are violent, the neck-veins are strongly distended; feelings of faintness are experienced. The vision is blurred and confused, the tongue errant and stuttering, the heart throbs strugglingly, the voluntary muscles lose their elasticity, *i.e.*, their continuous elasticity; the walk is uncertain, stumbling and reeling; the skin is hot and perspires, the secretion of urine is unusually great, the breath smells of alcohol, the intelligence is in a high degree disordered, and mistakes are made both in deed and word, which the sufferer barely, if at all, remembers when he returns to sobriety.

"The *third degree* is characterized by a more or less complete suspension of intelligence, feeling, and power of motion. The face takes on a bluish-red hue; the eye is staring and glassy, with distended pupil; the breathing is a snoring and puffing with open mouth, from which often dribbles a frothy, blood-mixed saliva, stinking with alcohol; the heart and pulses beat weakly, and at last almost imperceptibly; the skin temperature declines till finally the surface becomes cold and clammy.

"The muscular system is so enfeebled that, if support is removed from the extremities, men fall down as would a dead mass, and so completely is feeling deadened that the hardest pinch is not felt, and both hearing and vision are equally dulled. Consciousness has totally vanished, and coma has taken its place. This state of unconsciousness

is what is meant by the term 'dead drunk,' and may continue for eight, twelve, even twenty-four hours, and sometimes longer.

"Though, after the first degree of drunkenness, the normal condition returns without marked results, it is not the case after the second and third degrees have been experienced. After awakening from these the head is heavy, sometimes faint and dizzy, aching and thumping, especially over the eyes, which are weak, expressionless, and bloodshot; the tongue is coated, there is a bitter and disgusting flavour in the mouth, great thirst is felt, with aversion for food; vomiting, a sense of tension in the pit of the stomach, fœtid eructions, diarrhœa, and heavy depression and weakness of body and mind follow before the heart and pulse begin to beat firmly and normal health returns.

"When death occurs from drink, the brain smells of alcohol, and is overcharged with blood, the lungs are filled with black blood, the heart and veins are sometimes filled with thick, and at times coagulated blood—all the same general signs marking death from narcotic poisons.

"The second group of *alcoholismus acutus* is *delirium tremens*, or *mania-a-potu*" (described by Pliny as sleep agitated by furies). "To this state a person comes after a long use of alcoholic drinks, whether he has taken them periodically or steadily, and with or without the immediate results of being drunk. Indeed, a course of drinking which has not resulted in drunkenness tends more directly to a final culmination in this dread disease.

"The outbreak of this disease is usually preceded by gastric disorders for a longer or a shorter period, followed by insomnia, with inclination to fantasies. In other instances it breaks out suddenly without premonition, but in such cases—with very rare exceptions—it has been provoked by some accidental causes, such as violent emotion, exterior hurt, great loss of blood, etc.

"The characteristic manifestations of this disease are similar, consisting chiefly in insomnia, hallucinations, and trembling of the muscles. A certain unrest takes possession of the whole being of the victim. He cannot keep his thoughts together, he is intensely irritable; sleep disappears or is broken with visions; the face and eyes assume

a livelier seeming; the hands, arms, and legs tremble in spite of his efforts to restrain this tremor, and at last the full delirium leaps forth. This may be continuous or intermittent; is generally most violent at night and easiest during the forenoon. At its height it is violent frenzy, but at moments there is a preternatural quiet or a burst of joy; these spurious lulls being of all kinds and grades. This condition continues ordinarily for three, four, and sometimes six or seven days, when it succumbs to sleep, which is critical, lasting for eight, twelve, or twenty-four hours, sometimes even more, and usually accompanied by profuse sweating. On awakening from this the sick man sees no visions, but feels clear in mind, though feeble and dejected, and is convalescent. In other cases this sleep is short, disturbed constantly with troubled visions, the powers sink more and more into collapse, and in this state death often closes the scene."

Prof. Krafft-Ebing on the analogy of acute alcoholic intoxication with insanity.

Prof. Krafft-Ebing, one of the first of living authorities on insanity, describes (*op. cit.*) the relations between drunkenness and insanity as follows:—"Acute alcoholic intoxication furnishes by far the most striking analogy with insanity, at the same time the most comprehensive one, as it represents all the varieties of the same. We find here all the forms of insanity, from the condition of slight melancholy—as intoxication sometimes produces it in the form of the so-called *drunken misery*—up to those extreme states of complete cessation of psychical functions. The most severe form of insanity—*paralytic dementia*—is, under the form of intoxication, sometimes so completely copied as to be with difficulty distinguished. Strictly speaking, intoxication is nothing but artificial madness. In most cases, the first effects of alcohol are seen in slightly insane excitement.

"All bodily and mental actions are increased, the flow of thought quickened. The taciturn become talkative, the quiet lively. A heightened estimate of self leads to boldness, bold behaviour, cheerfulness. A greater need for muscular movement, a tendency to violent exercise, shows itself in singing, screaming, laughing, dancing, and all kinds of wanton and very often aimless acts.

"The laws of decency are still respected, form and manner are observed, a certain self-control is exercised.

But with progressive intoxication a consecution of refined ideas and moral judgments which control and influence the sane, are abrogated just as in maniacs.

"At this stage the drunken man abandons himself entirely, reveals the defects of his character and his secrets (*in vino veritas*), sets at defiance manners and decency, becomes cynical, brutal, arrogant, violent. Now he has also lost the capability of judging of his position—he considers himself just as little drunk as the maniac considers himself mad, and is offended if one makes a just diagnosis of his case. . . . There is a growing inclination towards all the lowest forms of vagabondism; brutal disregard of the rights and feelings of others, excessive sensuality and total shamelessness leading the drunkard to all sorts of profligacy in the open street; the craze for reckless purchase and equally instant and reckless destruction of what has been bought, and the revolting egoistic delusions in which the drinker fancies he is enormously wealthy, an emperor, or claims to be Christ or God Himself; and the tragical hallucination that he is pursued for the purposes of robbery or poisoning.

"Finally, it comes to a state of mental weakness, to a loss of consciousness, a vanishing of the senses; there appear hallucinations, illusion and confusion occur, and a state of deep idiotic stupor; and, just as with the paralytic, slobbering speech, staggering gait, uncertain movements, conclude the disgusting scene. The similarity between artificial and real insanity is further proved by the fact that sometimes—always where there exists a peculiar tendency to insanity—intoxication develops in the very beginning into acute delirium or transitory mania; or even that a single intoxication produces immediate and lasting madness."

Dr. Mason on alcoholic insanity.

Since the days of Dr. Huss, medical science has developed yet further divisions of acute alcoholism. In Dr. Lewis D. Mason's* address on *Alcoholic Insanity* at the annual meeting of the American Association for the Cure of Inebriates (April 26, 1883), I find the following divisions of acute alcoholism:—

* Consulting Physician, Inebriate Asylum, Fort Hamilton, Long Island, U.S.

"1. Acute alcoholic mania, or *mania-a-potu.*
"2. Acute alcoholic delirium, or delirium tremens.
"3. Alcoholic epileptiform mania.

Mania-a-potu.

"*Mania-a-potu* does not, as a rule, occur in the habitual drunkard, but in persons who occasionally drink to excess. The patient is unconscious of his acts during the paroxysm, and usually extremely ashamed and repentant." Ordinarily the attack is brief, but, "in exceptional instances, the person may remain maniacal for four or five days after a drinking bout. . . . There is no crime in the calendar that these alcoholic maniacs may not commit; their reason is temporarily dethroned; they are unconscious of, not the character of their actions alone, but of the acts themselves, and are therefore irresponsible.

Characteristics.

"One characteristic of this mania is that the natural strength of the person may be greatly increased, and a man of ordinary physical development may thus become a giant in his alcoholic fury. . . . Another marked characteristic of *mania-a-potu* is that it is not preceded or followed by delusions or hallucinations, as other forms of alcoholic insanity are. The assaults are apparently motiveless, the frenzy cyclonic, in its oftentimes terrible results. . . . The following case occurred in my experience.

Examples.

"The person was a United States contractor, and at times received large sums of money from the Government. He was an occasional inebriate: during the period of his debauches he was very violent, dangerous to his wife and those about him, making assaults on every one. After the paroxysms of mania passed off, he was repentant, extremely grieved, and did all in his power to amend the evil he had done. After one of his fits of intemperance, in a mood of repentance, he sought to conciliate his wife by the expenditure of a large sum of money. He rented a villa on the Hudson, furnished it extravagantly, bought horses and carriages, and employed a retinue of servants, and in every way strove to make restitution for his past misdeeds. Some time after this—though not a lengthy period—he received a large sum of money from the Government, and again went on one of his debauches, returning home a madman. He procured an axe; his wife fled at his approach, and locked herself in a room at the top of the house; the servants escaped to a neighbour's. The maniac had full

control of the premises, and proceeded to demolish the furniture. A grand Steinway piano was reduced to splinters, and ruin spread in every direction as his insane fury dictated. Fortunately, he met no one, or homicide would most certainly have been added to his acts of destruction. His wife eventually procured a divorce, and he died in an asylum. His son became an inebriate, and, coming under my care, I was enabled to obtain the family history.

"The son was a periodical inebriate, and, when under the influence of alcohol, was, like his father, a maniac aggressive, homicidal, and with exceedingly dangerous and destructive tendencies."

Dr. Mason also cites the following from the fourth annual report of the New York State Inebriate Asylum (1866) :—"A young man in Madison Co. in this State, in the year 1857, while under the attack (*mania-a-potu*), killed his father and mother and cut out their hearts, which he roasted and ate. He was arrested, thrown into prison, and indicted for murder. He was brought into court for trial, where Judge Gray, of the Supreme Court, stated that the case could not be tried, as there was no motive to prompt a man to commit such a crime, and the man was sent to the Insane Asylum."

Delirium tremens.

"In *acute alcoholic delirium*, or *delirium tremens*," continues Dr. Mason—"the latter synonym being often a misnomer, as tremor is not unfrequently absent," but, unlike *mania-a-potu*, is always attended by hallucinations or delusions—"optical delusions are present, and these are readily misconstrued by a disordered intellect into all kinds of forms and fantasies, horrible or grotesque. There is perversion of the hearing, and natural sounds receive undue importance, and are readily misinterpreted by the delirious patient. There is less perversion of taste and smell than of the other senses ; but the fact that the former may be perverted is of interest, as accounting, in some measure, for the delusion of poisoning so common in the more subacute and chronic forms of alcoholic mania.

Its symptoms.

Its general characteristics.

"The delirium is characterized by great changeableness of delusions, although there is one delusion of fixed prominence to which all others are secondary. The perversion of the various senses form, or change, or direct the

character of the delusions, which are accompanied by hallucinations of hearing, vision, and tactile sensation. Ordinary sounds receive undue importance, or are converted into terrible threats, the air is full of voices, visions constantly appear and disappear. Commonplace objects assume the form of demons or other horrid objects. Hyperæsthesia of the skin, perverted tactile sensation, gives the belief that insects are crawling over the integumen. Irregular chilly sensation and formication, or pricking sensations, are easily converted by the delirious patient into snakes, rats, or other vermin. The patient borrows his delusions largely from his surroundings, although all authorities agree that the avocation of the patient, or the last prominent act he may have engaged in, establish the central delusion of his delirium. If his delusion partakes largely of personal danger, he makes repeated attempts to escape, and often effects his purpose with great cunning.

"He will assault those about him in his attempts to get away, or if he imagines they are his enemies. These acts of violence are generally seen in the more maniacal form of delirium. Delusions of a melancholic character are not unfrequently present; preparations are being made for his funeral, the table is a bier, the sheets are his shroud; or he is to be drowned, or hung, or terribly abused in some way; he begs for mercy, he prays for deliverance, and in a paroxysm of terror may commit suicide if not closely watched."

Dr. Maudsley's description of delirium tremens.

In this connection Dr. Mason quotes the following from Dr. Maudsley:—

"*Delirium tremens* might be described justly as an acute alcoholism, since there is a chronic alcoholism which is characterized by the slow and gradual development of similar symptoms; in truth, a chronic *delirium tremens* which is called the insanity of alcoholism. Premonitory of it is the same sleeplessness, the same motor restlessness, the same nausea and want of appetite, that go before *delirium tremens*. Instead, however, of the rapidly rising excitement, the changing hallucinations and delirious incoherence then following, there is great mental disquietude with morbid suspicions or actual delusions of wrong intended or done against him, of wilful provocations and persecutions by neighbours, of thieves about his premises,

of unfaithfulness on the part of his wife, and the like suspicions, which are frequently attended with such hallucinations of hearing, of sight, of tactile sensation, as threatening voices heard, insulting gestures or mysterious signs seen, electrical agencies felt. In this state a violent-tempered man, resolved to be even with the scoundrels whom he declares to be persecuting him, sometimes does sad deeds of violence."

Prof. Krafft-Ebing on crimes committed under alcoholic hallucinations.

Prof. Krafft-Ebing, in his book on *Judicial Psycho-Pathology* (Stuttgart, 1875), cites authorities for some terrible crimes committed under the hallucinations produced by drink; for example, that of the murder done by Thiel, a German workman, industrious and orderly, and a most affectionate and loving husband and father. In a state of drunkenness, Thiel was suddenly possessed by the idea that he ought to kill his child. He sprang from the bed, where this idea came to him, and, sinking in terror upon his knees, clasped his hands, and cried out, "O Lord God! Lord Jesus! I must kill my child!" But the poor wretch overcame this frenzy, patted the little fellow on the head, and bade him sleep. Soon after, the frightful temptation returned with overwhelming power; he seized an axe and murdered the child, muttering agonized prayers and weeping bitterly as he did the deed, which at once sobered the miserable father.

If drink can thus fearfully and totally pervert the affections, how terrible and subtile must be its effect on the whole moral being!

Dr. Mason on alcoholic epileptiform mania.

Of *alcoholic epileptiform mania* Dr. Mason says, "There is no form of mania more dangerous than that which occurs in the epileptic when influenced by alcohol; it matters not whether his epilepsy be directly due to alcohol or to other causes. . . . He is most dangerous because 'he *adds* to the impulses—sometimes so terrible—to which he is subject from his disease, those which he draws from intoxication.'"

The symptoms in *chronic alcoholic insanity* are divided by Dr. Mason into several groups.

Chronic alcoholic mania.

He describes the first — *chronic alcoholic mania — maniacal type—homicidal tendencies*—as "one of the most dangerous types of mania that is met with, especially when the mental alienation is not ushered in or accom-

panied by a febrile condition, or other symptoms that usually point out a departure from health. He is therefore not regarded as a sick man by his friends, although they may think he acts a little 'queer;' he is moody, taciturn, he whispers his suspicions, he picks out his special enemies, he prepares himself against assault, carries weapons on his person, or conceals them in a secret place, he broods over his fancied wrongs; finally, time and place suiting his purpose, the revengeful design he has been nursing for months and hinting about to his immediate acquaintances now finds an outlet, and the press publishes a case of 'murder in cold blood;' his history by degrees comes out, experts are summoned, his true condition is ascertained, and he is sent to an asylum. One very common delusion is that of marital unfaithfulness; some one, generally a near acquaintance who is on visiting terms with his family, is selected as the one who has destroyed the sanctity of his hearth and home. Too often his insane delusions are treated as simply jealousy, but it is a morbid jealousy of the most intense character, and may in its insane fury take the life of some innocent victim. It is a good rule not to take the homicidal vagaries of an intemperate man as a matter of trifling importance, but when he breathes out—it may be threatening and slaughter, although it may be in an undertone—let him be promptly arrested and examined as to his sanity."

Its symptoms.

Chronic alcoholic melancholia.

Of *chronic alcoholic melancholia—suicidal tendencies*—Dr. Mason says, "The patient is depressed, weeps readily, to a certain extent he is confidential, seems to crave sympathy. He will follow you about, and ask your aid against supposed evils that are impending over him. I recall one case where the patient believed that his funeral would take place in a few hours. He could hear people preparing for it; he begged me to delay, if possible, the ceremony; he was exceedingly sorrowful and depressed. The delusions are various; persons dead are living, and the living are dead. Events that have happened long since are being re-enacted. Delusions as to locality, as I have said, are often marked. The delusion of poison in the food or drink is oftentimes a very troublesome one. Such persons, however, will take ale or other stimulants when they refuse food, a perversion of taste being the

Its painful delusions.

probable cause of this form of delusion we have referred to. This delusion is usually subsidiary to more prominent, or leading mental aberrations. The central or prominent delusion is the first to come, the last to leave. As his disordered intellect rights itself, he clings to this oftentimes persistently, and finally, when his reasoning powers return, he listens to argument, and gives up his delusions as a fallacy. It is a curious fact, as in the case we have mentioned, that in subsequent attacks or relapses the same delusions so prominent in previous attacks return, and remain with the same persistency."

It would seem as if the intelligent and thoughtful would find in the manifestations of the simplest forms of drunkenness alone, an all-sufficient warning against the use of alcohol. Yet these are but the first signals in a series of warnings so terrible that, in view of them, it is truly surprising that alcoholism ever became a universal ill; or would be so, did we not in this very fact discover one of the worst effects of the evil—the stultifying of moral sensibility.

In the mental phenomena included under the head of alcoholic insanity, we find that the physical channels for the expression of intelligence have been so corroded and mutilated by alcohol, that the communication between body and mind becomes always partially, sometimes wholly, vitiated, and what is left of it so perverted, that the alcoholic has practically reversed the "descent of man"—has dropped himself to a plane where morally the beasts are above him. And greater still than the evil thus done to himself and those around him, is that which he does to his descendants in transmitting this curse.

CHAPTER VII.

MORAL RESULTS.

Inquiry into the relations between drink and crime.

§ 48. One of the most difficult points to settle in the investigation of the drink question is that of alcohol as a cause of crime. That drink is a chief cause of crime is disputed not only by those who wish to prevent the truth from being known, but also by some of those who really wish to know the truth; and such marshalling of accurate data, philosophical research, medical and psychical analysis, as would take it out of dispute, has not yet, it seems, been adequately brought to bear upon it. If, as the judges of criminal courts affirm, and as facts everywhere seem to confirm, drink is the chief cause of crime, it is of the first importance that a knowledge of this fact should be grounded in the popular mind, as it would undoubtedly and naturally do more than anything else to convince the general public of the real scope and character of the drink evil. The importance of this is emphasized at intervals by the publication in reputable journals of ingenious documents, which by omitting the comparative data necessary to a correct understanding, and by erroneous deductions, convey impressions wide of the truth.

Erroneous inferences of a writer in the *Pall Mall Gazette*, Nov. 9, 1883.

One example will suffice in illustration. In the *Pall Mall Gazette* (Nov. 9, 1883) appeared the following:—

"Is Drink the Chief Source of Crime?

"A correspondent writes to us as follows on the subject of intemperance and crime:—

"It is by no means an unusual circumstance for judges at assizes and recorders at courts of quarter sessions, while addressing grand juries, and deploring the increase of

crime, to speak of its close relationship with intemperance, regarding the one as the sure harbinger of the other. If the accepted theory be true, the districts where drunkenness more extensively prevails would be the most prolific in crime, and drunkenness and crime would rise and fall in the social barometer in equal degrees. Is it so? Let us see.

"The residents of the rural districts of Durham are more prone to habits of intoxication than those of any other county in England, and this evil, unfortunately, is on the increase. In 1879 the number of persons charged by the county police with the offence of drunkenness was 7178; in 1880 the number was 8088; in 1881, 9124. The number of crimes committed in the same districts was, in 1879, 549; in 1880, 414; in 1881, 426. While, therefore, drunkenness has been increasing, crime has been decreasing, and while the charges of drunkenness for the year amount to nearly fifteen for every thousand of the population, the crimes only reach 0·7 per thousand.* The people of Essex may be considered the most sober of all the inhabitants of the country. The charges for drunkenness last year numbered 289, or 0·9 to every thousand. The number of crimes committed there numbered 455, or nearly twice the number of charges against persons for drunkenness; but in Durham twenty persons would be charged with drunkenness to one charged with a crime that would be necessary to be tried by a jury. *Pro ratâ* with the population also crime is twice as extensive in Essex as in Durham.

"Northumberland is another county where intemperance runs high, yet the number of crimes committed by the rural population was in 1879, 76. In 1880 the number was 102; and in 1881, 67, or 0·3 per thousand of the population. In 1879 the number of persons charged with drunkenness by the police was 1916; in 1880, 1967; in 1881, 2145; so that here also, while drunkenness has been increasing, crime has been decreasing. Bedfordshire is another county where drunkenness exists to a very limited extent. The number of persons charged here with drunkenness in 1879 was 232; in 1880, 206; in 1881, 176, or equal to 1·7 for every thousand of the population. The

* See testimony of Justice Hawkins in chapter X.

crimes committed here were, in 1879, 76; in 1880, 82; in 1881, 102; or equal to 1·0 per thousand—so that crime is three times greater in Bedfordshire than in Northumberland."

The writer goes over Lancashire, Shropshire, Sunderland, etc., in the same manner, and suggests at the close that—

"It would be an easy matter to multiply the number of these illustrations to show that the close relationship between drunkenness and crime is a fallacy, and that the real source of crime exists in some influence, or some failing in moral rectitude, outside that which leads to intemperance."*

* Referring to this document in the *Pall Mall Gazette*, the *Alliance News* (November 17, 1883) says—

"In some police districts large numbers of drunken cases are dismissed without being taken formally before the magistrates. This especially prevails where such cases are in overwhelming abundance. Moreover, as a rule, in districts where drunkenness is most abundant, the tone of public feeling against it is apt to be most relaxed, and the disposition to regard tipsy noisiness as a peccadillo not worthy the notice of the police is pretty sure to be most prevalent. In such districts Watch Committees and magistrates are often personally implicated in the liquor traffic, and naturally fail to encourage their servants, the policemen, to be strict to mark and severe to seize. Where mayors, aldermen, and other leading public men are addicted either to liquor-selling or to liquor-tippling, even their silent influence will always act as a damper on the zeal of the constable. Hence it commonly happens that where there is most drunkenness the number of apprehensions by the police tends to dwindle, whereas these are likely to be more numerous where public opinion is most widely awake to the enormity and iniquity of the liquor traffic. Considerations like these are quite sufficient to show the folly of using the police books of different districts in proof of the comparative drunkenness of those districts. For the rest we need only add that when the judges protest, as earnestly as they are always doing, that most of the crime that comes before them officially is evidently caused by strong drink, they speak not in view of the number of police apprehensions of drunkards, but in direct recognition of the plain and undeniable facts that present themselves to their senses in dealing with criminal cases in their own courts. To doubt the correctness of their conclusions on such a matter is equivalent to writing down some of the most able men in the kingdom as poor, brainless, chattering fools."

I may add that the deference due to such statements as those made by the *Pall Mall Gazette's* correspondent must equally be due to statements of precisely similar scope and grasp; as, for instance,

These figures might mislead very many who are not specially and amply informed upon the subject, and not familiar with the various data, or the way in which such data essentially affect computation, comparison, and deduction.*

This "correspondent" challenges the almost unanimous testimony of the principal judges of the United Kingdom —a testimony covering scores of years of experience—that drink is the chief cause of crime. In this challenge one of two things is plainly intimated · either that the Judicial Bench of Great Britain have been and are fools or knaves; either these men, whose business it is to inquire into the causes of crime and to pronounce the verdict of law upon the criminal, have been, and are, all incompetent, or else have deliberately deceived the public. Certainly no sober Englishman will admit the former; and as to the latter, it would be difficult to discover or devise a motive, or a combination of motives, sufficient to induce even one—still less a long succession of judges—to concur in such a misrepresentation. Even were judges constitutionally prone to misstatements, no public body could be less interested in doing so, on the topic in question.

In stating the increase in arrests for drunkenness during the last three or four years—since the temperance agitation has become vitally a popular factor—the *Pall Mall* correspondent does not manifest any knowledge of the well-known fact that the laws against drunkenness in public have been enforced with increased vigour during this period, in various parts of the United Kingdom. Yet this fact is essential to an approximately accurate comparison of the general relations between drink and crime. For instance, during the reign of Queen Anne, when intoxication was regarded as a feat rather than a degrada-

those of a recent writer on the *Topography of Intemperance* (*Macmillan's Magazine*, Jan. 1882), who naïvely alludes to "this singularity in both towns and counties, that generally the larger number of public-houses will be found where there is the smallest amount of drunkenness, and . . . in Durham drunkenness prevails to a far greater extent than in any other English county." Ergo, make the people sufficiently and unanimously drunk and there will be no crime; multiply public-houses and there will be no drunkenness! ! ! Durham seems on the whole a most remarkable county!

* See opening remarks of chapter X. concerning statistics.

tion, and hardly any one was arrested for it; crime was terribly prevalent—what would this correspondent have deduced from statistics of the relations between drink and crime then?

Relations between sobriety and crime as contrasted with the same between drink and crime.

However difficult it may be to demonstrate the exact relations between drunkenness and crime, there is happily not the same difficulty in establishing the relations between sobriety and crime; of a hundred persons in the dock, few, if any, are total abstainers; and the relations between sobriety and the absence of crime is being daily practically demonstrated on various prohibition estates, as at Bessbrook in Ireland, etc.

So far as I have been able to pursue investigation on this point, I have been specially impressed with the following facts.

Examples of unintentional alcoholic criminality.

Crimes are not often conceived or committed during actual drunkenness, though often very dreadful ones do result from the negligence and oblivion caused by drink; such as the sea captain commits, when an overdose of grog makes him steer his ship on dangerous reefs; or the engineer, whose extra glass means a mismanaged engine, a collision, and the mangling and killing of people trusted to his care; or the drunken officer, when he muddles the order of his commander, and prematurely or altogether mistakenly exposes his men to slaughterous fire; or the drunken physician, whose reckless prescription or whose total neglect results in the death of some beloved one and the blasting of dear human hopes; or the drunken lawyer, who tipples away the life, honour, or property of his helpless client.

The quality of drunkenness shown to be dependent on the kind of drink used, and on the temperament and circumstances of the drinker.

The quality of drunkenness depends greatly on the nature of the intoxicant used, as well as upon the temperament and physical condition of the drinker. For example, it is well known that drunkenness occasioned by malt liquors generally induces a sluggishness of mind, a lethargy of the senses, in which frenzy or ferocity of thought or act, in which the formation of a plan, or execution of one previously conceived, are almost impossible.

It must be remembered, however, that the effect of malt liquors is greatly determined by the quality of the hops and the presence or absence of *cocculus indicus* or other adulterating ingredients. In an article on Beer and

Crime (*Medical Times and Gazette*, London, April, 1872), the following statement with regard to beer occurs: "Its intoxicating power is far greater than can be accounted for by the mere alcohol it contains. . . . Cheap and coarse varieties of the hop, a plant nearly allied to the Indian hemp or bhang, may be capable of producing a furious delirium quite apart from alcoholic intoxication. . . . A magistrate's clerk once told us that the worst assaults and crimes of violence in his district were men who drank at public-houses supplied by one particular brewery."

Wines—with the exception of the strongest and most viciously adulterated—generally cause an idiotic jollity, silly good-humour, meaningless generosity, coupled often with a kind of loose frankness of sensuality. Brief choler, sufficient for the commission of sudden crimes, is possible in this condition, but evil designs previously harboured are unlikely to recur or be carried out.

On the other hand, spirituous liquors,* especially those containing quantities of fusel oil—such as raw whiskies, gin, etc.—excite almost invariably a demon-like frenzy, and when thus intoxicated, people who in a sober state would neither conceive of, nor countenance violence, lust, or destruction of property or life, become capable of any imaginable infamy and crime.

The true field of direct alcoholic criminal activity.

These distinctions, which deserve most careful attention, and a large variety of sub-distinctions and differentiations, are necessary to any proper comprehensive estimate of the relations between drinking and crime. But the general truth remains, that not in the drunken state, but in the various intermediary stages between sobriety and intoxication, lies the field of alcoholic criminal activity.

General summary of physiological and mental results.

§ 49. It has been seen in the foregoing pages how alcoholic drinking lowers the whole plane of physical health; that it ruins digestion, poisons the circulation, making it sluggish, as in amphibious creatures; that it preserves waste tissue and checks excretion—making the human body, so to speak, a case or cask of preserved compost;

* "Beer is brutalizing; wine impassions; whisky infuriates, but eventually unmans."—Dr. Bock, of Leipsic, in article on the "Moral Effects of Food and Drink," in *British Medical Journal* (1879).

that this internal condition is presently externally advertised in disgusting changes of the countenance and bearing; that the nervous system after continued over-excitation becomes eccentric and fitful in its action—small causes putting it to the highest tension of irritability, while great reasons for excitement are regarded with apathy; that these derangements are attended with baleful visions, impure fantasies, weariness of self and disgust with life; the whole hydra evil culminating in idiocy, insanity, and temptations to and commission of all kinds of crimes and sensualities, theft, incendiarism, suicide, and murder.

Thus, in one terrible group we have the physical and mental results of alcoholism inextricably involved with the moral results, one causing the other and *vice versâ*, in a system of consecutive inseparable reactions—a banyan tree of human misery.

Dr. Hufeland on the insusceptibility to remedy of the drinking habit.

"Other vices," says Dr. Hufeland, in his work on *Poisoning by Brandy* (1802), "admit the hope of amendment, but *this* performs its work of destruction thoroughly, and without the prospect of remedy, for it extinguishes in the system all susceptibility for remedy," and indeed all consciousness of the need of such susceptibility.

Fable of the drunken man and sober pig.

I remember reading a fable to this effect:—Once there was lying by the side of a ditch, a pig; on the other side lay a man. The pig was sober, the man was drunk. The pig had a ring in its nose, the man had a ring on his finger. Some one passing exclaimed so that the pig heard it—"One is judged from the company he keeps." Instantly the pig rose and went away.

As the alcohol-poisoned body, in its need for its life-essential—water—takes more and ever more of the poison that creates but never slakes that thirst, so the alcohol-poisoned mind—in its need of the pure medium for its manifestations with which it was originally endowed—all clouded and astray, plunges deeper and deeper into all forms of reckless, coarse excesses, its hope for ever mocked by its own rudderless drifting continuance in sin begetting sin.

Physical and moral effects parallel.

For though body and spirit are distinct, yet in this life and for this life's purposes they are indissoluble, man having no expression beyond the manifesting power of the physical mechanism he dwells in. Thus it is seen once

and for all that a physical effect is a moral effect. As the sap in the tree permeates to the least curl in the least rootlet, and so determines what the tree shall be in the air, so whatsoever permeates man's physical system determines in kind and degree the manifestation of his spirit.

A notable exception to this rule.

But in saying that a physical effect is always a moral effect, one great exception must be made by marking the distinction between harm voluntarily and harm arbitrarily incurred. For example, an upright man, clean in mind, heart, and habit, who would not of himself under any temptation abuse his body, or ignore those rights of others invested in its purity, may in many ways be forced to do so through poverty, by exhausting labour, bad air, and poor food; or through wanton caprice he might be bound hand and foot, and have alcohol poured down his throat till he was "dead drunk,"—and instances of this kind might be multiplied *ad infinitum*.

In these cases the body suffers just as much as if the abuses had occurred by the consent of the will, but the *mind and character do not*—a beautiful evidence of the existence in the body of a tenant superior to and distinct from itself.

Of course such arbitrary injury could be inflicted, could extend over such a period as to undermine the moral force, but the very fact that it takes time and much time to do such devil's work as this, only serves to point my distinction.

But wherever a physical effect is produced by the consent of the will, we may look for the moral result in kind, and at last for the most deplorable of all results—in the extinction of will either to consent or reject.

Charles Lamb's pathetic warning.

In his *Confessions*, Charles Lamb, one of the brightest of gentle spirits ever consumed in the baleful fires of alcoholism, wrote:—

"Could the youth, to whom the flavour of his first wine is delicious, look into my desolation, and be made to understand what a dreary thing it is when a man feels himself going down a precipice with open eyes and a passive will—to see his destruction and to have no power to stop it, and yet to feel it, all the way, emanating from himself; to perceive all goodness emptied out of him, and

yet not be able to forget a time when it was otherwise—to bear about the piteous spectacle of self-ruin!"

The effect of alcoholism on the will.

§ 50. The chief power by which we attain and maintain true womanhood and manhood is the power of will of sane decision. And this power is the first stronghold to be attacked by alcoholism. If alcohol were a sentient being, it could hardly act with greater apparent intelligence than it does in its insidious sapping and mining of the will, as if it knew, *that* redoubt once carried, no further resistance need be feared. In this subjugation of the will, alcohol incidentally but very remarkably defines the distinction between will and intention—so often mistaken for each other, to the moral shipwreck of the mistaking ones. Will forms and carries out intention, but intention is not will.

Difference between will and intention. ("The road to hell is paved with good *intentions*." —Martin Luther.)

In alcoholism the will is destroyed, and intentions—like the arrows in a slain chieftain's quiver—become the passive agents of the victor's bow.

Is there a more contemptibly pitiable sight than that of the will-less drunkard, who, with half-drained glass in his shaking hand, assures you that it is "hizh 'ntenzhn to shtop drink'ng"?

Instance of the power of drink to annihilate the will.

Dr. John Cheyne, of Dublin, in *A Statement of Certain Effects of Temperance Societies* (1829), cites this remarkable instance of the thraldom of drink, especially in its power to keep down the once conquered will. A gentleman of birth and refined tastes, deservedly popular for his attractive qualities, became habitually intemperate. A dear friend wrote to him, "Your family are in the utmost distress on account of this unfortunate habit. They see that your business is neglected, your moral influence is gone, your health is ruined." To this he replied, "Your remarks are indeed too true, but I can no longer resist temptation. If a bottle of brandy stood on one hand and the pit of hell yawned on the other, and if I knew that I would be pushed in as surely as I took one more glass, I could not refrain. . . . You are all very kind. . . . I ought to be grateful, . . . but spare yourselves the trouble of trying to reform me; the thing is now impossible."

Man's will being destroyed—*facilis descensus Averni*, and that "Hell is the shadow of a soul on fire," becomes

the actual experience of the tempest-exhausted spirit, and in that gloomy shadow the panic-stricken family of the drunkard leads a rayless cowering life, more dreary than Christian's in the Valleys of Humiliation and the Shadow of Death—and there is no Great-heart to bear the poor wife and mother company—to teach or defend the hapless children.

Moral insolvency of the drinker in the relations and responsibilities of life: as son;

As son, citizen, neighbour, husband, father, and friend, the drunkard is insolvent; his responsibilities in all these relations are like obligations discharged by spurious notes, first consciously—for he is not a sot at once—afterwards mechanically offered. His mother! Does he remember the never-weary love, the gentle, watchful care and service and self-sacrifice, which rounded his young life day by day? Nay, to get a quartern of whisky he would pawn the bed on which she lies dying.

Citizen, neighbour, and friend;

His fellow-citizens, his neighbours, his friends! Why, they are persons to be borrowed from, if they will lend; to be stolen from, if they won't; to be chicaned, cheated, cajoled, worried, and wearied into giving the means for drink—almost always on pleas of a chance that can only be secured by a little ready money (for drones and knaves are cunning in the use of pleas which could honestly be urged by the deserving), a dodge deceiving neither; and the meanness of the drunkard in these relations, grafts a reflex meanness and sense of guilty partnership upon the one who helps him down.

Husband and father.

The drunkard's wife! Is she a being to cherish, watch over, and serve as a sane man finds his happiness in doing? Oh no, a victim to vent all his unleashed and degraded passions on, to cheat, to wheedle, to poison, to make into a penny-earning drudge, and to beget poisoned offspring from.

There is the reverse side, where the wife is the one who drinks away her intelligence, and sinks into the deepest mire of degradation, neglecting her husband and her children, destroying love, respect, and hope, bringing her family to want and despair, and keeping them there.

Home of the drunken wife and mother.

Such a home is the most miserable spot on earth—it is more wretched than the home where all are drunkards, for the contrast between the vain efforts and piteous hopelessness of the husband and father striving as he does to

retain his own manhood, to be mother as well as father to his helpless children, and the complete and obstinate resistance of the besotted companion and spoiler of his days—is one to make the strongest hope for the race falter. To such a *home* comes the weary father from his work at night—to see the dirt and the disorder he was forced to leave unremedied in the morning—grown worse for the orgies of the day—to see the children huddled away from the mumbling, blear-eyed, towzled, filthy-smelling heap on the straw, which is all they know of motherhood, and all he will ever know of wifehood; wailing for food, or too cold to wail, or perhaps stupefied from fear, or perhaps sucking at the half-drained bottle which has fallen from the mother's palsy-loosened clutch, too stunted and blunted to be glad to see him, even though he brings them the only food and the only care they ever get.

This is as much worse than where the father alone is the drunkard, as the degraded woman is a worse and lower creature than the degraded man. Worse, too, because, to womanhood and motherhood God has given the dominating moral effectiveness, whether for good or evil.

As contrasted with the same home when the wife and mother bears her burdens in patience and sobriety.

And in the drunkard's home, where the faithful wife and mother bears her burden without sinking into the sin which causes it, you will see something of the meaning of home saved to him and his family, something of the cleanliness and system which produce some kind of daily routine, a time for and a semblance of daily meals, however meagre the fare; the little ones are washed and combed, and, as far as may be, saved from the worst contact of the slums, where the father's sin locates the home. Sometimes one or more of the children will show a wonderful moral force and power of sympathy and helpfulness, by which the unfortunate mother's steps are stayed, and her heart saved from utterly breaking; for whatever poison the child has received from its father, the mother's love and virtue has also entered in to combat—to transmute, and, if not to eradicate, at least to prevent its gaining the supremacy. In many instances the mother's character has been able to wholly form and infuse that of the child, confining the evil birthright bestowed by the erring father to the child's stunted and crippled body. Rarely indeed are such signs of hope found among the offspring

of the debauched mother, whatever the father may be, and in those rare cases it is generally found that such children were born before the mother had become degraded.

And how terrible in its deprivations is the curse entailed by the alcoholized father on such children as the mother's virtue has partially saved, not only the hospitals—with their bedridden little forms, painfully wistful, and often lovely little faces—but the streets, with their misshapen malformed and half-limbed, wan-faced, and prematurely old children, bear witness.

Oh, fathers and mothers in pleasant homes, where want and its temptation have never come, whose little ones are rosy with health and innocent sheltered happiness, whose fair white forms, clear radiant eyes, soft eager voices, and kisses dew-pure, fill you with delight and reverence, and make you understand at last why He should say, "Of such is the kingdom of Heaven!" Oh, take heed, take heed for those other wronged and defrauded little ones who are worse than motherless, fatherless, and homeless, and for their sakes, and that such as they may no more be called out of the darkness into yet darker life —for these surely good and loving reasons put away and be first in putting away for ever from your lips, and your homes, and your example—this one indulgence, not missed from amongst your luxuries, that by your easy and self-benefiting sacrifice you may enter into such fellowship with the humblest as will rebuke, inspire, and sustain them. For what we have done unto the least of these, that alone shall we be able to take with us to speak for us when we have left all the possessions and all the distinctions of this world behind.

The gradual weakening and final destruction of character.

§ 51. Though there are grades and varieties of alcoholic degradation, and all do not sink equally low or manifest like degrees and kinds of lusts, ferocities, or bestial indifference, yet the dark picture given is the true one of the general effect of alcoholism on the moral being of man. And if we closely study the details which make this dark whole, we shall see more and more of the subtle and intricate ways by which the loss of will unravels the character stitch by stitch, till it has neither form nor significance, and is but a limp thread trailed hither and thither by the fitful winds of temptation.

For though alcoholism always undermines the will, the degree in which it does so is determined by the mental quality and temperament of the drinker, and the extent to which he carries the habit. So that in some instances moderate drinking has totally undermined the will, while in others, excessive drinking has only partially overcome this power. In all cases, however, the will is so far sapped that every relation in life is more or less tainted with the dry-rot of unreliability.

The clever disguises assumed by the alcoholized will.

The loss of will by alcoholism has many deceiving forms, often takes on the shape of good-natured concession, as in the politician who, even while believing in the true principle, and wishing well to the right measure in the issue at stake, succumbs to the first sufficient urgency, without regard to his own convictions, is called obliging, and thinks himself so, but in reality yielded because resistance was not in him. This is a negative action of will-lessness, very multiform in its phases, very widespread and vitiating in its effects on social and political life.

In political life.

But there is another kind in which all will but self-will is gone. The politician in this case is morally *nil;* he does not even passively lean toward integrity, he cares only to gain some higher position, some more sounding honour, some larger pay, and sells his vote and buys as many of the votes of others as he can for the gaining of his end, promising anything and everything without the faintest intention of carrying it out. He is spoken of as a man of iron will, sure to make his way, to carry his point, and he thinks himself a man of strong will. He is only an egoist, morally unable to resist, or even to hesitate at, any evil whereby his selfish aim is assured.

In the relations between master and man.

Alcoholism comes in to spoil the relations between the master and the working man.

The drinking working man, no matter how skilled and clever in his workmanship when sober, cannot claim the full wages of his skill, because he cannot be relied on, and his master is always on the look-out for a sober and steady skilled artisan, with whom to oust and replace the drinker. The latter may work well for many days, but suddenly one morning he comes into the shop, and in three minutes has blundered away material worth a week's wages, or by his derangement of the machinery some luckless comrade is

cut in pieces, or, if furious instead of maudlin, he has in a few minutes smashed more than he can make good in weeks or months of labour. And yet, again, is missing for days when work is pressing and hands cannot be spared.

The master who drinks, even though he be what is called a moderate drinker, is thereby a tacit patron of all this unreliability, and in himself illustrates it, often failing to carry out special promises to his men, thinking he will, but lacking will-power to do more than think and promise, and his unreliability further vitiates the relations between master and man. In every condition in life alcoholism, whether slowly or swiftly, surely destroys all certainty but the certainty of disaster and downfall, for the individual, for governments, for the race.

And in general life.

The tragedies and crimes to which alcoholism leads are as various as the moral unreliabilities which are the first steps towards crimes.

Alcoholism's gradations from moral unreliabilities to turpitude and crimes.

Crimes are not committed only or most frequently during actual drunkenness, but as the results of a long course of the drinking habit which has sapped the will, ossified the heart, paralyzed the conscience.

The forger must be sober, but to be capable of forgery he must—perhaps not in all, but in most cases—have been morally emasculated by drink, or have inherited the absence of moral perception and moral force which alcoholism brought about in his progenitors.

The forger.

The burglar must be wary and cool, but alcohol and its effects must have gone before, either in him or his fathers, ere he can choose this sort of livelihood.

The burglar.

The murderer lying in wait for his victim is cool—but somewhere in him or his fathers the demon of drink has persuaded him that gold is worth blood purchase.

The murderer.

On the other hand, these same crimes and various others also are committed not in coolness nor in ferocity, even when deliberated, but from inability to resist the pressure of circumstances made up of goading needs, stimulated and supplemented by sudden or gradually augmenting temptations. In these two distinct orders of criminals, guilty of precisely the same crimes, we see the action of the loss of moral will in its two forms: the negative loss, which may exist with painful longings to be better without power to even determine to try; and the

The negative loss of will.

The positive loss of will.

positive loss, which means absence of the moral will, *i.e.* of desire to be good and true, as in avarice, cold-blooded murder, and savage lust. Prof. Krafft-Ebing says that the drinker loses clear sense of what is honourable, moral, and decent, grows indifferent even to such conflict between good and evil within him as remains possible; indifferent to the ruin of his family, to the contempt of his fellow-citizens; and that hand in hand with these results goes that of increasing irritability, until his violent temper bursts out without provocation and becomes literally ungovernable.

In associating the evils of intemperance with the evils of poverty, we are apt to think of them as identical, and the poverty as almost the worst of the two.

Rev. Channing on the difference between poverty with and without drink.

Rev. William Ellery Channing, in his address on *Temperance*, in Boston (1837), thus ably discriminated on these points:—

"Intemperance is to be pitied and abhorred for its own sake, much more than for its outward consequences. These consequences owe their chief bitterness to their criminal source. We speak of the miseries which the drunkard carries into his family. But take away his own brutality, and how lightened would be these miseries. We talk of his wife and children in rags. Let the rags continue; but suppose them to be the effects of an innocent cause. Suppose the drunkard to have been a virtuous husband and an affectionate father, and that sickness and not vice has brought his family thus low. Suppose his wife and children, bound to him by a strong love, which a life of labour for their support and of unwearied kindness has awakened; and suppose them to know that his toil for their welfare has broken down his frame; suppose him able to say, 'We are poor in this world's goods, but rich in affection and religious trust. I am going from you, but I leave you to the Father of the fatherless and to the widow's God.' Suppose this, and how changed these rags! How changed the cold naked room! The heart's warmth can do much to withstand the winter's cold, and there is hope, there is honour, in this virtuous indigence. What breaks the heart of the drunkard's wife is not that he is poor, but that he is a drunkard.

"We look too much at the consequences of vice, too

little at the vice itself. It is to be desired that when man lifts a suicidal arm against his highest life, when he quenches reason and conscience, that he and all others should receive a solemn startling warning of the greatness of his guilt; that terrible outward calamities should bear witness to the inward ruin which he is working; for the outward evils, dreadful as they seem, are but faint types of the ruin within. We should see in them God's respect to His own image in the soul, His parental warnings against the crime of quenching the intellectual and moral life."

The foundation of human happiness, worth, and progress.

In the sacredness of family life—as the foundation and perpetual well-spring of human worth, happiness, and progress; in the incorruptible faithfulness of men and women, not to their pleasures and impulses, not even to their individual aspirations, but to their plain daily duties and responsibilities towards others,—whether these duties have been voluntarily assumed or by circumstances forced upon them—in these things in this conduct of life—though personal hopes may be lost—manhood and womanhood infinitely more precious than any personal gain, remain pure and effective; and childhood—the most direct and solemn of all the trusts a gracious God reposes in us—is protected.

It is only when the passion of love is separated—wrenched from its citadel and source in the crystal sphere of modesty, and true, deep affection where divine wisdom planted it, to live for ever and be the for ever fresh and for ever sweet inspiration to all human loyalties; it is only when selfishness and insidious self-betrayal outrages and dislodges it, that it is lost out of God's meaning and purpose, and becomes the sensual fury which goads men and women to break all ties, all fidelities; to forget what honour is like, and grovel weakly in, or ferociously gloat over, the degradation of all that is meant by the good words "love" and "home."

Drink the deadly enemy of these.

And it is here in the home-world, the heart-world, that drink, having subjugated the will, confused and gradually obliterated moral distinctions, comes at last to its chief prey, the affections, the emotions, the passions, and does the most deadly, the most ruinous—because the most irreparable—of all its fell work. In its blight the man who wooed with fervour and wedded with pure intent, parts first, slowly,

with self-respect, and then more rapidly with all other respect, and sells or forsakes his wife, as callous to her anguish—yes, actually becomes as incapable of understanding it as of caring for it—as he is indifferent to the coarseness of the vile women he consorts with in her stead; or worse, he makes his wife a physical sharer in his own pollutions, regardless of the result to her or to the children who may inherit. Brothers traffic in the honour of their sisters; some men gamble literally with their wives for the stakes, or pledge their daughters for cash to the lowest libertine that can pay—yes, and act as the decoy in fulfilling the atrocious pledge! * Finally, as the circle narrows, as the lusts exhaust themselves, the alcohol-driven wretch slinks more and more into the lowest haunts, where unimaginable forms of sensuality submerge him at last in imbecility, whose fainter and fainter gleams of consciousness consist but of impotent throes of the degraded senses. Then total darkness, and the results of the work of alcoholism are complete.

Of course, in dealing with a great, widely prevailing evil, only the general sum of its effects can be presented in any one work of ordinary dimensions; and it is understood that this sum comprises almost infinite variations of kind, of method, of degrees, of effect that can not be categorically specified.

For example, in showing that drink destroys will, moral perception, conscience, affection, self-respect, and regard for others—in saying, in a word, that the drinker sinks lower and lower until the final extinction of all manliness, I am not asserting that every taster of wine sinks to the lowest level, or that any one or all of these evil results are at once and strongly manifested in every drinker. If this were so, surely no books need be written, no pledges taken, no prayers be made, no tears be shed to save man from alcoholism. That which is asserted is, that drink *tends*, however slowly and insidiously, and

* Cardinal M'Cabe, in a recent pastoral on the state of Ireland, speaks of the degraded men and women "who, that their fierce passion for drink may be satisfied, would sell wife, husband, or child to any one who would minister but for a day to their insatiable cravings for drink."

with whatever delay of apparent signs, in every case to these results; if persisted in, manifests them in more or less marked degrees; that the *danger* of *the worst* squarely menaces whoever forms the habit, and that in a frightful numerical proportion this worst has been and is being daily realized all around us.

"At what particular point does any man cease to be sober and begin to be drunk? What quantity or strength of alcohol may one imbibe with the perfect assurance of retaining the sober equilibrium of all his faculties? How long may one be accustomed to a very moderate daily quantity of wine or spirits without incurring any danger of forming an appetite for strong drink? These and other such questions cannot be answered, because there is no line discernible, and no ingenuity can calculate where or when the line is crossed which separates moderation from excess, sobriety from drunkenness.

"There is a point indefinitely near the starting-point of unmistakable sobriety, and yet some distance from it, where a slight derangement of the mental powers, a little dimness of intellectual vision, some lack of tenderness in conscience, some relaxing of the power of will—all imperceptible, it may be, to others—become at least suspected by the individual himself . . . but while it would be uncharitable and rude in the estimation of society, and libellous in the eye of the law, to call this by the name of drunkenness; yet, call it by what name we will, it *is* a departure from strict absolute sobriety, and an incipient movement along the line which *leads* to the grossest intemperance. The higher nature has begun to lose, and the lower to gain influence and strength; it needs but a little more impetus in the same direction, it needs but the same process repeated sufficiently often to create the drunkard's appetite, and to procure the drunkard's name. A start has already been made along that line which is so thickly strewn with the wreck of much that was great and noble lying in accumulated masses of degradation, wretchedness, and crime." *

I have avoided exaggeration; I have kept well within

* *Temperance Reformation, and its Claims upon the Christian Church*, by Rev. James Smith (London, 1875).

the bounds of the facts which my researches have unexpectedly revealed to me. I have purposely refrained from citing from the multitudes of proved and certified instances of the worst evils as I have described them, lest by too greatly shocking and even stunning the sensibilities of my readers I should thwart my hope of helping to arouse a deep feeling and genuine sustained effort to comprehend and overcome this, the worst, the most secret, stealthy, cruel, and powerful enemy that has ever got into the hearts, the homes of men.

CHAPTER VIII.

HEREDITY, OR THE CURSE ENTAILED ON DESCENDANTS BY ALCOHOL.

A law of ancient Carthage forbade all drinks but water on days of marital intercourse.

"Drunkards beget drunkards."—PLUTARCH.

"The children of drunkards are not likely to have sound brains."—GELLIUS.

"Dipsomania is always hereditary, always a spontaneous neurosis, absolutely independent of the habits of the individual."—Dr. FOLLEVILLE.—See *Quarterly Journal of Inebriety* (October, 1883), p. 260.

§ 52. THE perpetuation of the human race, together with the extinction of what is valueless to it—whether individual, family, tribe, or nation—are closely regulated by laws which in themselves manifest the profoundest wisdom.

The laws of generation a protection to the race.

On the laws of heredity especially, a seal is set which no man can completely violate; *i.e.* though he may infringe and disregard all other general laws of his being, until to all intents and purposes they cease to be carried out, the laws by which he bequeaths himself to new generations will continue to assert themselves even after he has lost the mental and physical individuality through which the general laws act.

The responsibility of parentage.

Were we insulated in our individualities instead of being intimately interdependent, we might do harm to ourselves and deny all right of interference or even remonstrance from without: but since in nothing can we act without producing an endless consecution of effects touching the lives and rights of others;—in nothing can

we have so little right to act without the most thoughtful and unselfish regard to the claims of others, as in the chief act for which we are qualified—the act of creating a new being who shall partake of our essence in himself and transmit the same, whatever its quality, to untold successive generations.

For we are pre-eminently parents; the race lives only in the possible motherhood or fatherhood of each individual, and the desire for children and devoted attachment to them is the most ineradicable feeling and the deepest fundamental law of all healthy mature beings.

Therefore, the laws of heredity in all their bearings constitute *the foremost study which concerns us as responsible beings.*

Dr. Marc Lorin on the general laws of heredity.

Dr. Marc Lorin, in his *General View of the Laws of Heredity* (Thesis for the degree in medicine, Paris, 1875), says—

"The transmission of characteristics of species and race is admitted by everybody who deals with the body or the soul. Nobody fears to admit within these limits the fatality of birth. It is thus that every historian refers to the national character in explaining the events in the lives of a people, recognizing its persistence, and pronouncing the consequences often inevitable. The French of this day recognize themselves in the portrait of the Gauls as drawn by Julius Cæsar. The modern Greeks are in many respects the same as those whom Demosthenes addressed. If you take a young savage whose parents were hunters, vain will be your efforts to cultivate him and adapt him to the habits of civilized life. The voice of his ancestor speaks to him, incessantly recalling him to the instinct and adventures of forest life.

"Heredity is the result of a very general law, by virtue of which all the anatomical elements of the body possess the property of giving direct birth to similar elements, or of determining in their own vicinity a generation of elements of the same kind (Littré et Robin). The phenomena of nutrition depend upon this same law, by virtue of which the human body, incessantly renewed, remains always identical with itself from the redistribution of atomic elements."

Dr. Bourgeois on heredity.

Dr. Bourgeois, in *Love* (1860), says that—

"In transmitting the germ of life, parents transmit to their children their own resemblance, physical and moral. The children are parts of ourselves; it is our flesh, our blood, our souls, our examples, our lessons, our passions which re-live in them."

Dr. E. G. Figg, in his *Physiological Operation of Alcohol* (Manchester, 1862), says— Dr. Figg.

"Is organic conformation transmissible to posterity? In our bitter experience we know it is. Half a dozen brothers and sisters perish in phthisis, and the physician explores the antecedents of the family for the origin of the catastrophe. A man drops dead with valvular disease of the heart, and on the transit of a few years the accident is repeated in the person of his son, simply because the basis of the disease was communicated in an organ defectively constructed.

"And is a *cerebral conformation* less *hereditary* than tubercular diathesis, or cardiac imperfection? The very breeders of horses insure docility in the progeny, by the existence of that quality in the parentage. Consider the mental vigour manifested in various families, generation after generation. The Gregories, the Alisons, the Sheridans, the Kembles, the Porters, the Munros; if talent be inherited, it can only be conveyed with the peculiar cerebral structure exhibiting it."

The scope of hereditary effects.

Although the ephemeral traits of the parents may seldom reappear in the children—only that which has become individualized being generally transmitted—yet we constantly have evidence that even general undefinable tendencies of our being, upward or downward, are transmissible; yes, even the struggles and conflicts in the inmost hearts of the parents, though never by them revealed, may all, whether well or ill fought out, be reflected in the child. And it is within the working of these laws that we find intoxicants, especially alcohol, endangering—as does almost no other evil—the whole future of the whole race of man; and to the startling words of Flourens, "*Man no longer dies, he kills himself*," we may add,—Man not only kills himself; he kills his offspring in the womb, and degrades that heaven-ordained crucible of life into a machine for creating mental, moral, and physical monstrosities—for the spurious replenishment of the earth.

Various authorities on heredity.

§ 53. The French historian Amyot, and the English philosopher Lord Bacon, were probably the first in modern times to deal with the question of alcoholic heredity.

Erasmus Darwin.

Erasmus Darwin, in his *Botanical Garden* (1781), says, "It is remarkable that all the diseases from drinking spirituous or fermented liquors are liable to become hereditary, even to the third generation, gradually increasing, if the cause be continued, till the family becomes extinct."

Rev. Edward Barry.

In his *Essay on Wedlock* (Reading, 1806) the Rev. Edward Barry says—

"It would be as unreasonable to expect a rich crop from a barren soil, as that strong and healthy children should be born of parents whose constitutions have been worn out with intemperance and disease. What a dreadful inheritance is the gout, the scurvy, etc.! How happy had it been for the heir of many a great estate had he been born a healthy beggar rather than to inherit his father's fortunes at the expense of inheriting his disease!

"Children born of intemperate parents bear in their birth the germs of disease, die prematurely, or drag along a languishing existence, useless to society, depraved and possessed with evil instincts."

Dr. Rösch.

A like testimony is this of Dr. C. Rösch, in his *The Abuse of Spirituous Drinks* (Tübingen, 1839):

"The children of men and women who are given to drink have always a weak constitution, are either delicate and nervous to excess, or heavy and stupid. In the former case they often fall victims to convulsions and die suddenly, or become a prey to water on the brain, and later to pulmonary phthisis. In the latter case they are seized by atrophy, and sink into imbecility. In both cases they are exposed to all the varied forms of scrofula, rash, and, on reaching maturity, gout."

Dr. Morel.

Dr. B. A. Morel, in his treatise on the *Degeneration of the Human Race* (Paris, 1857), says of alcoholic heredity, "There is no other disease in which hereditary influences are so fatally characteristic. Imbecility and idiocy are the extreme terms of the degradation in the descendants of drinkers, but a great number of intermediary stages develop themselves, . . . beyond the positive data afforded by observation of hereditary influences, it is impossible for

us to form a just idea of certain monstrosities, physical and moral. . . . It is a law for the preservation of the race, which strikes alcoholics with early impotence, and their descendants are not only intellectually feeble, but this degradation is joined with congenital impotence."

Dr. Figg. Dr. Figg says (*op. cit.*), "*The brain of the drinker's child is as often the miniature of that of his father, as is the impress of his features.* Education may do much for him, conscience and self-respect more; yet the germs of those vices which precipitated the parent's ruin will, in too many instances, defy eradication.

"Perhaps the largest class of character is one to which no special reference has hitherto been made—a person possessing a mediocrity of mental power, with a mind only partially developed by education, conversing superficially on a number of subjects, without thinking deeply on any; such characters are admirably adapted for the routine of mere commercial or artisan life. By constant drinking, however, even without reaching the point of intoxication, such intellects may be almost obliterated. To them reasoning was never habitual, consequently the cerebral surface, under the contact of alcohol, is less injected than the base; hence the function of the intellectual brain is completely superseded by that of the instinctive; their very few ideas, suggested by the society of the public-house, or the sentiments current round the dinner tables on the retiring of the ladies, admit of no variation or argument. What wonder that they become social non-entities, and assimilated to the beasts in their desire for the gratification of mere animal appetites!"

Dr. Lanceraux. Dr. E. Lanceraux says, in his article *Alcoholism* (*Dict. Encycl. des Sciences Méd.*, Paris, 1865), "The person who inherits alcoholism is generally marked with degeneration particularly manifested in disturbances of the nervous functions. As an infant he dies of convulsions or other nervous disorders; if he lives, he becomes idiotic or imbecile, and in adult life bears these special characteristics: the head is small (tendency to microcephalism), his physiognomy vacant, a nervous susceptibility more or less accentuated, a state of nervousness bordering on hysteria, convulsions, epilepsy, sad ideas, melancholia, hypochondria, —such are the effects, and these with a passion for alcoholic

beverages, an inclination to immorality, depravity, and cynicism, are the sorrowful inheritance, which, unfortunately a great number of individuals given to drink bequeath to their children."

Dr. Maudsley.

Dr. Maudsley says that such children "come into the world without having either the will or the strength to struggle against their fate; they are step-children of nature, suffering under the heel of tyranny—the tyranny of poor constitutions."

Professor Jaccoud.

Prof. Sigismund Jaccoud says, in his *Alcoholism* (*Pathologie Interne*, Paris, 1877), "Of the children of drinkers, some become imbeciles and idiots; others are feeble in mind, exhibit moral perversion, and sink by degrees into complete degradation; still others are epileptics, deaf and dumb, scrofulous, hydrocephalic, etc. . . . A survey of the race leads us to affirm that alcoholism is one of the greatest causes of the depopulation and degeneration of nations."

Dr. Baer.

Dr. A. Baer (in *Alcoholismus*, 1878) calls attention to the fact that "the inherited desire for drink often remains latent, till by severe, acute, or chronic disease, or mental excitement, the nervous system has become weakened, when the alcoholic impulse leaps suddenly into activity."*

Dr. Gendron.

In his essay on *Hereditary Alcoholism* (Thesis for the degree in medicine, Paris, 1880), Dr. E. Gendron says, "The drinker is often incapable of having living children. If he does have any, they are driven to drinking just as he himself, and, being less robust, because degenerated, they cannot withstand the effects, but fall victims to all the accidents of alcoholism, united to those they have inherited. These are—in tender years, terrible convulsions on the least occasion; later, nervousness of hysteria with all the train of symptoms; limited intelligence, gross brutal character, and a spirit incapable of anything serious or coherent. The heir to alcoholism is querulous, evil-minded, possessed with a desire to destroy, not capable of receiving a good education; and his faults increase with

* The age at which symptoms of hereditary alcoholism break out varies. It generally awakes at special periods of physiological changes; such as puberty, illness, pregnancy, or at the cessation of the menstrual functions. Sudden and great mental emotion, or even chill, will sometimes suffice.

is years. If born intelligent, he may lapse into idiocy or mbecility; born with infantile paralysis, he may die from pilepsy; or, a hypochondriac, he may become insane, and nd his wretched existence in an asylum under the delirium of imaginary persecutions; if, indeed, he has not been carried to the prisoner's dock for some crime for which he bore little real responsibility.* . . The conclusions are that alcoholism is not extinguished with the drinking individual, but is transmitted to his descendants under various forms, namely, convulsions in infancy, produced by the most trivial causes; malformation of the head and microcephalus; tendency to strong drink; feeble general development; trembling especially of the upper limbs; gastric troubles; epilepsy; precocious perversity and cruelty; mental weakness; idiocy; tendency to insanity or mania."

Dr. Norman Kerr.

In his address, *The Heredity of Alcohol*, delivered before the International Congress for the Study of Alcoholism at Brussels (August, 1880), Dr. Norman Kerr said, "Defective nerve-power and an enfeebled debilitated *morale* form the favourite legacy of inebriates to their offspring. Some of the circle, generally the daughters, may be nervous and hysterical; others, generally the sons, are apt to be feeble and eccentric, and to fall into insanity when an unusual emergency takes place. That the impairment of the bodily or mental faculties arises from the intemperance of one or both heads of the family, is demonstrated by the healthfulness and intellectual vigour of children born while the parents were temperate contrasted with the sickliness and mental feebleness of their brothers and sisters born after the parent or parents became intemperate. . . . The most distressing aspect of the heredity of alcohol is the transmitted narcotic or insatiable craving for drink—the dipsomania of the physician—which is every day becoming more and more prevalent. Probably the alarming increase of the alcoholic heredity in England is owing in great part to the increase of female intemperance amongst us. *It is well to*

* If a sound knowledge of the laws of heredity were a *sine qua non* qualification in the law-maker, might we not hope that curative measures would supersede the punitive and inaugurate a nobler and more effective moral code than we have ever known?

state that all the evil resulting from hereditary alcoholism may be transmitted by parents who have never been noted for their drunkenness. Long-continued habitual indulgence in intoxicating drinks to *an extent far short of intoxication* is not only *sufficient* to *originate and hand down a morbid tendency*, but is *much more likely to do so than even repeated drunken outbreaks with intervals of perfect sobriety between.*"

Dr. Lewis D. Mason on alcoholic insanity.

The hereditary drink-crave is thus described by Dr. Lewis D. Mason in his *Alcoholic Insanity* (New York, 1883): "It is an irresistible impulse that drives a person to alcoholic intoxication at stated or irregular periods. The attack is preceded by a condition of melancholia, anorexia, insomnia, and general restlessness. After the debauch, or during it, the special effect of the alcohol on the mental and physical condition becomes manifest—tremor, hallucinations, sleeplessness, coated tongue, loss of appetite, and other symptoms of gastric derangement. The 'irresistible impulse' is the characteristic feature of this special form of monomania. The genesis of that impulse, and the views of various writers as to its pathological origin, the province of this paper will not permit to touch.

"The point to be made here is that the hallucinations and delusions are simply the result of the alcoholic poisoning.

"The person again and again yields to the insane impulse until death, either by some intercurrent disease, or disease resulting from his alcoholic excesses, relieves him from his sad heritage."

Prof. Krafft-Ebing on diseases of alcoholic heredity.

Of the children of parents who are guilty of alcoholic excesses,* Prof. Krafft-Ebing, in his *Psychiatrie* (Stuttgart, 1883), says, "They come into the world as idiots,

* One of the laws of heredity of the utmost importance for parents to consider is that of what I may call lacteal heredity (see chapter IX.), *i.e.*, what the child receives through the medium of the milk, whether the milk of its mother or of a wet nurse. Virtues, vices, physical characteristics, and the effects of habits indulged in during lactation can be transmitted to the child. Thus, even if the child be well-born to start with, it may acquire physical diseases through the milk of a foster-mother.

The *Pall Mall Gazette* for August, 1883, tells the following interesting anecdote bearing on this point:—

"The extent to which the character of an animal can be changed

with hydrocephalous or neurotic-convulsive constitutions; and perish in early years of convulsions. In those who survive, epilepsy, hysteria, mental diseases, and weakness, and exactly the severest forms of mental impairment are developed out of the morbid constitution of the nerve-centres;" and he gives the following terrible scheme to show how nature disposes of generations springing from drunkards:—

"1st Generation.—Moral depravity, alcoholic excess.

"2nd Generation.—Drink mania, attacks of insanity, general paralysis.

"3rd Generation.—Hypochondria, melancholia, apathy, and tendencies to murder.

"4th Generation.—Imbecility, idiocy, and extinction of family."

Thus it is seen that even the transmission of such loathsome diseases as scrofula, tuberculosis, or syphilis is neither so certain nor so permanent and blasting in effects as those transmitted by alcoholism. Moreover, these terrible diseases are in some degree susceptible of remedy, and are localized. But the heredity from alcoholism is chronic, and profoundly attacks the whole being.

Were the transmission absolute, that is, were there no

by the way in which it is brought up has seldom been more remarkably illustrated than in the case of a sheep, which at present is said by the *Kokstaad Advertizer* to be a great pet of the magistrate at Matabiele, in South Africa. This sheep, when a lamb, left the flock, attached itself to a Mr. Watson, who gave it to be suckled by his bitch 'Beauty,' a bitch well known here, and was well taken care of by her. When the lamb grew older it was noticed that it would never sleep in any house but Mr. Watson's, and would sometimes lie outside the door cuddled up like a watch-dog. The most wonderful thing about him is that as soon as the hotel bell rings for dinner he is sure to be standing by one of the chairs at the top end of the table, and when the owner sits down he will jump with his front paws on his back, letting him know that he wants something to eat, like a dog. He will not touch grass or eat beef, but will gladly eat mutton, soap, candles, and drink coffee and tea with sugar and milk. But 'Schaap's' great love is for draught beer. He will lift the can up with his front paws and hold it to his mouth, and drink with such a relish that it can at once be seen he has been led away by bad example. 'Schaap' is a fine ram, clean fleece, with very wicked eyes. All day he is seen running about with the dogs as one of them, until the bell rings, then off he scampers to the dining-room."

laws mightier for the preservation of man than those he violates and turns into engines of destruction, the race might ere this have been extinguished. But the children of drinking parents who escape the curse are the exceptions, and the escape is seldom, if ever, a complete one. Either the mind, the body, or the character, in some bent, formation, or trait, betrays the taint.

Selfish and irresponsible conduct of life minus drink may, and probably sometimes does, produce a similar heredity; yet it remains true that those who are neither alcoholics themselves, nor the victims of alcoholic parentage, are in the comparison seldom so blinded to the meaning and duties of life, as to waste their physical, moral, and mental resources, and then either heedlessly or deliberately inflict the consequences on their offspring.

CHAPTER IX.

THERAPEUTICS; OR, ALCOHOL AS A MEDICINE.

§ 54. As alcohol (the distilled product) originated in the chemists' and physicians' laboratories, thence gradually spread to the homes of the favoured ones, and then descended step by step the grades of social life, until its use in drink by civilized man has driven pure water almost out of the list of beverages; so now there are signs that it is retreating to the laboratory, like the Afreet to his bottle in the *Arabian Nights*. And let us hope that when alcohol is once driven back to its starting-place, man will be wise enough to seal up the monster for ever.

The first medical treatise on the uses of alcohol was one entitled *Ueber den Gebrauch und Nutzen des Branntweins* (Concerning the Use and Utility of Brandy), written by Dr. Michel Schrick, in 1483.

A sixteenth-century opinion of alcohol. "Theoricus."

During the next hundred years after this date much and various consideration was given to the subject, and more or less clear opinions were formed as to the effect of alcohol on man; and by examining some of the views entertained by "Theoricus," a prominent German of the sixteenth century—*i.e.*, about midway between the time of its practical discovery and our age, and when it had spread over the whole of Europe—we may be better able to appreciate the changes which medical opinion has undergone between then and now.

In the *Holinshed Chronicles* (1577), "Theoricus" describes the properties of alcohol in these words:—"It sloweth age, it strengtheneth youth, it helpeth digestion, it cutteth phlegme, it abandoneth melancholie, it relisheth the heart, it lighteneth the mind, it quickeneth the spirits,

it cureth the hydropsia, it healeth the strangurie, it pounces the stone, it expelleth gravel, it puffeth away ventositie ; it keepeth and preserveth the head from whirling, the eyes from dazzling, the tong from lisping, the mouth from snaffling, the teeth from chattering, and the throat from rattling; it keepeth the weasen from stiffling, the stomach from wambling, and the heart from swelling; it keepeth the hands from shivering, the sinews from shrinking, the veins from crumbling, the bones from aching, and the marrow from soaking."

As we have seen, these diseases, with scores of kindred afflictions, are precisely the fruits which the use of alcohol bears in the organism of man, and it would seem as if "Theoricus" must have been both a wag and a physician.

The following are some of the principal testimonies and opinions, marking the progress of medical thought against the indiscriminate use of alcohol in modern times.

Dr. Norman Kerr on medical history of the temperance movement.

§ 55. At the Temperance Jubilee Conference in the Crystal Palace (September, 1879), an essay on the *Medical History of the Temperance Movement* was read by Dr. Norman Kerr. "At no stage in the onward progress of the temperance movement," said Dr. Kerr, "have representatives of the medical profession ever been wanting. In the early or moderation stage, when the advocacy of temperance reformers was confined to abstinence from ardent spirits, a numerous company of Æsculapians was invariably in the van.

"Leaving out of the reckoning altogether the many unstinted commendations of temperance by the early fathers of the healing art, while united temperance effort was yet in the womb of time, from the ranks of the noble profession of medicine emanated graphic expositions of the physical, mental, and moral dangers accompanying even limited alcoholic indulgence.

"In 1725 Dr. George Cheyne* had issued a second edition of his first work, in which he commends total

* "Neither were they ever designed by Nature and its Author for the animal body as nourishment or common drink, and scarce deserve a place in the apothecary's shop; spirits having made more havock among mankind by far than even gunpowder."—*Natural Method of curing Diseases of the Body and Disorders of the Mind*, by Dr. George Cheyne (London, 1742).

abstinence as the most natural, healthy, and safe mode of living, and condemns moderate drinking as unhealthy and dangerous.

"In 1747 Dr. James wrote, 'Every person who drinks a dram seems to me guilty of a greater indiscretion than if he had set fire to a house; and for the same reasons cordial waters are the most dangerous furniture for a closet.' Again, 'I cannot forbear admiring the great wisdom of Mohammed, who strictly forbade his followers the use of fermented liquors for better reasons than are generally apprehended.'

"Dr. Erasmus Darwin, author of *The Botanic Garden* (London, 1794), calls wine 'a pernicious luxury in common use, and injuring thousands.'

"In 1802 Beddoes pointed out the many dangers attendant on the social and medical use of intoxicating drinks, dwelling on the 'mischief from wine taken constantly in moderate quantity,' and emphasizing 'The enfeebling power of small portions of wine, regularly drunk.'

"Dr. Trotter, two years later, denounces beer as a 'poisonous morning beverage,' says 'wines strengthen neither body nor mind;' and thus writes, 'When wine was first introduced into Great Britain in the thirteenth century, it was confined to the shop of the apothecary.'

"Writing to Dr. Joshua Harvey, in 1829, Dr. John Cheyne, Physician-General to the Forces in Ireland, in a letter published in Dublin, contends that the medical profession 'ought to make every retribution in their power for having so long upheld one of the most fatal delusions which ever took possession of the human mind.'

"Mr. Higginbottom was probably an abstainer many years before the birth of the movement, and had abandoned the prescription of alcohol as early as 1832."

Mr. Higginbottom on the advan-

In a letter to a friend, written in 1836, Mr. Higginbottom * says, "*I consider I shall do more in curing disease*

* John Higginbottom, F.R.S., of Nottingham, was a keen and able clinical practitioner, who wrote several classical papers on practical medicine. His far-seeing and courageous stand against the medical prescription of alcohol branded him as a maniac, and ostracized him from practice among the higher classes of society. Another man of like conscience and courage was Mr. James Hawkins,

tages of prescribing total abstinence.

and preventing disease in one year by prescribing total abstinence, than I could do in the ordinary course of an extensive practice of a hundred years. I have already seen diseases cured by total abstinence that would not have been cured by any other means. If *all* stimulating drinks and tobacco were banished from the earth, it would be a real blessing to society, and in a few weeks they would never be *missed, not even as a medicine.*" *

Dr. Kerr in continuation.

Dr. Kerr continues, in his Crystal Palace essay, "The three well-known Declarations concerning alcohol merit special mention. The first was drawn by Dr. Julius Jeffreys in 1839, and was signed by Sir B. Brodie, Sir James Clarke, Sir J. Eyre, Dr. Marshall Hall, Dr. A. T. Thompson, Dr. A. Ure, the Queen's physicians; Professor Partridge, Professor Quain, Mr. Travers, Mr. Bransby Cooper, and seventy-eight leaders in medicine and surgery. This document declared the opinion to be erroneous that wine, beer, or spirit was beneficial to health; that man in ordinary health required no such stimulant, and could not be benefited by the habitual employment of such in either large or small quantities; that, even in the most moderate doses, alcoholic drinks did no good, while large quantities (such as by many would be thought moderate) sooner or later proved injurious to the human constitution, without any exceptions."

First medical Declaration of 1839, drawn up by Dr. Julius Jeffreys.

The Declaration drawn up by Dr. Julius Jeffreys,† here alluded to, contained the following paragraphs:—

"An opinion handed down from rude and ignorant times, and imbibed by Englishmen from their youth, has become very general, that the habitual use of some portion of alcoholic drink—as of wine, beer, or spirit—is beneficial to health, and even necessary for those subjected to habitual labour.

of 36, Cold Place, Commercial Road, formerly a staff assistant surgeon at the battle of Waterloo. Like Mr. Higginbottom, he was an earnest and consistent abstainer, and at the same cost to his practice. Some valuable papers were contributed by him to the *Temperance Intelligencer* for 1840; and he had the firmness and sincerity to describe himself in the Medical Directory as "Teetotal since 1837."

* From *Anti-Bacchus*, by the Rev. B. Parsons (London, 1839). The italics are by the Rev. Mr. Parsons.

† See Dr. Grindrod's *Bacchus* (1839).

"Anatomy, physiology, and the experience of all ages and countries, when properly examined, must satisfy every mind well informed in medical science that the above opinion is altogether erroneous. Man in ordinary health, like other animals, requires not any such stimulants, and cannot be benefited by the habitual employment of any quantity of them, large or small; nor will their use during his lifetime increase the aggregate amount of his labour. In whatever quantity they are employed, they rather tend to diminish it.

"When he is in a state of temporary debility from illness, or other causes, a temporary use of them as of other stimulant medicines may be desirable; but as soon as he is raised to his natural standard of health, a continuance of their use can do no good to him, even in the most moderate quantities, while larger quantities (yet such as by many persons are thought moderate) do, sooner or later, prove injurious to the human constitution without any exceptions."*

Second medical Declaration by Mr. John Dunlop in 1847.

"The second Declaration," continues Dr. Kerr, "was originated, and the many signatures published, by Mr. John Dunlop in 1847. More than two thousand of the most eminent physicians and surgeons signed this, including Sir B. Brodie, Sir J. Clarke, Sir W. Burnett, Sir J. Forbes, Sir H. Holland, Sir A. Munro, Sir J. McGrigor, Sir R. Christison, Dr. W. B. Carpenter, Dr. Copland, Dr. Niel Arnott, Dr. A. Farre, Professors Guy, Allen Thomson, Miller, McLeod, Easton, Anderson, McFarlane, Rainey, Buchanan, Paris, Winslow, Alison, Syme, Henderson, Lawrie, McKenzie, R. D. Thomson, Couper, and Simpson. This certificate set forth that perfect health is compatible with total abstinence from all intoxicating beverages; that all such drinks can, with perfect safety, be discontinued either suddenly or gradually; and that total and universal abstinence from alcoholic liquors and intoxicating beverages of all sorts would greatly contribute to the health, the prosperity, the morality, and the happiness of the human race.

"The third Declaration, which was prepared by Pro- The third

* The Rev. B. Parsons (*op. cit.*) says, "To their honour it may be told that five thousand medical men in America have come forward and given their testimony against alcoholic drinks."

medical Declaration by Professor Parkes in 1871.

fessor Parkes, on the suggestion of Mr. Ernest Hart and Mr. Robert Rae, in 1871, was signed by 269 leading members of the hospital staffs. Among those signing were Sir George Burrows, Sir Thomas Watson, Sir H. Holland, Sir William Fergusson, Sir James Paget, Sir Ranald Martin, Sir Henry Thompson, Sir Duncan Gibb, and Sir James Bardsley."

Establishment of the *Quarterly Medical Temperance Journal*, 1869.

The modern scientific temperance movement of England may be said to have commenced in earnest with the publication of Dr. F. R. Lees' *Is Alcohol a Medicine?* (1866), and to have taken full shape with the establishment of the quarterly *Medical Temperance Journal* (1869), at the instance of Mr. Robert Rae, secretary of the National Temperance League. In this quarterly will be found fairly reproduced almost all the best medical literature of the subject that has appeared since 1869. The intelligent advocacy of true temperance in this journal called forth both rejoinders and support in the medical press of Great Britain and other countries, and finally the *British Medical Journal*, the powerful organ of eleven thousand British physicians, invited an investigation of the drink question. On the 30th of September, 1871, the *British Medical Journal* said—

The *British Medical Journal* concerning alcohol as a medicine (1871).

"Looking to the ineffable misery and disaster, the waste, degradation, suffering, and crime which are constantly wrought in this and most civilized nations by drink, we are far from thinking the importance of the subject can be exaggerated. . . . The influence of medical men, if they were united and agreed, might be all-powerful on this subject; and we should be glad to see a conference of medical men, including those of the highest class, originated in some really influential quarters, with a view to giving this subject a more thorough discussion than it has yet had. We should like to hear a discussion in which Parkes, Edward Smith, Hughes Bennett, A. P. Stewart, Paget, Jenner, and some of our leading provincial practitioners, would take part, in which the whole subject should be probed. To what extent, if at all, are physicians justified in recognizing alcohol as an article of daily food in health? Does the habit of prescribing alcoholic drinks act injuriously upon the morals and welfare of the people?

Is it possible or desirable to substitute the more enticing forms of alcohol by medicinally and less alluring forms? We all of us sympathize with the ends which the National Temperance League has in view. A small minority only practically participate in their means of action. Can we in any way, and in what way, help to excuse this nation from the curses which drink brings upon its population?"

This was occasioned by the strong appeal of Dr. A. H. H. McMurtry, of Belfast, in an article *On the Duty of Medical Men in Relation to the Temperance Movement* (*Medical Temperance Journal*, October, 1871).

Dr. McMurtry's eloquent appeal to the medical profession (*Medical Temperance Journal*, Oct. 1871).

"The ignorance of the people," says Dr. McMurtry, "encouraged as it has been by the attitude of the medical profession towards the temperance movement, with regard to the nature, properties, and real value of alcoholic drinks, has constituted hitherto an almost impregnable barrier to the progress of truth on this subject. . . . Medical practice, and medical teaching, and perhaps medical science on the subject altogether, have begotten and fostered the popular belief that alcohol is one of the good creatures of God. The medical profession is responsible for the originating and perpetuating of the great mistake that alcohol is a wholesome thing. . . . The people's medical advisers either teach, by precept and example, that they are *not* injurious, or manifest an indifference to the evils produced by their use, which implies that they do not think them injurious. It matters little whether it is what they teach or what they do not teach that is the cause of the popular belief and popular custom; for medical men are just as culpable if they do not dispel this error, as if they actually and directly taught it. They are just as responsible for its consequences, because it is their special province and privilege to diffuse that light and knowledge which alone could prevent them. For to whom can the temperance movement look, to whom should it look, for aid in exposing this pernicious falsehood but to the medical profession? To whom else should a community suffering from the physical consequences of a physical poison appeal, not only for their cure, but for their prevention? . . . Apart from the absolute duty of every man to abstain from the unnecessary use of a poison, it is pre-eminently the duty of medical men, who are naturally and justly considered

guides in all that pertains to the preservation of health, to see that the powerful influence of their example is on the side of virtue and sobriety. Their superior knowledge of the poisonous nature of alcohol implies a greater obligation to abstain from it; but it is their stronger and wider influence which, in an especial manner, lays them under a deeper responsibility to set the people a safe example in this matter, and incurs upon them a deeper guilt if their example leads the people astray. . . . Hence I maintain that it is the duty of medical men either (1) to discard alcohol altogether on the strength of the verdict which a large proportion of the profession—not to mention competent judges outside the profession—have pronounced against it; or else (2) to examine the matter for themselves with an earnest and sincere desire to know the truth, considering the incalculable evils which so many truthful, unprejudiced, and thoroughly qualified men attribute solely to the common and medicinal use of alcohol (such use being founded on false notions of the nature and real value of the drink), I hold that it is the bounden duty of all who are in any degree responsible for this use of it, to give the whole subject that honest and attentive consideration which its importance demands. This would be a more philosophic, honourable, and philanthropic course to pursue than that so often adopted by medical men, of refusing either to study the question for themselves or to be instructed by those who have studied it. I should have thought that, if no other or higher consideration were sufficient, the honour of their profession would be enough to arouse them to defend it from the serious charge of contributing, either knowingly or in wilful ignorance, to the miseries of the human race.

"But suppose that, after having given the subject the necessary investigation, they still believe that alcohol is an indispensable article of the 'Materia Medica,' what then? What if some medical men *have* actually done so, and have been forced to the conclusion that alcohol is a useful food and a necessary medicine? Then I tell them that it is their duty (3) to choose the lesser of two evils. Prescribe alcohol, either dietetically or medicinally, and you frequently create or resuscitate, and always run a risk of creating or resuscitating, supposing the patient survives, an uncon-

trollable and ultimately fatal appetite for intoxicating drink. Thus in your desire to cure one disease, which many believe could be cured more certainly and more safely by other means, you administer a remedy which may and often does produce another disease of a much more serious character, inasmuch as it involves not only physical but moral injury to the patient, and untold misery to his friends. You also give rise to, and confirm, that widespread faith in the necessity for and remedial powers of alcoholic liquors, which I have said is at the very basis of the drinking customs, and is the remote origin of the traffic itself and all its evils. For while I do not say that all who drink do so because they think the drink is good for them, I do say that all *begin* to drink ignorant of the fact, and because they are ignorant of the fact, that alcohol is inherently and essentially bad for them. And this ignorance is the result of the prescription and recommendation by medical men of the various intoxicating productions of the brewer and the distiller. And remember that the advocates of alcohol can claim no especial advantages for the alcoholic treatment which are not also claimed to a superior degree for the non-alcoholic treatment, by those who have expunged this agent from their list of remedies altogether."

Origin of the third British medical Declaration.

Stirred to the quick by these earnest words, Mr. Robert Rae, the secretary of the National Temperance League, consulted with Mr. Ernest Hart, editor of the *British Medical Journal*, who advised that the counsel of Dr. Parkes, of the Army Medical School, Netley, and other prominent medical men, should be sought with reference to the practicability of such a conference as had been suggested in the *British Medical Journal*. Dr. Parkes questioned the utility of a conference, and recommended a Declaration instead. Mr. Rae urgently requested that he would draft such a Declaration as the profession in general would be prepared to sign. This was done, when Mr. Rae submitted it without delay to Dr. Burrows, Sir Thomas Watson, Sir James Paget, and Mr. Busk, each of whom indicated a few alterations, which were at once adopted. These four physicians then signed the Declaration; after which it was presented, at the instance of Dr. Burrows, "to some of the senior and

most distinguished members of the medical profession in London" for signature.

Opinion of the *Times* as to the importance of the third medical Declaration.

The Declaration, after being signed by two hundred and sixty-nine leading members of the medical profession, was printed with its full list of signatures in the *Times* (January 1, 1872), which, in commenting on it three days later, said :—

"It is very seldom that a great social question such as that of the limits between a wholesome and safe use of alcohol on the one hand, and injurious excess on the other, evokes such a body of witnesses as that subscribed to the medical protest in our columns. It is impossible not to attach very great value to the deliberate opinion of those who must know a good deal of the subject, and who are not generally given to exaggeration. . . . That two hundred and fifty medical men, including the most distinguished names in the profession, should have agreed to a manifesto against the excessive and incautious administration of alcohol, has taken the world rather by surprise, as revealing a certain unsuspected background of actual knowledge and unanimity. Of course there are protests and dissents, but they do not come to much. . . . This famous document, whether it be read with implicit agreement or with criticism, is certain to call attention to the history and actual results of alcoholic stimulants wherever there are eyes to see, and reason to understand."

The *Lancet*.

"This list of names is very representative," says the *Lancet* (December 23, 1871). "It is, indeed, so inclusive that a few honoured names which are absent are conspicuous by their absence.* It is so comprehensive that one is surprised to miss a particular name that seems necessary to give complete authority to the document."

The *Pall Mall Gazette*.

And this from the *Pall Mall Gazette* has no uncertain sound—

"Although there are those who express indignation at

* *Apropos* of these remarks by the *Lancet*, it is but fair to recollect that, with the exception of the names of Sir William Gull and Sir William Jenner, it can hardly be said that any conspicuous medical name is absent from this Declaration, and these two physicians were at that time at Sandringham, attending upon the Prince of Wales in his critical illness.

the assumption that alcohol is ever prescribed inconsiderately in large quantities, or that sufficient care is not always taken to cut it off at the right moment and to arrest subsequent habits of induced tippling, there are too many well-known examples of habitual evil induced by medical prescription to make us hesitate to accept the Declaration in its every word and in all its meanings."

The Declaration read as follows :—

The wording of the third medical Declaration.

"As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

"They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

"Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness, and welfare of those classes, and neutralizing, to a large extent, the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict, within proper limits, the use of alcoholic beverages, and gradually introduce habits of temperance."

General impression produced on the public mind

Though couched in terms less complete and uncompromising than some desired, this document was yet "far in advance of social sentiment and popular practice," and

by the publication of it.

it raised such a storm of discussion within the medical profession, and led to such controversy in the daily press, as made it famous almost ere the ink was dry, and the animated dispute of which it was the nucleus did not subside until some of the keenest intellects, ripest experiences, and, fortunately, some of the noblest consciences in and outside the medical profession, had wheeled into line and spoken words which advanced the whole temperance reform movement in the hearts and conviction of the people, as almost nothing else could have done.*

Medical opinions evoked by the publication of the third Declaration. Dr. Henry Munroe.

In the great medical meeting in Exeter Hall (January 30, 1872), Dr. Henry Munroe, of Hull, said—

"Forty years ago we used to bleed—or rather, I should say, 'phlebotomize'—every one. I have sat at the table of a hospital forty years ago, and when I have seen prescribed

* At about this time there were revivals of the temperance movement in other countries.

Some six hundred of the physicians of Holland issued this medical Declaration, even more stringent than the English one:—

"1. The moderate use of strong drinks is always unhealthy, even when the body is in healthy condition. It does not do any good to the digestion, but even interferes with that process; for strong drinks can only temporarily increase the feeling of hunger, but not in favour of digestion, after which strong reaction must follow, and evils which are usually attributed to other causes, but often result from the habitual use with moderate drinkers.

"2. The assertions that intoxicating drinks used moderately are naturally innocent means of cheering up—that they are useful in severe colds—or that they are with labouring men equivalents for insufficient nourishment—or useful in misty and humid air—or for people obliged to work in the water—or a protection against contagious diseases—are without any foundation, and contradictory to experience and to human reason; and the habitual use of the same has therefore an unhealthy effect, and an influence unlike what people expect from them.

"3. The habitual use of strong drinks works most perniciously on all diseases, and especially on consumption.

"4. Regarded as the usual drink of all classes, they are not only improper on account of the above reasons, but also against moral development and material prosperity, in such measure as to be considered and to be stamped as the greatest underminers of the actual welfare of mankind."

In 1872 America manifested her sympathy with the movement, and in May of that year, at the twenty-third annual meeting of the American Medical Association—about one thousand members being present—a resolution to discourage the use of alcohol in medical practice was unanimously carried.

blue pill at night, and black draught in the morning,' I have known what was going to be the next question. The next question would be, 'Have you any pain anywhere?' And woe to the patient if he said he had, or if even he thought he had. The next line would be certain to be *Venesectio ad uncias duodecim* ('bleeding to twelve ounces'). I have seen that repeated a dozen times in one morning when I was a pupil, upon all sorts of persons, of all ages, of all sizes, and of both sexes. A reaction took place in the profession. We gave up the lancet, as we found that people living in cities and towns were not always labouring under inflammatory diseases. What we are labouring under now is debility. Everything is debility now. We went to the other extreme—therefore brandy became the *elixir vitæ*, the sole panacea for all the ills that flesh is heir to. If a man were in collapse, brandy relieved him; if in the agony of colic, why, brandy revived him; if life was burning out in fever, brandy cooled him; and if he was starved to death, why, brandy warmed him. In fact, brandy was the pet drug of the Pharmacopœia. Everything else dwindled into obscurity. I will give you some of my reasons for discontinuing the treatment of disease with alcohol. I don't like to talk of myself, but I can tell you that I have had twenty attacks of gout during the last twenty years; if that doesn't make a man wiser I don't know what will. During the first ten years of this period I had sixteen attacks lasting from seven days to four weeks; but during the last ten years, since I abandoned the use of alcoholic liquors in any shape whatever, I have only had four attacks, two of them through accidents, and the other two very mild, lasting only a few days. I have tried brandy and water, I have tried beer, and I have tried wine, and the whole category of such things, and I have ascertained how much of each of them it will take to induce an attack, and I have published these experiments in the *Medical Journal* and need not repeat them to-night. I determined to discontinue the use of such liquors, and have been much more successful in practice ever since. I ceased also to order any more for my patients, and they are better too. In Hull, in the year 1849, we had the cholera very bad indeed. It ravaged amidst us fearfully. Above two thousand persons were buried in our cemetery,

victims of this disease. I saw at least one hundred persons a day in that dreadful disease, and most of those who died were from thirty to forty years of age. We tried the brandy-and-opium treatment, and that was a failure. Altogether we lost somewhere about forty or fifty per cent. of the persons attacked by the stimulant treatment and with opium. One medical man thought that the opium with the brandy was not strong enough (something like Mr. Skey), so he ordered that very strong doses of camphine mixture should be administered, and he pledged his reputation that this would cure any case of cholera, but I believe it was a failure. The cholera took off nearly all the drunkards. People whom I have seen intoxicated at my surgery in the morning were dead the same night, and buried the next morning. It was a fearful thing. *I remember six cases of persons who were so obstinate as to refuse to take any doctors' stuff or brandy. I wrapped them up in blankets sprinkled with turpentine and left them. Four out of that six are walking about now.* They recovered, but we lost fifty per cent. of the others. Turning to fever—I have tried alcohol in fever, and I have treated fever without alcohol; and my *experience is that we lose five per cent. in treating cases of fever without alcohol, and twenty-five per cent. with alcohol.* It is the experience of workhouses and hospitals *that one patient in ten of those treated with brandy for fever died;* but of those treated *without brandy only one death in thirty cases occurred.* I have treated many cases of delirium tremens, and I have given alcoholic liquors heroically, but had many deaths during that treatment; but *when the patients were isolated and cut off from all spirits and liquors, I have never lost a case. It is a rare thing to lose a man under such treatment.* In regard to hæmorrhage and violent floodings, I remember a case of this kind in which I had to sit up the whole night to give brandy, and religiously gave it to the lady, and I have gone home in the morning with the reflection, 'What a wise provision it is that we have such an excellent thing as brandy always at hand!' I tried the case next time without brandy, and the lady sooner got better, and there was no secondary fever, and her remark was, 'I shall never try brandy again.' I could go on multiplying these illustrations, but

I must not tire you. With regard to the indiscriminate use of alcohol, this 'Declaration' says, it is 'believed' it has a tendency to promote the formation of habits of intemperance. It seems singular, but I believe it to be true, and it is a great sorrow to me now to think of, that for twenty years I made many families unhappy. I believe I have made many drunkards, not knowingly, not purposely, but I recommended them to drink. It makes my heart ache, even now, to see the mischief that I have made in years gone by, *mischief never to be remedied by any act of mine.* But in this respect at least I do not sin now, and have not done so for the last ten years. I do not take intoxicating drink myself, and I do not have it in my house, and I do not give it to anybody else."

Dr. J. J. Ritchie.

Dr. J. J. Ritchie, of Leek, said (in the same meeting), "In my practice I have given no stimulants in fever for years. I have never, so far as I remember, for ten or twelve years, lost a single patient from typhoid fever, and never given a single drop of stimulant therein."

Mr Higginbottom.

The venerable Mr. Jno. Higginbottom, of Nottingham, in a letter to the *Times*, dated January 12, 1872, referring to this Declaration, said—

"I was educated in the opinion that alcohol was absolutely necessary in the treatment of disease, and for the first twenty years of my practice I gave it to my patients, but for the last forty I have discontinued it altogether, not having once prescribed it as a medicine. As early as 1813 I discontinued port wine in typhus fever (the term typhoid was not come into use as a distinction at that early period), afterwards in English cholera, uterine hæmorrhage, delirium tremens, and in cases of exhaustion and sinking. In the year 1827 I had lost all confidence in alcohol as a medicine, from a conviction of its inefficiency, and also from its very dangerous qualities. It is not necessary to enter into the details of my practice, as I have given them to my medical brethren in the *Lancet* and *British Medical Journal.* In August, 1862, I had a paper read before the British Medical Association, in London, on the non-alcoholic treatment of disease.

"The result of my non-alcoholic treatment is, that acute disease is much more readily cured, and chronic disease more manageable. I have not known of any

patients having been injured by my disuse of alcohol. It is equally successful in surgical as in medical practice. No person can form any idea of the superiority of the practice of medicine and surgery when alcohol is removed from it. It is the complete emancipation from the slavery of alcohol, and the practitioner has a freedom he never before experienced."

The important initiative, energizing, and effectuating part taken by Mr. Robert Rae in getting this Declaration before the public is eloquently testified to in the address *

* "To Robert Rae, Esq., Secretary to the National Temperance League.

"DEAR SIR,—With feelings of very great pleasure we welcome you, *in the name of the Council of the British Medical Temperance Association*, on your return to the shores of old England.

"We do this all the more heartily and appropriately because you have always taken such a deep interest in the medical aspect of the great temperance reform, and because, by your intelligent efforts, the medical profession has been largely influenced in favour of total abstinence.

"It was at your initiative that the important medical Declaration of 1871 was set on foot, and chiefly through your tact and perseverance that it was carried to a successful issue. From that time we may date a new departure in the medical treatment of the question, by which it received a mighty impetus.

"The very useful and encouraging series of breakfast meetings given annually to the members of the British Medical Association bear testimony to your untiring efforts and organizing skill.

"By your energy those great meetings held in the large hall above, and addressed by medical men, were carried to a successful issue, and exercised a marked convincing, converting, and confirming influence.

"To you we are indebted for the establishment and able conduct of the valued *Medical Temperance Journal;* and, lastly, our Association itself is under a deep debt of gratitude to you for your kind co-operation from the period of its origin to the present time.

"'There are good works that are evident,' and such are your labours in the temperance cause. We rejoice to see you again among us, refreshed in body and mind, and trust that you may be spared to see more abundantly the certain fruit of all your efforts to dispel the pernicious ignorance respecting the action and tendency of alcohol still so prevalent among all classes of society.

(Signed) "BENJAMIN WARD RICHARDSON, M.D., LL.D., F.R.S.,
"*President.*

"JOHN JAMES RIDGE, M.D., B.S., B.A., B.Sc.Lond.,
"*Hon. Sec.*

"Lower Room, Exeter Hall,
20th October, 1881."

which was presented to him by the Medical Temperance Association—convened in Exeter Hall (October, 1881)—in grateful acknowledgment of his vital and continual services in temperance reform.

§ 56. The publication of the third British medical Declaration was the initiative of a marked departure in medical practice.

Dr. Charles Hare on the decline in the use of alcohol as a medicine.

Dr. Charles Hare, president of the Metropolitan Branch of the British Medical Association, in an article in the *British Medical Journal* (July 28, 1883) states—

"I well remember the time (twenty to twenty-five years ago) when alcohol-giving was so rampant that it was difficult to see a patient who had been a few hours in the hospital before the time of one's visit, who had not already been put, almost as a matter of course, by the physicians or clinical assistant, on three or four ounces of brandy, or on double that amount of wine; and because I would not give way to that alcohol-craze, and ventured to show that many serious diseases might be cured with the administration of little or no alcohol, I was considered (I well remember) the most unorthodox of teachers, if not something worse than that. Rapid was the increase in the use of alcohol between the years 1852 and 1862, and indeed, in many cases, up to the year 1872; and you cannot fail to trace therein the great influence of the teachings and writings of Dr. Todd, and especially of his views on the *Treatment of Acute Diseases.* Thanks to the careful, prudent, and honest energy of Dr. Parkes,* a change of practice occurred, the consumption of alcohol diminished so much as to show in 1882 a most remarkable reduction in the cost of wine and spirits in all the hospitals (except St. George's) from which I have received returns.

* The verdict of Dr. Parkes on the use of alcohol as a medicine is too thorough and conclusive not to be included here also:—

"If spirits neither give strength to the body nor sustain it against disease—are not protective against cold and wet, and aggravate rather than mitigate the effects of heat—if their use, even in moderation, increases crime, injures discipline, and impairs hope and cheerfulness; if the severest trials of war have been not merely borne, but easily borne, most easily borne without them; if there is no evidence that they are protective against malaria or other diseases, then I conceive the medical officer will not be justified in sanctioning their issue under any circumstances."

Thus (without making corrections for the somewhat increasing number of beds), the cost of wine and spirits consumed every tenth year, from 1852 to 1882, at Guy's, was £496, £1231, £1446, and £953; at Middlesex, £215, £550, £413, and £353; at Westminster, £208, £432, £367, and £137.

"On the other hand, the use of milk has most rapidly increased in every hospital without exception, and has replaced—I believe greatly to the advantage of the patients—the alcohol in the treatment of disease. The quantity consumed in 1852 at St. Bartholomew's cost £684, and in 1882, £2012; at Guy's, £236 and £1488 respectively; at the London Hospital, £426 and £2427; and so on."

§ 57. But although alcohol has thus rapidly lost ground, and many physicians of repute have dispensed with it altogether, it is still considered and used as a great therapeutic agent. Even those who use it most, however, feel called upon to give reasons for their faith; they must tell how, when, and why they employ it. Formerly alcoholic prescriptions constituted an important and complicated chapter in therapeutics, owing to both professional and public ignorance of the nature of alcohol, together with the acceptability of the medicine to the patient, and the convenience of the prescription to the physician. Then it was considered to be of the utmost importance what kinds of wine, spirits, or malt liquors were prescribed, a precaution now seen to have been largely based on ignorance. Investigation has proved that in all alcoholic liquors the alcoholic ingredient is essentially the same, viz., ethyl-alcohol. The other ingredients, such as various acids and salts, odoriferous and flavouring ethers in minute quantities, and small portions of undecomposed albuminous particles, are not the ingredients for which alcoholic drinks are prescribed. If these are wanted, chemistry can furnish them without the alcohol; moreover, they exist in alcoholic drinks in a proportion so minute that, excepting for a small acceleration or retardation of digestion—largely dependent upon the proportion of salts—medical science has not found any exact therapeutic differences in their uses. But, allowing that the most distinct differences had been proved to exist, owing to the variety of liquors used, it still

Former and present opinions on the use of alcohol as a medicine.

remains an incontestable fact that, even though mysterious seeds of health inhered in special liquor prescriptions, the ripened science of liquor adulteration and its universal practice make it absolutely impossible for a physician to safely prescribe wines or spirits, or malt liquors, unless he can personally supply the same, after having first ascertained that they contain exactly what is required.

Hence, any medical man who, in prescribing alcohol, does not specify it as alcohol, *i.e.*, so many drops, drachms, or ounces to so much water, is a quack. He orders a thing of which he cannot pre-scribe the effects.*

Some points regarding alcoholic prescriptions and their preparations.

While considering this point of alcoholic prescription it is proper to state that it is the physician's duty when prescribing alcohol, just as much as when prescribing any other "powerful drug," to use scientific language in the prescription; to disguise the taste of it in a compound preparation, and to label it as what it is—*poison*. It seems also proper to mention in this connection that ethyl-alcohol, though a most excellent chemical solvent, can, in most cases, be replaced by glycerine, or if ethyl-alcohol must be used, it can be sufficiently disguised—without hurting its solvent powers—to prevent its being tempting.†

The principal therapeutic uses of alcohol.

Therapeutically,‡ alcohol is prescribed for both external

* As a rule, medical men know no more of the value of wine as a medicinal agent than anybody else. . . . A glass of sherry is their universal panacea for want of tone in the system; but sherry may mean anything but the thing it is really called.—The *Times*, Sept., 1865.

† Even granting all that its most enthusiastic defenders claim for alcohol as a medicine, and even if the use of alcohol were confined to the prescription of the physician, the medical profession are surely justified in discontinuing its use on the ground of its proven dangerous power to become master of body and mind.

As it is—when, instead of being confined to the doctor's dose, the habit of alcoholic drink is a universal one, and when doctors themselves are deprecating its use, and lamenting over its fearful results—its medical defenders can hardly escape the imputation of mere pecuniary self-interest; knowing as they do that alcoholic drinks have produced innumerable drunkards.

‡ A German work on *Therapeutics* (Hamburg, 1883), by the well-known Dr. Harnack, furnishes a discriminating scheme for the use of alcohol as a medicine, which is accepted by a large and eminent portion of German physicians.

The digest of his scheme is as follows:—

and internal use. Externally, principally as a lotion, its use is, of course, less injurious. It has been found a most efficient means of destroying vermin in the hair, to be a good lotion for irritable ulcers, and to have a cooling effect when applied immediately to wounds made by amputation.

Internally it is used in manifold ways:—

1. As a *stimulant.*
2. As a *narcotic.*
3. As an *antispasmodic.*
4. As an *antiseptic* and *antipyretic.*

As a stimulant.

That alcohol never is a *stimulant*, was clearly shown in chapter v., and therefore, when used as a stimulant, it must of course be wrongly used.

It is a *narcotic*, and, like most narcotics, when taken in small doses, it is a pseudo-stimulant. The system dislikes and resists being put in chains, as much as a man would do; if the chains are too heavy, as in the case of a large dose of narcotica, the system must temporarily submit, the struggle being useless; but when the fetters are comparatively light, it at once musters its reserve forces to throw them off. And this activity, together with the feelings of relief (the nerves having been dulled in the very attack), are

1. *Calefacientia* (heat-makers), or means for transforming living force into heat; or economization of the heat already generated. Among these he counts turpentines, camphors, ammonia, etc., but *not* alcohol.

2. *Antipyretica* (fever-allayers).—Among which quinine, veratrin, carbonic acid, and alcohol.

3. *Excitantia* (nerve-irritants).—Here we find alcohol first in the list, then camphors, ethers, oils, etc.

4. *Intoxicants.*—Ethers and alcohols.

5. *Anæsthetica* (temporary nerve-benumbers).—Chloroform, ether, but *not* alcohol.

6. *Hypnotica* (sleep-givers).—Opium, morphia, herba, cannabis, *not* alcohol.

7. *Anodynes* (pain-soothers).—Opium, morphia, chloral, *not* alcohol.

8. *Sedatives* (nerve-quieters).—Opium, chloral, *not* alcohol.

9. *Tetanica* (motor-stimulants).—Strychnia, *not alcohol.*

10. *Tonics* (strength-givers).—Quinine, iron, strychnia, *not alcohol.*

11. *Anti-Spasmodics* (cramp-quellers).—Chloral, chloroform, morphia, opium, belladonna, hyoscyamus, etc., *not* alcohol.

Thus he limits alcohol as a medicine to its uses in allaying fevers, and as a nerve-irritant and intoxicant.

misunderstood, are supposed to be benefits, when in reality they are signs of paralysis, and the results of the system's struggle to defeat its foe.

In cases where an artificial stimulant is useful, Dr. Symes Thompson recommends the following prescription:—"Quassia chips, a quarter of an ounce; cold water, a pint. After standing for half an hour, strain; the infusion is then ready for use, and may be taken, a wineglassful at a time, alone, or mixed with a teaspoonful or two of 'malt extract.'"

As a narcotic.

Considered in its true character, as a narcotic, the power of alcohol to deaden pain* is unquestionable. In colic, for instance, a draught of hot water with alcohol no doubt relieves the pain, but it accomplishes this by deadening the nerves. It provokes a more copious flow of the gastric juice, with the immediate effect of facilitating the interrupted digestion. Still, we have even the word of Drs. Todd and Bowman, in their *Physiological Anatomy* (vol. ii. p. 210), that alcohol "*retards digestion by coagulating the pepsine, and thus interfering with its action,*" so that the supposed good is largely neutralized.

If the hot water, instead of being mixed with alcohol, is flavoured with peppermint, ginger, etc., the water will dilute the irritating contents of the stomach; the heat of the draught will soothe the irritated nerves, and the ginger, peppermint, and other carminatives will aid the muscular wall of the intestines to expel the gas and irritating contents.

If this does not suffice, an emetic to free the stomach from irritating ingesta, a purgative to clear the intestines of crude or irritating substances, and a corrective, such as simple chalk mixture, to neutralize soured and fermenting foods, will effectually assist Nature without injuring her.

In obstetric cases, dosing with alcohol is often resorted to for lessening the suffering with which child-birth is attended; and upon the field of battle, when chloroform or ether are not at hand, a large dose of alcohol may

* The question whether there is not a conversion of the expression of wrong, from that of pain into something of corresponding harmfulness to the system (though not in the same way observable), as there is in the conversion of the natural forces of motion into heat, etc., may not be unworthy of the consideration of scientists.

prove an efficient anæsthetic for a patient during an amputation.

As a narcotic alcohol is an arrester of vital action, and primarily of nerve sensibility; and this effect can certainly be obtained by means of ether, chloroform, opium, and other well-known drugs.

As an anti-spasmodic.

As an *antispasmodic*, alcohol may, because of its narcotic action, be at times found useful when other means are not at hand.

Dr. Edmunds on this point.

In *Alcohol as a Medicine* (Manchester, 1867), Dr. James Edmunds says, "In the case of a child cutting its teeth, there is a nervous irritation which throws the whole body out of gear, and the respiratory muscles become locked, as it were, by the violence of the spasm of an attack of convulsions. Here the patient may be killed by momentary suffocation, through the very energy with which certain parts of the body act, just as a machine may become 'locked,' and in order to put it right you have to turn the steam off. Under such circumstances alcohol sometimes proves useful as a paralyzer and blunter of those extreme sensibilities which evoke convulsive attacks."

In cases of emergency, such as laryngismus (spasmodic croup) or convulsions, a small dose of spirit may be used with good effect; but such cases are exceptional, and should be in the charge of skilled physicians. Certainly in all ordinary cases of "spasm," "flatulency," etc., the draught of hot water flavoured with ginger, peppermint, etc., or, at times, with a teaspoonful of sal-volatile, is a safer and better remedy.

As an antiseptic and antipyretic.

The use of alcohol internally as an *antiseptic* and *antipyretic* has been its best and longest defended stronghold, garrisoned still by discriminating physicians.

I will treat of these two uses in connection, as they are often combined.

As we saw in chapter v., alcohol has the general effect on the system of congesting the blood in the uttermost capillaries, whose contractive powers it paralyzes. The blood, charged with alcohol, goes to and remains especially in that vast area of minute blood-vessels which penetrate the most delicate parts of the organism, the very parts most endangered by the ravages of exhausting fevers, and as alcohol is so powerful an antiseptic, it has been

deemed a most useful agent in arresting the waste of tissue.

Even were it so, it must not be forgotten that in this very antiseptic process, *i.e.*, in the tendency of the albumen to coagulate and the retarding of the transformation of the hydro-carbons, alcohol does a vast amount of harm; it impoverishes and degenerates the blood by depleting the blood-corpuscles and by occupying, poisoning, and wasting the water in the blood and tissues; the degree of harm done, as well as the extent of tissue-preservation, being equally dependent upon the quantity and the degree of saturation of the alcohol used.

And in addition to all this is the extra labour demanded of the entire machinery of the body in order to expel alcohol and minimize the injuries done by it. Then there is always the danger that the use of alcohol as a medicine will lead to the evil habit of using it as a beverage.

In the measure that alcohol preserves sick tissues from dangerously rapid waste, must it check the natural processes of nutrition, and at the same time compel the whole system to muster its last forces to cope, not with its disease, but with its arch-foe alcohol.

Dr. S. C. Smith on the comparative worthlessness of antiseptics.

Dr. Solomon C. Smith, in a paper upon *Antiseptic Inhalations* (*British Medical Journal*, February 23, 1884), says of antiseptics, "The term antiseptic, in fact, presupposes the existence of some such septic processes as we now know to be caused by bacterial growth. It has long been thought possible, by inhalations of creasote, to limit decomposition in the expectoration; but, now that the investigations of many observers have shown the constant presence of certain bacteria in phthisical disease, the hope is that not only may antiseptic inhalations control septic processes in dead secretions, but that they may be destructive to those micro-organisms which are at the root of tubercular disease in living structures. To kill bacteria is one thing, to kill germs is quite another. It has been proved that they can stand a short boiling, that they can be floated in air-bubbles through strong vitriol, that they can be washed with carbolic solution of any strength short of five per cent., without being killed, or losing their power of self-multiplication. Is it likely, then, that any vapour which

could possibly be inhaled would be capable of destroying organisms which are so retentive of their vitality? I think it is quite obvious that all evidence shows that it is impossible, either to keep germs out of the body, or by antiseptics to kill them. What else, then, can inhalations do?"

Notwithstanding earnest protests against the use of alcohol in typhus and in typhoid fevers, it has been a general practice. Now that it begins to look as if alcohol should be routed even from this stronghold, a glance at some of the landmarks in this struggle is interesting.

The Rev. Dr. Hancock on water-treatment in fevers.

The Rev. Dr. Hancock, of London, in his *Febrifugum Magnum* (1720), exalts the use of water in fevers, and his ideas are further elaborated by Dr. Robert Jackson, in his *Exposition of the Practice of Affusing Cold Water on the Surface of the Body, as a Remedy for the Cure of Fever* (Edinburgh, 1808).

Dr. Billing on water-treatment in typhus fever.

Dr. Billing, who introduced clinical lectures, spoke strongly to the point in his *First Principles* (1839), in these words:—

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

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

Dr. Thomas Beaumont on the same.

And Dr. Thomas Beaumont, of Bradford, said, in a paper read before the Royal Medical Society of Edinburgh (April 7, 1843)—

"In my own experience, which has extended over nearly thirty years, I have almost invariably rejected the use of wine in the treatment of fever; for early in my professional life I was engaged in a close attendance of some months on a class of patients, most of whom could

not afford to procure wine, in the populous village of Guiseley, where typhus ranged from the ordinary form of continued fever, down to the worst kind of *typhus gravior*. The number of cases, and the severity of the symptoms, were truly frightful. I made 'a virtue of necessity,' and, contrary to my professional prejudices, proceeded in almost every case without a drop of wine. The result proved most propitious, *the rate of mortality being lower than I ever remember in an equal number of cases*. From that period I have regarded the use of stimulants in fever, and especially of alcoholic stimulants, with considerable distrust. If, indeed, the effect of alcohol be to carbonize the blood—and of this there can be no reasonable doubt—*then its influence must be analogous to that of fever itself*. The truth is, alcohol is a treacherous stimulant, and though it may rouse the depressed powers for a time, is invariably followed by a corresponding collapse."

In the discussions which have recently taken place before the Medical Society of London, upon the cold-bath treatment in typhoid fever, the general character of the evidence given against antipyretic treatment with drugs, and especially alcohol, was conclusive. Dr. William Cayley furnished some remarkable data, stating that "during seven years (1868–1874) the rate of mortality in the Prussian army from typhoid fever was fifteen per cent.—an extremely favourable rate, which spoke much for the efficiency of the medical department. The antipyretic treatment, chiefly in the form of cold bathing, was then introduced, and during the next seven years (1875–1881) the rate was 9·7 per cent. Here a comparison of exactly similar instances was made. The men in the two cases were of the same age, of the same social position, fed in the same manner, clothed in the same manner, lodged in the same manner, and, in all respects, placed under the same conditions; the only difference being in the mode of treatment. But, as German statistics on this question were perhaps regarded as *suspect*, an appeal might be made to French authorities, and here Professor Jaccoud might be cited; and perhaps his authority would have more weight with many, inasmuch as he was decidedly opposed to Brandt's method, but without having given it a fair trial. He stated, in the debate on this subject at

Dr. Cayley on the merits of cold-bath treatment in typhoid fever in Germany and France.

the Academy of Medicine last year, that, after a careful collection of more than eighty thousand cases, he found that the average rate of mortality in typhoid fever in France, under the old methods of treatment, was about nineteen per cent.; whereas, under the new method, it was below eleven per cent. It was now necessary to inquire what was this new method which had effected this great reduction in the rate of mortality. Professor Jaccoud had his patients sponged with cold vinegar and water, if necessary, as many as ten times in the twenty-four hours, which he termed giving them a *séance;* and also administered, from time to time, large doses of quinine or of salicylate of soda. Now, whether a patient was sponged ten times a day with cold vinegar and water, or had an occasional cold bath, was a question, not of principle, but of detail. In either case, the same end—namely, the persistent reduction of temperature—would be affected. It need hardly be said that the antipyretic treatment was not bound up with the system of cold bathing, or of any particular method of reducing temperature. Cold bathing was, perhaps, the most efficient mode, and the one most generally applicable, and which, on the whole, caused least annoyance to the patient; but a large number of cases were not suitable for it, and for these other means must be adopted. Dr. Cayley stated that, in his opinion, keeping the temperature down by the abstraction of heat gave much better results than the repeated administration of large doses of the antipyretic drugs, as these powerful remedies could not be given in these large and frequently repeated doses without incurring the risk of seriously disturbing important functions. In his opinion, therefore, they should be regarded as adjuncts to the other antipyretic methods, and not as substitutes."

Dr. A. T. Myers on the great mortality from typhoid fever at St. George's Hospital (1877–1883) under alcoholic treatment.

It was shown that the totality of deaths when alcohol was used was decidedly greater than when it was not. Dr. A. T. Myers stated that from a collection of reports in the Medical Register of St. George's Hospital during the last seven years (*i.e.*, 1877–1883) it was found that in a series of 281 cases, all excepting 13 per cent. having been treated exclusively by "expectancy and alcohol," the number of deaths had been 69, that is, a death-rate of 24 per cent.

The *British Medical Journal* (March 1, 1884), in summing up the outcome of these important discussions, says—

Summary of the cold-bath treatment discussions, before the London Medical Society, in *British Medical Journal*, March 1, 1884.

"Dr. Coupland, in his elaborate and able paper, rightly says that cold bathing is the only measure which has succeeded, and he might have said on several occasions, in saving life threatened by hyperpyrexia, and no one would dispute its efficacy as a last resort in such urgent cases. But it is the employment of the bath to control the whole course of the fever that he discusses in his paper. The conclusion at which he arrives is one in common with Brandt, Jürgensen, Liebermeister, Cayley, and others, that the mean mortality of London from enteric fever treated all round is fifteen to eighteen per cent.; while the mortality from cases treated by the cold bath would appear to be from ten to seven per cent. This is so material a reduction that, if the facts are to be relied upon—and we think they are sufficient for the purpose—it should ensure for this treatment a much more extended sphere of application than it has hitherto obtained. It is admitted on all hands that the reduction of temperature by bathing is more decided and more persistent than by any other means; but, at the same time, we cannot think that the ingenuity of the mechanical mind has exhausted itself in its present measure of applying cold to the surface of the body. It would hardly be an insuperable difficulty to apply continuous cold to the surface, either dry or moist, equivalent to that of the bath; and it is quite possible that in the ice-pack and the water-bed, or some modification of it, the advantages might be obtained without the necessity of taking the patient from his bed." *

It is a happy augury for the future that the founder of a new school of medicine (the Dosimetric), Dr. Ad. Burggraeve, in his *Handbook of Dosimetric Therapeutics*

* The *Medical Times* (March 8, 1884) half grudgingly admits that the cold bath (sponging or wet pack) is superseding the drug treatment in Germany. It says, "The bath treatment of enteric fever, which, if not absolutely originated, was at least brought into prominent notice for the first time in Germany, has lately been the subject of discussion at the Medical Society of Leipsic. No overwhelming consensus of opinion was brought to light as to the universal value of the treatment, although its acceptance would appear to be general."

(Ghent, 1876), does not even mention alcohol. For typhoid fever he prescribes Seidlitz salt, phosphoric acid, aconite, veratrine, etc. "The body must frequently be sponged," he says, "with cold water or solution of salicylic acid. In cases of high pyrexia the cold bath may be necessary."

Thus, in its very citadel, as a therapeutic agent, alcohol is found to be very inferior in value to other and innocent remedies.

History and progress of the London Temperance Hospital.

§ 58. A foundation for hoping that the use of alcohol, even as a medicine, will ultimately be abolished, was laid ten years ago in the erection of the London Temperance Hospital.

The first steps toward the establishment of this institution may be said to have been caused by the success of non-alcoholic treatment of disease by Dr. S. Nicolls, the medical officer of the Longford Poor Law Union, during sixteen years (till 1865).

Dr. S. Nicolls' report on the results of non-alcoholic treatment of disease.

In his "Report" for the year ending 29th September, 1865, he gives these figures:—

Fever	Admitted	142	Recovered	135	Died	7
Scarlatina	„	33	„	30	„	3
Small-pox	„	48	„	47	„	1
Measles	„	8	„	8	„	0
		Cases 231		Recoveries 220		Deaths 11

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

"Of the deaths in the fever wards, one was a boy aged ten years, whose fever became complicated with pneumonia, of which he died; two were members of the constabulary force from a neighbouring Union, conveyed considerable distances (I consider the journey acted unfavourably); four were women, one of whom was deserted by her husband, leaving six helpless children with her; one was a wandering mendicant brought in from the gripe of a ditch in a hopeless condition; another was an unfortunate, whose constitution had been broken down by intemperance; the fourth was a young woman who was recovering from scarlatina when she was attacked with typhus. Of the other four deaths, one was a case of confluent purple-pock,

in a boy eight years old; three were from scarlatina, occurring with very delicate children, not two years old. The fever was, I dare say, of as bad a character as in the other parts of Ireland. In many instances entire families were *brought in in a very bad condition.* I still continue the treatment which for *sixteen* years I have found so successful."

The origin, foundation, and work of the London Temperance Hospital.

In 1867 Dr. James Edmunds, senior physician at the British Lying-in Hospital, London, proposed a similar experiment at that institution. It worked for one year with results of a reduced death-rate among both mothers and live-born children. But opposition, chiefly by subscribers interested in the liquor trade, became so great as to render continuance of this effort impracticable. About two years later, however, a meeting, consisting practically of those who had been thus handicapped at the British Lying-in Hospital, was held at the National Temperance League Rooms, and a committee was formed to further the establishment in London of a General Temperance Hospital. A temporary hospital was begun at 112, Gower Street, which had only sixteen beds, but such success was the result, that a fine freehold site was subsequently taken in Hampstead Road, and one block, containing fifty-two beds, was erected.

An aged gentleman who has been deeply impressed with the results of its work, and is anxious to see the hospital completed before his death, has placed some £10,000 at the disposal of the Board, and a second wing is now being erected (April, 1884). These blocks will raise the number of beds to about one hundred and twenty, while a large outdoor department will be in operation. The plan includes also a school and institute for temperance nurses, and a full medical school for medical practitioners, for which adjoining portions of land are obtainable.

The Board of Management in its report, May, 1883, proved this experiment to have been a success. "At the present time," says this report, "not only are men of distinction ready to admit the value of the principle, with few limitations, but the medical officers of various public institutions are applying it more or less completely, and with a success which insures its widening adoption. . . . The practical conclusion points to such a generous support

of the Temperance Hospital, and such completion of its scheme, as will keep its work prominently before the public eye, and will lend the weight of its experience and authority to a more general exclusion of alcohol from the medical treatment of the sick."

The eleventh annual report of the London Temperance Hospital gives its data to April 30, 1884. The following summary of the results of the indoor cases treated during the ten and a half years certainly compares favourably with the reports issued by other metropolitan hospitals where alcohol is still very freely used :—

IN-PATIENTS.

Total number admitted	2278
Cured	1272
Relieved	850
Died	113
Still under treatment	43

It thus appears that during the ten and a half years ending April 30, 1884, the number of patients admitted to the beds of the hospital was 2278. If we deduct the 43 still under treatment in the hospital, there will remain 2235 completed cases. Among these the 113 deaths make a mortality of 5·05 per cent. for the ten and a half years. The mortality up to April 30, 1883, was a little less than 4·5 per cent., and, therefore, the mortality of the last year has been higher than the previous average owing chiefly to the greater mortality among the surgical cases of the year. Of course fluctuations in the death-rate must be expected, but the mortality of 5·05 per cent. is still an extremely low mortality for a metropolitan hospital. The cases include successful operations of Cæsarian section, ovariotomy, lithotomy, amputations of thigh, etc., removal of large cancerous tumours, and all the ordinary medical and surgical cases which come under treatment in a London general hospital. Part of this success is due to the distinction of its medical staff, to the model character of the hospital, and to the devoted ladies who superintend the nursing. But a large part of the success is undoubtedly due to the fact that alcohol is practically disused. The visiting physicians and surgeons are in no way tied with regard to the use of alcohol, if they deem it desirable to

use it as a medicine. It is only stipulated that in the event of any such exceptional case, they fully report the matter to the Board. As a matter of fact, alcohol has only been used in one or two experimental cases, during these ten years, and in these cases without beneficial results. As an article of food and as a pharmaceutical vehicle, the use of alcohol is formally excluded from the hospital.

The table of all the cases of typhoid fever treated in the beds of the London Temperance Hospital to April 30, 1884, given *in extenso* pp. 212–215, shows six deaths among a total of 53 cases. All these cases have been treated without alcohol in any form. Twenty of the patients were registered as abstainers and 33 as non-abstainers. Of the six patients who died five were registered as non-abstainers and one as "abstainer six months." The mortality, therefore, has been almost entirely among the non-abstainers. From March 25, 1875, to April 30, 1884, there were admitted under the care of Dr. Edmunds 401 surgical cases of such severity as to require treatment in the beds of the hospital. In no one of these cases did Dr. Edmunds administer alcohol in any form. In these 401 surgical cases there were eight deaths, a mortality of two per cent.; 103 major operations were required and only three deaths occurred, a death-rate which is probably unrivalled for its lightness among such a series of hospital cases.

Summary of all the Cases of Typhoid Fever treated in the London Temperance Hospital to April 30, 1884 (10½ Years).

No.	Case Book No.	Date of admission.	Initials.	Age.	Sex.	Occupation.	Abstainer or not.	Physician in charge.	Date of discharge.	Result.	Remarks. (Alcohol has not been used in any case.)
1	12	22nd Oct., 1873	E. T.	28	M.	Painter	Abstainer	Dr. Ridge	27th Nov., 1873	Recovered	
2	67	17th April, 1874	S. D.	35	F.	House-keeper	Abstainer 6 years	Dr. Edmunds	15th May, 1874	,,	Usual course of symptoms. Excellent recovery.
3	81	15th May, 1874	A. B.	24	F.	Housewife	Non-abstainer	,,	31st July, 1874	,,	Severe case. Complicated with broncho-pneumonia.
4	113	12th Aug., 1874	W. J.	12	M.	At school	Abstainer 3 years	Dr. Ridge	12th Sept., 1874	,,	In very critical state when admitted. Temperature 104°.
5	158	1st Dec., 1874	A. A.	19	F.	Laundry-maid	Abstainer 10 years	Dr. Edmunds	14th Dec., 1874	,,	Ordinary case.
6	193	9th March, 1875	J. S.	24	F.	At home	Non-abstainer	,,	9th April, 1875	,,	
7	420	8th Dec., 1876	C. F.	23	M.	Grocer's assistant	,,	,,	27th Jan., 1877	,,	Admitted in extremely prostrate state. Symptoms indicative of severe typhoid. Serious congestion of both lungs. Severe intestinal hæmorrhage. Purulent stools. Fourteen evacuations during one night. Recovery rapid and complete.
8	481	12th June, 1877	M. A. A.	33	F.	Housewife	Abstainer 8 months	,,	3rd Sept., 1877	,,	
9	512	28th Sept., 1877	G. W.	22	M.	Hairdresser	Abstainer 12 years	Dr. Lee	24th Nov., 1877	,,	Severe case.
10	569	7th Feb., 1878	R. A.	19	M.	Porter	Abstainer 1 year	Dr. Edmunds	19th March, 1878	,,	Complicated with pneumonia.
11	618	9th Aug., 1878	D. T.	12	M.	Son of a labourer	Non-abstainer	Dr. Lee	29th Sept., 1878	,,	Extreme prostration. Bowels moved seventeen and eighteen times a day. Hæmorrhage from bowels. Highest temperature 104°·2. Good recovery.
12	888	19th July, 1880	J. P.	18	F.	General servant	,,	Dr. Edmunds	23rd Aug., 1880	,,	
13	892	2nd Aug., 1880	E. M.	33	F.	None	,,	,,	28th Aug., 1880	,,	Complicated with pneumonia.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1881	unexpected.
16	1138	26th Sept., 1881	W. T.	30	M.	Marble polisher	"	"	20th Oct., 1881	Died	Complicated with pneumonia and diphtheria.
17	1139	27th Sept., 1881	W. N.	30	M.	Builder	"	"	16th Nov., 1881	Recovered	
18	1172	7th Nov., 1881	E. B.	10	M.	Son of a bricklayer	Abstainer 3 years	Dr. Edmunds	24th Dec., 1881	"	
19	1206	14th Dec., 1881	W. J.	10	M.	Son of French polisher.	Life abstainer	Dr. Lee	22nd Jan., 1882	"	
20	1263	11th Feb., 1882	J. P.	15	M.	Type founder	Non-abstainer	Dr. Edmunds	20th March, 1882	"	Mild case.
21	1473	21st Sept., 1882	E. C.	40	F.	Housewife	Abstainer	Dr. Lee	22nd Dec., 1882	"	
22	1507	16th Oct., 1882	D. H.	22	M.	Carpenter	Non-abstainer	"	23rd Nov., 1882	"	Ordinary case with slight intestinal hæmorrhage.
23	1555	23rd Oct., 1882	G. N.	19	M.	Seaman	Abstainer 6 months	"	1st Nov., 1882	Died	Complicated with double pneumonia. Enlarged kidneys. Had recently been ill in Egypt and suffered much from hard usage. Post-mortem examination made.
24	1564	3rd Nov., 1882	E. R.	30	M.	Labourer	Non-abstainer	"	27th Nov., 1882	Recovered	
25	1580	16th Nov., 1882	J. C.	33	M.	Warehouse-man	"	"	7th Dec., 1882	"	
26	1584	18th Nov., 1882	F. H.	15	F.	Nurse	Abstainer	"	8th Jan., 1883	"	Mild case.
27	1602	4th Dec., 1882	E. A.	25	F.	Housewife	Non-abstainer	Dr. Edmunds	27th Jan., 1883	"	
28	1636	13th Jan., 1883	A. P.	15	F.	Factory girl	Life abstainer	Dr. Lee	13th June, 1883	"	Very delirious, and had a convulsive fit during night of January 15th.
29	1753	14th April, 1883	W. O.	15	M.	Machinist	Abstainer	"	3rd June, 1883	"	Complicated with double pneumonia. Troublesome delirium. Very severe case. Good recovery.
30	1899	4th Aug., 1883	A. M.	23	F.	Servant	Non-abstainer	"	22nd Nov., 1883	"	Severe case. Patient phthisical. Highest temperature 105°·2. Recovery slow but complete.
31	1924	21st Aug., 1883	H. K.	22	F.	"	"	"	4th Sept., 1883	Died	Suffering from an ovarian cyst. Profuse intestinal hæmorrhage.
32	1925	22nd Aug., 1883	L. A.	17	F.	"	"	"	20th Oct., 1883	Recovered	Ordinary case. Highest temperature 105°·2.

No.	Case Book No.	Date of admission.	Initials.	Age.	Sex.	Occupation.	Abstainer or not.	Physician in charge.	Date of discharge.	Result.	Remarks. (Alcohol has not been used in any case.)
33	2019	22nd Aug., 1883	T. A.	21	M.	Milkman	Non-abstainer	Dr. Lee	29th Oct., 1883	Recovered	Very severe case. Complicated with double pneumonia. Highest temperature 105°·2. Intestinal hæmorrhage. Active delirium.
34	1932	30th Aug., 1883	— H.	23	M.	Clerk	Life abstainer	,,	10th Oct., 1883	,,	Ordinary case. Highest temperature 104°·4.
35	1933	1st Sept., 1883	— O.	9	M.	Son of a carman	Non-abstainer	Dr. Edmunds	21st Oct., 1883	,,	Ordinary case. Highest temperature 105°.
36	1934	28th Aug., 1883	S. C.	10	M.	,,	Life abstainer	Dr. Lee	21st Oct., 1883	,,	Severe case. Complicated with pneumonia of right lung. Highest temperature 106°. Active delirium.
37	1937	24th Aug., 1883	R. W.	15	F.	Servant	Abstainer	Dr. Edmunds	3rd Oct., 1883	,,	Ordinary case. Highest temperature 104°·8.
38	1938	25th Aug., 1883	B. G.	18	F.	Teacher	,,	,,	3rd Oct., 1883	,,	Highest temperature 104°·4. About eleven evacuations per diem.
39	1939	2nd Sept., 1883	B. D.	20	F.	Milliner	,,	Dr. Lee	27th Oct., 1883	,,	Highest temperature 105°.
40	1952	8th Sept., 1883	L. T.	14	F.	Daughter of a porter	Non-abstainer	,,	14th Nov., 1883	,,	Highest temperature 105°.
41	1954	12th Sept., 1883	C. V.	32	M.	Painter	,,	,,	1st Nov., 1883	,,	Relapsed case. Admitted in prostrate condition. Highest temperature 103°·6. Frequent evacuations.
42	1960	19th Sept., 1883	— K.	35	F.	Housewife	,,	,,	10th Oct., 1883	Died	An old drinker. Had cirrhosis of liver, of which she died. After convalescence from typhoid. (Post-mortem examination made.)
43	2005	22nd Oct., 1883	E. V.	34	M.	Custom-house officer	,,	,,	19th Nov., 1883	Recovered	Relapsed case. Admitted in a prostrate condition. Patient exhibited marked physical signs of phthisis, but made a good recovery.
44	2014	27th Oct., 1883	A. F.	10	F.	Daughter of a railway checker	,,	,,	7th Nov., 1883	,,	Mild case.
45	2018	29th Oct., 1883	J. F.	20	M.	Labourer	,,	Dr. Edmunds	8th Nov., 1883	Died	Appeared moribund on admission. Profuse intestinal haemorrhage. Double [illegible]

		1883									for upwards of a week.
47	2038	7th Nov., 1883	A. H.	22	F.	Servant	,,	,,	5th Jan., 1884	,,	Complicated with acute bronchitis. Highest temperature 104°·6. Good recovery.
48	2051	12th Nov., 1883	C. B.	35	F.	Housewife	,,	,,	23rd Dec., 1883	,,	Phthisical patient. Cavities at both apices. Highest temperature 103°·4. Profuse evacuations.
49	2074	1st Dec., 1883	A. S.	11	F.	Daughter of a farrier	Abstainer	,,	20th Jan., 1884	,,	Highest temperature 105°·2. Pulse 124. As many as twelve evacuations per diem.
50	2088	3rd Dec., 1883	W. H.	6	M.	Son of a carman	Non-abstainer	,,	23rd Dec., 1883	,,	Mild case.
51	2094	8th Dec., 1883	F. C.	24	F.	Boot trade	,,	Dr. Edmunds	15th Dec., 1883	Died	Admitted with a temperature of 105°. Pulse 120. Complicated with double pneumonia. Had miscarriage a week before admission. Died with temperature of 107°. Ought not to have been removed from home. Had been ill for upwards of fourteen days. (Post-mortem examination made.)
52	2186	8th Feb., 1884	W. H.	23	M.	Porter at Gilbey's	,,	Dr. Lee	13th April, 1884	Recovered	Admitted on 16th day of his illness with well-marked typhoid. Temperature, 104°·8. Pulse 140. Respirations 40. Symptoms of double pneumonia soon appeared, and the patient was in a most dangerous state and delirious for many days. Made a good recovery.
53	2204	27th Feb., 1884	A. B.	12	F.	Daughter of a travelling showman	,,	Dr. Edmunds	9th April, 1884	,,	Admitted on the 7th day of her illness. An ordinary case. Highest temperature, 103°·8. Pulse, 106. Made a rapid and complete recovery.

Dr. Edmunds's statement regarding the character of the non-alcoholic treatment in the London Temperance Hospital.

It will be seen that the mortality of this long series of cases is very much less than usual. As to his own methods of treatment, Dr. Edmunds writes :—

"1. I have prescribed no alcohol, and I have a strong conviction that in typhoid fever, *as a general rule*, alcohol is not only not necessary, but that it is actually injurious. Its effect, when given in large doses, of lowering the temperature is obtained more safely and more easily by tepid sponging, the wet pack, simple diaphoretics—such as the acetate of ammonia, moderate doses of citrate of potash. On the other hand, reduction of temperature, when obtained by the large doses of alcohol which are necessary, is followed by increased distaste for food, less perfect digestion, and greater intestinal suffering. The use of alcohol, also, in my opinion, predisposes to the occurrence both of intestinal hæmorrhage and of that fatal complication—perforation of the intestine.

"2. I never feed my patients 'solely with cold milk.' I always use more or less of well-boiled gruel, made from fine clean oatmeal; and, generally, I use a mixture of two parts of thin gruel and one part of fresh new milk; the milk being added direct to the gruel as soon as this is completely cooked, and thus becoming scalded but not boiled.

"3. In cases of hæmorrhage from the intestine, I never select lead, but always turpentine, in thirty-drop doses given upon loaf sugar, or shaken up in milk, and repeated every few hours.

"4. In troublesome diarrhœa I give opium only as an exceptional remedy. Covering the abdomen with a hot wet flannel and waterproof covering seems to me to relieve the pain and tenderness better than the administration of opium.

"5. I always prescribe some daily dose of fresh fruit, such as grape-juice, or fresh lemon-juice in sweetened barley-water as a drink to be taken at the patient's discretion. Some such fresh vegetable element is much longed for by the fever patient, and can generally be so administered as not to increase the diarrhœa. The hæmorrhage, which so frequently occurs in typhoid, I believe to be often due to having overlooked this necessity for fresh vegetable juices. In all long illnesses, if fresh

vegetable juices are not regularly administered, there arises a purpurous tendency which predisposes to irrepressible hæmorrhage, and to extension of ulceration.

"No alcohol has been administered, either dietetically, pharmaceutically, or medicinally, in any one of the cases of typhoid fever admitted to the Temperance Hospital, and my medical colleagues and myself are perfectly satisfied with our results."*

The effects of the use of alcohol on mothers and their offspring a question of paramount importance.

§ 59. A consideration of paramount importance in connection with the question of alcohol as a medicine, is that of its effects on mothers and their offspring during pregnancy and lactation. For England, indeed, it is a question of the gravest moment to her future independence. Owing chiefly to the fatal "Grocers' Licences Act," there is probably more drinking among the women of England to-day than among the women of any other civilized country. With the growth of this evil in secret, until its dimensions have stripped it of secresy, there has grown up a notion fostering the evil, and in turn fostered by it, that intoxicating liquors are especially beneficial to women during pregnancy and lactation; and I wish, therefore, in this chapter to draw particular attention to this part of the subject.

In chapter viii. it was pointed out that certain and terrible consequences befell the children and children's children of transgressing parents, and that the shocking results of alcoholic heredity were doubly certain when the mother was the drinker.

But as nothing can be of more importance than the proper beginning of life, and as it is proven that nothing artificial does it greater general harm than alcohol, I quote here important medical testimony on this point dating from the opening of the present century.

Dr. Thomas Trotter on this point.

Dr. Thomas Trotter, in his *Essay on Drunkenness* (London, 1804), says, "Drink containing ardent spirits, such as wine, punch, caudle, ale, porter, must impregnate the milk, and thus the digestive organs of the babe must be quickly injured. These must suffer in proportion to

* "At a meeting of the Manchester and Salford Temperance Union, Dr. Meacham said he was medical officer of health for the largest district in England, and no fewer than 49,000 patients had been under his care. For fourteen years he had not prescribed alcohol."—*Temperance Review*, March 6, 1884.

the delicacy of their texture, and the diseases which flow from this source are certainly not uncommon . . . it is well known that nurses are in the practice of giving spirits in the form of punch to young children to make them sleep. . . . Such children are known to be dull, drowsy, and stupid, bloated in the countenance, with eyes inflamed, subject to sickness at stomach, costive and pot-bellied. The body is often covered with eruptions, and slight scratches are disposed to ulcerate."

Sir Anthony Carlisle on the same.

In 1814 Sir Anthony Carlisle said, "Of all errors in the employment of fermented liquors, that of giving them *to children* seems to be fraught with the worst consequences. The next in the order of mischief is their employment *by nurses*, and which I suspect to be a common occasion of dropsy of the brain in young infants. I doubt much whether the future *moral habits*, the temper and intellectual propensities, are not greatly influenced by the early effects of fermented liquors upon the brain and sensorial organs."

Dr. Rösch on the evils of alcohol during lactation.

In *The Abuse of Intoxicating Liquors* (Tübingen, 1839), Dr. Rösch, after condemning the custom of giving wine to women in childbirth, says, "Many diseases of children owe their origin to the mother's use of spirituous liquors while nursing."

Dr. Grindrod on the same.

Dr. Grindrod (*Bacchus*, London, 1839) says—

"Alcoholic liquors propel the organs of nutrition and lactation to increased action, but it is an action unnatural and injurious in its effects. The organs employed in these important functions are regulated by laws on the due performance of which depends the fulfilment of Nature's intentions. Thus, for example, nutritious food forms the only natural stimulant for the healthy action of the stomach, and is the sole fountain of pure blood. Pure milk, which is essential to the health of the child, depends upon proper digestion. If the functions of the stomach act imperfectly, the secretion of milk must, as a necessary consequence, be defective. Hence whatever deranges the functions of the stomach interferes with the healthy lactation. The influence of alcoholic liquors on lactation may be considered in several points of view. In the first place they interfere with healthy digestion. In this way the *quality* of the milk secreted becomes deteriorated in

exact proportion to the amount of injury inflicted on the organs of nutrition. In the second place they influence the quantity of the secretion. The vessels employed in this function, urged on by an alien impulse, produce an unusual and enlarged supply. It does not follow, however, that an increase in the *amount* of secretion is attended with a proportionate increase in the *quantum of nutriment*. The contrary is often the case. Milk may be secreted in large quantities ill calculated to supply the ends of nature. Hence numbers of puny emaciated children, the offspring of parents who indulge in strong drink."

Dr. E. G. Figg on the effects alcohol produces during pregnancy and lactation.

In his lectures on *The Physiological Operation of Alcohol* (1862), Dr. E. G. Figg, in speaking of the infant before birth and during lactation, says, "No one conversant with the principle of fœtal nutrition will feel disposed to controvert the opinion that the *placenta* is not only a lung to the unborn infant, but a digestive system, performing the duty of the latter, by assuming at once the office of the stomach, an excreting intestine, a mesenteric gland, and an assimilative organ. Independently of imparting oxygen to the fœtal blood in minute quantities, not adequate to its perfect arterialization, and taking up sustenance for it, the *placenta* removes impurities returned from the fœtal body; not as the stomach does in the undigested material, nor as chyle, like the thoracic duct, but in the maturely elaborated substance, transferred by exosmose in a manner incomprehensible, inasmuch as the membranous parieties of the placental cells appear to the microscope impermeable to matter in a form so gross as atoms of fibrine.

"Whatever doubt may exist as to the *modus operandi*, there is none whatever as to the fact; of which any one may convince himself by examination of the surface of every third or fourth placenta delivered, which will be found coated with ossific deposits of carbonate and phosphate of lime, which substances being in the fœtal department of that organ, could have reached it only through the maternal cell-walls. The cows in the cotton districts of England, when fed on the refuse of madder and other vegetable dye stuffs, invariably stain the bones of the calf *ante partum*. Experience, however, does not favour the idea that the placenta exercises a selective discretion in

appropriating that which may be ultimately available in the infant frame, for the placenta receives and circulates any poison or virus that may be presented in the maternal system. An infant *in utero* is often affected with *variola*, contemporaneously or immediately consecutive to the course of the disease in the mother. I have attended a patient in Asiatic cholera, and a week later delivered her of a dead fœtus, in which the characteristic slate colour infallibly indicated the cause of dissolution.

"These facts, even in a theoretical aspect, are quite sufficient to establish the rationality of the proposition that the alcohol swallowed by the pregnant mother must act injuriously on the child, not merely indirectly, by rendering the material transferred through the placenta unfit for incorporation with the fœtal tissues, but directly, by affecting the nervous system of the fœtus, just as it does that of the mother.

"I may, in addition, appeal to the stethoscopic examination of two pregnant women. During the progress of intoxication, though of course not synchronous, I found that whenever the mother's pulse was excited, so was the infant's heart. When the pulse of the parent, in a more advanced stage, became full and round, the beat of the heart in the child assumed a similar character: and when feeble and compressible in collapse, the heart of the fœtus was scarcely audible. What inference could be drawn from the circumstances, but that when the mother got drunk, the child got drunk; when the mother became insensible, the child became insensible; and when the mother was collapsed, the child was so also? Every midwife is acquainted with the effect produced on the majority of healthy *fœti*, if the cold hand be suddenly placed over the maternal hypogastric region. The infant, influenced by a kind of instinctive consciousness, springs from its position, imparting a sensible impulse to the practitioner's hand through the uterine parieties and intervening muscles, thus yielding as good a test of the *viable* condition of the child as the stethoscope could give. In one of the women I never could excite these movements during her drinking fits, though in the other eminently present in the incipient stage of intoxication, but not producible after. I attended another, who

dated the death of her infant from an act of excess. The child never moved subsequently to her intoxication, and the premonitory symptoms of labour occurred in eight days.

"In nursing mothers we have the same routine of manifestations, with a very slight variation in the preliminary circumstances. The breast here supersedes the *placenta* as the paramount organ in Nature's regards. The nutritious extracts from the food replenish in the first instance this repository of the infant's support, the maternal economy (at this crisis a less important consideration) receiving only the surplus contributions from the digestive system. So thoroughly insufficient is the mother's alcoholized system for the double task of maintaining herself and progeny, that we are warranted in placing the prosperity of the infant in juxtaposition with that of the parent. If the child becomes robust the mother becomes emaciated; *vice versâ*, a robust, plethoric mother almost always insures a cadaverous, debilitated infant. In asserting that the essence of the food passes at once to the breast, without adoption by the maternal tissues, I advance a theory consistent with all analogy. If a cow be fed on turnips, she imparts the peculiar odour of that vegetable to her milk. The action of a drastic purgative taken by the mother is established in the infant at the breast. Through the same medium the dysentery in the mother is transferred to her child, commencing in *aphthous* ulceration of the mouth, extending by continuity through the whole intestinal canal, and resulting in the characteristic discharges. So I have seen the disease arrested in both by the astringent principle of the opiates administered to the parent, acting simultaneously and keeping the infant in a somnolent condition. In this country, among the lower classes, a glass of spirit *taken by the mother* is a popular and often effectual remedy for the *tormina* (gripes, colic) of an infant. We can guess at the quantity which finds its way to the breasts by the *effect*. If the child be fed from a cup, a large teaspoonful of spirit is often added to a single meal, even when the recipient is not more than a week old, that quantity being barely sufficient for the purpose. This fact affords at least an approximate standard for calculation as to the proportion of alcohol

in each glass of spirit which reached the infant after consumption by the mother; and is, therefore, an excellent rule for ascertaining the quantity passed through the infant's system when the mother is habitually dissipated, or perhaps erroneously attempts to relieve the mental depression or corporeal exhaustion incidental to lactation by an occasional glass. My acknowledgments are due to Dr. Mackenzie, for his kindness in analyzing to the best of his ability two specimens of milk sent by me for that purpose, which were obtained from nursing mothers, of nearly the same age, of the same social rank, and three months after parturition. One was a temperate woman in robust health, and substantially fed, whose milk constituted the only sustenance of her child. The other was an emaciated drinker whose infant presented a miniature of herself.

Milk of temperate mother.		Milk of drinking mother.	
Salts	8·50	Salts	5·50
Casein	3·0	Casein	2·0
Oil	7·50	Oil	6·5
Water	81·0	Water	84·0
		Alcohol	2·0
	100·0		100·0

Dr. E. Smith on the use of alcohol during lactation.

In his *Practical Dietary* (London, 1865), Dr. Edward Smith gives like testimony in these words: "Alcohols are largely used by many persons in the belief that they support the system and maintain the supply of milk for the infant; but I am convinced that this is a *serious* error, and *is not an unfrequent cause of fits and emaciation in the child.*"

Dr. James Edmunds on the diet for nursing mothers.

In his paper on *Alcoholic Drinks as an Article of Diet for Nursing Mothers* (*Medical Temperance Journal*, July, 1870), Dr. Edmunds, then senior physician to the British Lying-in Hospital, thus puts this matter:—"The mastication, digestion, and primary assimilation of the sucking infant's food is thrown upon the mother's organs; but the tissues of the child are nourished precisely as are the tissues of the mother, and a nursing mother requires simply to digest a larger supply of wholesome and appropriate food. As a matter of course mothers with imperfect teeth or weak stomachs cannot perform the

digestion of extra food for the infant so well as those mothers who have an abundance of reserve power in their digestive apparatus, and with such patients the question arises, how are they to make up for the deficiency which they soon experience in the supply of milk? They should assist their digestive apparatus as much as possible by securing an abundance of suitable and nutritious food, prepared in the best way and as is most digestible, while they should lessen the demands of their own system by the avoidance of bodily fatigue and mental excitement. These means, aided by that philosophical hygiene which is at all times essential to the preservation of pure and perfect health, will enable them to supply a maximum quantity of pure and wholesome milk; further calls by the child require proper artificial food. Unfortunately such advice fails to satisfy many anxious mothers, who refuse to admit or believe that they are less robust or less capable than other ladies of their acquaintance, and such mothers fall easy victims to circulars vaunting the nourishing properties of 'Hoare's Stout,' 'Tanqueray's Gin,' or Gilbey's 'strengthening Port,' circulars which are always backed up by the example and advice of lady friends, who themselves have acquired the habit of using these liquors, and who view as a reproach to themselves the practice of any other lady who may not keep them in countenance as the perfection of all moral and physical propriety. It is a matter of common observation that a glass of spirit taken at bedtime by a nursing mother, not merely increases the flow of milk during the night, but causes the child to sleep heavily. Under these circumstances the spirit acts, not as a purgative, nor as a diuretic, nor as a diaphoretic, nor does much of it pass off by the lungs, but it acts as a lactagogue, because the breasts are then in a state of great activity, and form the readiest channel through which the mother's system can eliminate the alcohol. In order to effect that elimination the breasts have to discharge a profuser quantity of milk; but the increased quantity of milk is produced by a mere addition of alcohol and water, or it is produced by impoverishing and straining the system of the mother. In either case the poisonous influence of the alcohol is manifested in narcotizing the child, and it cannot need much reflection

to show that children ought not to have alcohol filtered into them as receptacles for matters which the mother's system finds it necessary to eliminate. Probably nothing could be worse than to have the very fabric of the child's tissues laid down from alcoholized blood."

Dr. Edmunds on the special effects of beer-drinking during lactation.

Of the effects of beer-drinking, he says, "I have observed the following facts:—The mothers frequently make flesh, and even become corpulent; often, however, at the same time they get pale, and where they are not constitutionally robust in fibre they become inactive, short-breathed, coarse-complexioned, nervous, and irritable, and suffer from weakness of the heart and a long train of symptoms which are more or less severe according to the constitution of the mother and the quantity of alcohol she imbibes. The young mother prematurely loses the bloom and beauty of youth. Often it is quite startling to meet some lady, who during an interval of two years has been transformed from a sprightly and charming young woman into an uninteresting coarse-looking matron. She has nursed her first infant for twelve months. With a pure and rational diet, she would simply have acquired a more dignified and womanly bearing, with a robuster gentleness of manner; but a liberal supply of 'nourishing' stout, a glass of port at luncheon, and a little gin-and-water at bedtime, one after the other were adopted, and imbibed regularly, in order to supply her infant with 'milk.' The presence of a nerveless apathy, or unintelligent irritability, afterwards proved that a liberal supply of 'stimulants' was required to support her strength, and, although she ceased nursing, her own sensations convinced her of the necessity of continuing them. The outward and visible change is but an exponent of the degenerations and diseases which are taking root within. If there be a predisposition to insanity or consumption, these diseases are developed very rapidly, or they are brought on where proper management might altogether have tided over those periods of life at which the predisposition is prone to become provoked into actual disease.

"Infants nursed by mothers who drink much beer also become fatter than usual, and to an untrained eye sometimes appear as 'magnificent children.' But the fatness of such children is not a recommendation to the more know-

ing observer; they are exceedingly prone to die of inflammation of the chest (bronchitis) after a few days' illness from an ordinary cold. They die very much more frequently than other children of convulsions and diarrhœa while cutting their teeth, and they are very liable to die of scrofulous inflammation of the membranes of the brain, commonly called 'water on the brain,' while their childhood often presents a painful contrast—in the way of crooked legs and stunted or ill-shapen figure—to the 'magnificent and promising appearance of their infancy.'"

Mr. Branthwaite on child mortality from the use of ale and stout during lactation.

And Mr. Harrison Branthwaite, in his first annual report on *The Sanitary Condition of Willesden* (1882), speaks feelingly of the increase in child-mortality, and deplores "the pernicious habit of drinking large quantities of ale or stout by nursing mothers, under the idea that they thereby increase and improve the secretion of milk, whereas they are in reality deteriorating the quality of that upon which the infant must depend for health and life."

Dr. J. C. Reid's warning against alcoholic prescription.

On the 8th of January, 1881, Dr. J. C. Reid wrote to the *British Medical Journal:* "Truly he is a happy man—a happy doctor I should say—who can honestly affirm that he never, by his alcoholic prescriptions, made a drunkard. For myself, in my earlier days I was a firm believer in the many supposed virtues of alcoholic compounds. It is about fourteen years ago that the scales were removed from my eyes by the stern reality of facts, and my sole regret now is that I held out so long against evidence of the most startling kind.

"Many years ago, when I asked a noted drunkard to sign the pledge, she replied bitterly that I was the last man who ought to give her such advice. For it was my own father who had taught her to love the drink. He had prescribed whiskey for her in an illness, and she had learned to love it. I succeeded with her for fifteen months, but after that she fell into the old miserable habit."

CHAPTER X.

SOCIAL RESULTS, OR THE GENERAL EFFECTS ON SOCIETY CAUSED BY ALCOHOL.

"Not one man in a thousand dies a natural death, and most diseases have their rise from intemperance."—LORD BACON.

"People dread cholera, but brandy is a far worse plague."—BALZAC.

"If alcohol were unknown, half the sin and three quarters of the poverty and unhappiness would disappear from the world."—EDMUND A. PARKES.

"Short of drunkenness (that is, in those effects of it which stop short of drunkenness), I should say, from my experience, that alcohol is the most destructive agent we are aware of in this country."—SIR WILLIAM GULL before the Lords' Select Committee of inquiry into prevalence of intemperance, 1877.

§ 60. IN the preceding chapters I have endeavoured to point out the multifarious deep-reaching evils which alcohol entails on the *individual* who indulges in its use. In this chapter I shall try to show how generally these effects have been produced; *i.e.*, how many persons are suffering from the habit of drink, and in what way and degree it has acted on *society* and the State, especially in regard to this country (England).

General value of statistics.

To this end, which I can only hope to reach approximately, I must make use of statistics—both official and private—which throw light on these points. And the enormous amount of them available on this matter, together with their scope; the almost impossibility of making any brief, and at the same time clear statistical statement; and the latitude of interpretation which almost all statistics afford, has made this portion of the work very difficult.

Modern Government statistics are definite, and convey a definite meaning, but their purport may be modifiable by a hundred different circumstances understood and allowed for by few, excepting trained statisticians. Notwithstanding this, I cannot agree with those who deem that to the general public, statistics are not worth their cost in paper and ink.

All statistics have a great worth negatively at least; that is, as showing that the minimum of a national condition of prosperity or decline has been fairly ascertained. Non-personal data, or such as relate to the gross amount of produce, manufactures, food, drink, their cost, etc., have even a positive value; but those relating to persons —excepting births, deaths, marriages, and the like—all which involve self-interests, whether for concealing income, escaping taxation, or avoiding uncompensated labour or expenditure of time in any way, or for escaping the law, etc., etc., have only a comparatively negative value.

Statistics, for example, regarding convictions for drunkenness have only the value of showing how many people the repressive force of the State has found it necessary to punish for having deliberately entered into a personally irresponsible condition. But this would afford not even relatively correct information as to the existing amount of drunkenness. In the first place, intoxicated people, if not incapable, or deserted, or dangerously violent, are seldom arrested. Again, no police officer ventures into private homes merely because there are drunken people there; he does not interfere with any peaceful transfer of a drunken person from the place of drinking to his home; and any one who will take the trouble of looking into public-houses, especially early in the morning and late at night, can form some idea of the inadequacy of the police returns on drunkenness as a real indication of the condition of the people on this point.*

* In giving the aggregates of the *Black List* of crimes due to drink in England during the Christmas week of 1883, and the first week of 1884, as follows :—

26 perilous accidents through drink,
13 robberies through drink,
5 cases of drunken insanity,
63 drunken outrages and violent assaults,

Again, many inebriates escape from arrest, or if arrested are not counted in with the convicted, being saved by intercession, personal influence, position,* birth, etc.

If thoughtful analysis of the ruin which alcohol works for the individual, strengthened by the continual spectacle of its ghastly effects which our homes and our streets afford—if these do not awaken a sense of the paramount duty of each and all to banish alcohol for ever from the lips of mankind, then no statistics, however terrible, conclusive and undeniable, could be of avail.

Inconsistency of the attitude of Parliament toward the drink-question.

§ 61. With some notable individual exceptions, Parliament does not yet seem to be impressed with its responsibility in the battle against drink; for although appalling statistics, steadily increasing in dimensions, of crimes and insanity, unanimously admitted to be the results of drink, are annually laid before its members, yet petitions from towns and whole counties signed by overwhelming majorities appeal in vain to Parliament to be allowed to banish the temptation of drink from their midst, or that the number of places for the sale of alcoholic drinks may be limited.

And yet as long ago as 1819–20, the British Parlia-

20 drunken stabbings, cuttings, and woundings,
5 cases of drunken cruelty to children,
74 assaults on women through drink,
13 cases of juvenile intoxication,
70 drunken assaults on constables,
94 premature, sudden, or violent deaths through drink,
18 cases of suicide attempted through drink,
15 cases of drunken suicide completed, and
12 drunken manslaughters or murders,

the *Alliance News* (January 26, 1884) says, "And besides this, it must be borne in mind that the reporters for the press are by no means always disposed or enabled to record the part which strong drink has manifestly had in the cases which they chronicle. A Scottish correspondent, in sending in his contributions to the *Black List*, writes that 'There were nearly as many cases which we might have legitimately inferred were equally due to drink, but as liquor was not directly charged with the evil we had to do without the record.' No doubt a similar remark might have been made by all our coadjutors."

* "A Plymouth publican was yesterday charged with having drunken women on his premises after closing time. He proved that they were lodgers, and the charge was dismissed."—*Echo* (February 1, 1884).

mentary Committee on Drink stated that "public-houses can only be regarded as *Schools of Iniquity*."

The moral inertia of Parliament is conspicuous in the continued supply of alcoholic drinks to workhouse inmates, with the sanction of the Local Government Board.

The Canterbury Convocations, in their report several years ago on drink, said—

"It appears, indeed, that at least seventy-five per cent. of the occupants of our workhouses, and a large proportion of those receiving outdoor relief, have become pensioners on the public directly or indirectly through drunkenness."

This inertia is the more inexplicable when we remember that it must be patent to legislators and governments that the desperate spectre for years threatening Europe with the assassination of her rulers and the overthrow of the established order of things, is the alcohol-goaded despair, not of stolid but of naturally earnest minds.*

They cannot be blind to the fact that the fitfulness and the unintelligence of popular favour, the irrationality and perversion of public opinion, as well as the dogged adherence to a bad measure once advocated—as if the mind groping and fumbling in a dark chamber, having grasped something, hangs to it without any thought of its meaning or use—are largely due to the general mental derangement which general indulgence in alcohol induces.

Why do so many of the noblest thinkers of our time—those who have looked seriously into the problems which modern civilization presents—why do they despair of the future of the race? Why is the general turn of mind in our age stoically pessimistic or cynically materialistic?

Why indeed? unless it is that the later generations of men, inheritors and further developers of the insidious poison of alcohol, are becoming in mind, as in body, dessicated, life-sucked, so that the whole civilized race is not only crumbling physically † (however imperceptibly to the

* Says John Disney, in *Ancient Laws against Immorality* (Cambridge, 1729) :—

"The vice of intemperance debases the genius and spirit of a nation; indisposes them to noble designs and generous actions; and either softens them to an effeminate indolence for the public welfare, or fires them to seditious tumults."

† Sir Henry Thompson, writing (March 15, 1873) to the late Archbishop of Canterbury (Dr. Archibald Campbell Tait), claimed

careless and indifferent), but seems to be dwindling morally into two more or less interchangeable but distinct types; the one not believing in the verity of God or the faith of man, without hope and without emotion—existing, indeed, only in a narrow line of cynical intellectual activity; the other, alternating between weakened faith and craven doubt, tossed by dark passions, temptations, and furies, not the least of which are momentary spiritual exaltations, mocked by and toppling over in swiftly succeeding debility and despair.

Both these types wear a deceptively fair exterior. We often see magnificent boughs and beautiful foliage on trees whose trunks are but hollow crusts, worm-eaten from core to rim. For fruit, or fuel, or for weathering the storm such a tree is naught, but yet the specious trunk manages to hold up and flaunt the fair foliage!

§ 62. Every one knows that abstinence is the exception, and drinking—whether moderate or excessive—the rule. And those who, bearing this in mind, have attentively read the preceding pages can *feel* what the results must be, far more adequately than the most eloquent pen could portray them, and will not find it difficult to credit that almost the whole state machinery of repression and punishment of crime, the whole army of police, detectives, judges, jailers, and hangmen, and the vast misery and expense of jails and lunatic asylums—yes, the asylums for idiots and the defective classes—might be done away with if—oh! what a mighty *if!*—people would not touch alcoholic liquors.

Various weighty opinions on destructive effects of alcohol upon society. Buffon. H. W. Beecher.

In practical testimony to this truth I may cite the following authorities:—

"Drink alone destroys—ruins—more people than all the other plagues together, which afflict humanity."—Buffon's *Discourse on Nature* (1765).

"Every year I live increases my conviction that the use of intoxicating drinks is a greater destroying force to life and virtue than all other physical evils combined."—H. W. Beecher to Young Men's Christian Association, New York (1862).

that drinking "tends to deteriorate the race . . . and disqualifies it for advance."

The Times.

"The use of strong drink produces more idleness, crime, disease, want, and misery than all other causes put together."—*Times* (January 19, 1863).

Dr. Germain Marty.

"After running over the statistics of death from drink published in the various countries, after attending for some years the clinique of the great Parisian hospitals, after consulting the registry of cases admitted to 'homes for strangers,' one becomes perfectly convinced that alcoholic poisoning is a more murderous plague, perhaps, than the great epidemics which at different epochs have devastated humanity. The pest, the cholera, the yellow fever, break out suddenly and decimate a village, a province, a whole country, but their passage is transitory in essence. *Alcoholism takes no holiday.*"—Dr. Germain Marty (*Medical Thesis*, Paris, December 24, 1872).

W. E. Gladstone.

"It has been said that greater calamities are inflicted on mankind by intemperance than by the three great historical scourges, war, pestilence, and famine. This is true for us, and it is the measure of our discredit and disgrace."—W. E. Gladstone (speech in House of Commons, March 5, 1880).

Opinions of the judges of the United Kingdom.

Who can speak more authoritatively, or with more impartiality, concerning the relations between drink and crime, than the judges of Great Britain?* And what do they say? Let us see.

M.O'Shaughnessy.

"I have been thirty years chairman of quarter sessions in several counties in Ireland. I have, perhaps, presided at more criminal trials than most men living, and I can truly say that I have had scarcely a case before me with reference to the class of offences known as against the person, that was not the consequence of drunkenness."—Mr. M. O'Shaughnessy, Q.C., Chairman of Quarter Sessions, Co. Clare.

Mr. Justice Grove.

"Men go into public-houses respectable, and come out felons."—Mr. Justice Grove.

Mr. Justice Fitzgerald.

"The crying and besetting crime of intemperance is a crime leading to all other crimes; a crime which you may very well say leads to nineteen-twentieths of the crimes of this country."—Mr. Justice Fitzgerald, Dublin Assizes, 1878.

* See opening pages of chap. viii.

Baron Dowse.

"If our people were more sober I think crime would almost entirely disappear from our midst."—Baron Dowse, at Wicklow, 1878.

Again, in charging the jury in the Dublin Commission Court, November, 1881, the Baron said he "found that drink was at the bottom of almost every crime committed in Dublin. *Even in cases that had no apparent connection with drink at all, if closely investigated, as he himself had done on many occasions, they would be found to have their origin in drink.*"

Stipendiary magistrate of Liverpool.

The Bench of England confirms the Bench of Ireland. In 1878 the stipendiary magistrate of Liverpool said—

"The moving cause of crimes of violence and disorder in our midst is drunkenness. We may set down three-fourths, I think nine-tenths of them, as arising from drunkenness."

Lord Chief Justice Coleridge.

In 1881 Lord Chief Justice Coleridge stated from the bench of the Supreme Court, that "Judges were weary with calling attention to drink as the principal cause of crime, but he could not refrain from saying that if they could make England sober they would shut up nine-tenths of the prisons."

Mr. Justice Denman.

In his charge at the Surrey Assizes, in August, 1882, Mr. Justice Denman said—

"I don't know, in enforcing the considerations which are placed before the judges as a part of their duty in the proclamation against vice and immorality which has just been read, that any judge can better discharge his duty than by again and again calling the attention of the gentry of the country, as well as inhabitants generally, to this fact, that the great bulk—I might almost say the whole—of the offences of violence which take place in the counties of this land are directly ascribable to the habit of drinking."

Baron Huddleston.

In the same month and year Baron Huddleston is reported to have said to the grand jury at Swansea that—

"Of the forty-four cases down on the calendar, he found almost all traceable, directly or indirectly, to the detestable habit of drinking. Two hundred years ago, Sir Matthew Hale, one of the most eminent judges that ever adorned the English bench, declared that twenty years of observation taught him that the original cause of most of the

Sir Matthew Hale.

enormities committed by criminals was drink. Four out of every five of them were the issue and product of drinking in taverns and alehouses. Baron Huddleston feared what was true then was true now, and that we have improved very little, if at all."

Mr. Justice Hawkins.

At the Chester Spring Assizes, on the 13th of April, 1883, Mr. Justice Hawkins, in charging the grand jury, said that—

"Although, numerically, the calendar was light, yet there were in it charges recorded against several persons of most serious offences. After referring to other cases, his lordship touched upon the attempted murder of a child by its mother by throwing it upon the fire, then pouring scalding water upon it. The mother was under the influence of drink, and it was almost always the case, according to his experience, that drink was at the root of crime. Nine out of every ten crimes of violence that had come before him were in one way or another attributable to drink."

Again, on the 16th of July, 1883, Mr. Justice Hawkins is reported to have said, in charging the grand jury at the opening of the Durham Assizes, that he—

"Had had considerable experience in courts of law, and *every day he lived the more firmly did he come to the conclusion that the root of all crime was drink.* It affected people of all ages and both sexes—the middle-aged, the young, the father, the son, the husband, and the wife. It was drink which was the incentive to crimes of dishonesty; a man stole in order that he might provide himself with the means of getting drink. It was drink which caused homes to be impoverished, and they could trace to its source the cause of misery which was to be found in many a cottage home which had been denuded of all the common necessities of life. *He believed that nine-tenths of the crime of this country, and certainly of the county of Durham, was engendered within public-houses.** When he came to that conclusion he thought it was his duty to enjoin upon the magistrates who had the power to check in some respect the terrible ravages of drink, to do their utmost to suppress it with all the power and authority with which the law invested them. The county of

* See opening pages of chap. viii.

Durham was the one county in all England where crime was most prevalent."

Mr. William Hoyle's drink statistics.

§ 63. The statistics quoted below are principally taken from various parts of the work of the indefatigable and admittedly the best statistician on the subject of drink —Mr. William Hoyle.

Commenting, in a leading article of great ability, on Mr. Hoyle's statistics, the *Times* (March 29, 1881) says, "Drinking baffles us, confounds us, shames us, and mocks at us at every point. It outwits alike the teacher, the man of business, the patriot, and the legislator. Every other institution flounders in hopeless difficulties; the public-house holds its triumphant course. The administrators of public and private charity are told that alms and oblations go with rates, doles, and pensions to the all-absorbing bar of the public-house."

Estimating roughly in round numbers, so as to leave more room for a comparative computation of vast numbers, we find that the average of the gross total of the national income during the last ten years (ending in 1881) was £850,000,000 a year. According to Hoyle, the direct average expenditure for drink annually, during the same time exceeded £136,000,000, and he estimates that annually £138,000,000 were indirectly spent or lost through drink —a total drinking expenditure of £274,000,000.

"Deducting, say, £54,000,000 from this sum for revenue," says Hoyle, "and for what some persons might consider the needful use of these drinks in medicine or otherwise, it still leaves a sum of £220,000,000 as the annual economic loss to the nation in consequence of the drinking customs of our population."

The Rev. Dr. Dawson Burns on the expenditure of the British Isles annually in drink as compared with other expenditure.

The Rev. Dr. Dawson Burns, in *Christendom and the Drink Curse* (London, 1875), makes this succinct summary of the comparative loss to the nation annually occasioned by drink:—"The British people annually expend on intoxicating liquors a sum of above a hundred and thirty millions sterling, the great bulk of it coming from the pockets of men and women who would be seriously affronted if any doubt were cast upon their religious sincerity. This sum is sixty millions in excess of the national revenue. It is one-sixth of the National Debt. It is one-fifth the value of all the railway property of the United Kingdom. It is

equal to one-fourth of the whole income of the wage-receiving classes, and one-eighth of the income of all classes united. It is equal to a yearly expenditure of £4 per head, and of £22 per family, in the United Kingdom."

Mr. Stephen Bourne on the same.

In a paper read before the Statistical Society of London (April, 1880), Mr. Stephen Bourne, a noted statistician, arrived at similar results to Mr. Hoyle's, but from an opposite point of view.

Mr. Hoyle estimates the harm done from computing the pecuniary loss; Mr. Bourne computes the pecuniary loss from the harm done. The *National Temperance League Annual* (1883) gives the following summary of Mr. Bourne's paper:—

"Mr. Bourne estimates that of the people of this country about 10½ millions are 'producers;' that of these '65 or 70 per cent. are wholly employed in providing food, drink, and other necessaries of life; and that it is only the remainder (three millions and a half) who are available for the production of luxuries, and the accumulation of wealth.' He further estimates that the producing power of 1,097,625 persons is wholly absorbed by the liquor traffic; and that 884,000 who might be employed as producers of wealth, are rendered economically useless by the damage done by drink. The latter number being made up as follows:—

'By deaths, adult and infantile	120,000
„ sickness of producers	150,000
„ „ administrators	185,000
„ pauperism	200,000
„ crime	88,000
„ professional and other service ...	50,000
„ revenue officials	6,000
„ army, navy, and merchant service ...	85,000
	884,000'

"If there was no alcohol to be produced or consumed there might be two millions of producers, or an addition of 60 per cent. to our power of producing articles other than those of daily use for stores. That is, as two millions constitute about a fifth of the total number of producers, the drink traffic absorbs about one-fifth of the productive power of the nation. And the total income of the nation—the total product of the industry of the nation, is variously

estimated at from 850 millions to 1200 millions a year. Mr. Gladstone puts it at about 1000 millions a year. One-fifth of this sum is 200 millions. So that, measured in money, the yearly cost of the drink traffic to the nation is about 200 millions, a sum which approximates very closely to that reached by Mr. Hoyle."

Roughly estimating the average liquor revenue during the same ten years (1871–1881) at £32,000,000 annually, and subtracting half this sum as the admitted average amount which the State expends in preventing, repairing, and punishing evils resulting from drink, we find that the State annually expends between 150 and 200 million pounds —most of which might be saved to the people—in order to make sure of its own annual revenue of from fifteen to twenty million pounds.

Mr. Hoyle's "Drink Traffic and its Evils."

In the *Drink Traffic and its Evils*, Mr. Hoyle makes the following comparison of estimates:—"To manufacture the £134,000,000 worth of intoxicating liquors consumed during each of the past twelve years, 80,000,000 bushels of grain, or its equivalent in produce, has been destroyed each year; and, taking the bushel of barley at 53 lbs., it gives us 4,240,000,000 lbs. of food destroyed year by year, or a total for the twelve years of 960,000,000 bushels or 50,880,000,000 lbs.

"The generally accepted estimate of grain consumed as bread food by the population of the United Kingdom is $5\frac{1}{2}$ bushels per head per annum; if this be so, then the food which has been destroyed to manufacture the intoxicating liquors which have been consumed in the United Kingdom during the past twelve years would supply the entire population with bread for four years and five months; or, it would give a 4-lb. loaf of bread to every family in the United Kingdom daily during the next six years.

"If the grain and produce which have thus been destroyed yearly were converted into flour and baked into loaves, they would make 1,200,000,000 4-lb. loaves. To bake these loaves it would require 750 bakeries producing 500 loaves each hour, and working ten hours daily during the whole year.

"An acre of fairly good land is estimated to yield about 38 bushels of barley. If this be so, then, to grow the grain to manufacture the £134,000,000 worth of liquor

which has been consumed yearly, it would take a cornfield of more than 2,000,000 acres, or it would cover the entire counties of Kent, Surrey, Middlesex, and Berkshire.*

"The value of the bread consumed annually in the United Kingdom is estimated at £70,000,000. Mr. Caird estimates the value of the butter and cheese consumed yearly at £27,500,000, and that of milk at £26,000,000, so that we have spent as much upon intoxicating liquors each year during the past twelve years as upon bread, butter, cheese, and milk, and leaving £10,000,000 yearly to spare.

"The rent paid for houses in the United Kingdom is

* "TABLE SHOWING THE POPULATION, TOTAL COST, AND AVERAGE COST PER HEAD OF INTOXICATING LIQUORS IN THE UNITED KINGDOM FOR VARIOUS YEARS FROM 1820 TO 1870, AND FOR EACH SUBSEQUENT YEAR UP TO 1882.

Year.	Population.	Total Cost.	Average cost per head.
		£	£ s. d.
1820	20,807,000	50,440,655	2 8 6
1825	22,571,000	67,027,263	2 19 5
1830	23,820,000	67,292,278	2 16 5
1835	25,443,000	80,527,819	3 3 0
1840	26,500,000	77,605,882	2 18 10
1845	27,072,000	71,632,232	2 12 11
1850	27,320,000	80,718,083	2 18 10
1855	28,183,000	76,761,114	2 14 6
1860	28,778,000	85,276,870	2 18 6
1865	29,861,000	106,439,561	3 11 3
1870	31,205,000	118,736,279	3 16 1
1871	31,513,000	125,586,902	3 19 1
1872	31,835,000	131,601,490	4 2 8
1873	32,124,000	140,014,712	4 7 8
1874	32,426,000	141,342,997	4 7 2
1875	32,749,000	142,876,669	4 7 3
1876	33,093,000	147,288,759	4 9 0
1877	33,446,000	142,007,231	4 4 10
1878	33,799,000	142,188,900	4 4 1
1879	34,155,000	128,143,865	3 15 0
1880	34,468,000	122,279,275	3 10 11
1881	34,929,000	127,074,460	3 12 3
1882	35,278,000	126,255,139	3 12 0"

—William Hoyle's *Our National Drink Bill as it affects the Nation's Well-being*. London, 1884.

about £70,000,000 per annum; the money spent yearly upon woollen goods is about £46,000,000, and upon cotton goods £14,000,000, giving a total of £130,000,000; so that we have spent upon intoxicating drinks each year during the last twelve years as much as the total amount of the house-rental of the United Kingdom plus the money spent in woollen and cotton goods, and leaving upwards of £4,000,000 to spare."

According to the *Daily Review* of Edinburgh (March 4, 1884), Sir William Collins, at the great Scottish Temperance Convention (of the day previous), after moving the first resolution, to wit, "That in the opinion of this convention, the traffic in intoxicating liquors, as common beverages, is a prolific source of drunkenness, insanity, pauperism, vice, crime, misery, disease, and death; and whilst thus proving ruinous to individuals and families, is at the same time hurtful to the trade and commerce of the nation, and utterly opposed to the general prosperity and well-being of the community," said that, "Assuming that the population of Glasgow contributed their proportion to the national drink bill, it would amount to nearly £2,000,000 per annum, or £13 10*s.* per family, while the whole rental of dwelling-houses in the city amounted to £1,233,371 or only £10 15*s.* per family; and the average rental of the houses in which two-thirds of the people lived was only £6 10*s.*, or less than one-half of the average sum spent per family on strong drink. On the other hand, the only result of the yearly drink bill was a large expenditure in dealing with the crime, poverty, and insanity which flowed from the traffic as a natural result, and an untold amount of misery, disease, and death to the slaves of the appetite, and, would that he did not require to add, to the helpless wives and still more helpless and innocent children. Could they, as patriots and professing Christians, stand longer by, and allow this state of things to continue? The nations of the past, who stood in the front rank of civilization, where were they? They fell because of their vices. Could they, who have had higher privileges, hope to escape from the consequences of their national vice and their national sin?"

And ex-Bailie Lewis, in a subsequent speech on the same occasion, said that "He had just been favoured with

the able and elaborate report of Captain M'Call, of Glasgow, which afforded evidence that during 1883 no fewer than 52,827 of the population of Glasgow were before a police magistrate. Of that number 40,537 were charged with drunkenness, simple assaults, etc.; and again, of that number 14,366 were dragged from the gutters and gathered from the streets drunk and incapable. They had thus 1 out of every 40 of the population drunk and incapable; 1 out of every 15 charged with drunkenness and assaults; and 1 out of every 11 before a police magistrate. Such was the condition of the western metropolis, whose motto is, 'Let Glasgow flourish by the Preaching of the Word.' It was right to observe that numbers of these were recommitments, but when they considered the large number of drunken persons who never fell into the hands of the police, it did not materially alter the case."

The relations between drink and poverty.

All these figures point with a vengeance to the relations between drink and poverty. With the sum now annually wasted in and through drink, England could in a few years pay the entire National Debt, and each individual could be comfortably housed, clothed, and fed.

It is a common opinion that poverty has more to do in producing drink than drink in producing poverty, yet it must, from the foregoing startling figures, be perfectly obvious that there is no comparison between the two. The £130,000,000 expended in drink are the direct outlay only; the best authorities declare that the mischief produced by this drink, estimated in money, more than equals this sum, so that at least £250,000,000 form the gross total of the annual national loss through drink, which must inevitably produce a stupendous amount of poverty. That, in this production of poverty, many afflicted through it do not drink before being struck down by misfortune, is no doubt true; but the great mass of the impoverished are so through drink, and further, though the poorer they become the less do they have to expend in drink, yet the little they do have is more certainly and exclusively spent in that way, to the utter neglect of every other claim or necessity. Thus drink first produces poverty, and then pushes it beyond the reach of remedy.*

* "'One in every eight of the population of rich and prosperous

That poverty causes drink in the sense that the wretchedly poor drink to drown their misery is probably in many instances true; but in this argument it is often forgotten that the abject poverty which drives this class of people (meaning here all who turn to drink not from vicious propensity, but under the goad of unbearable woes) to drink, is directly due to the circumstances and conditions as to work and wages, etc., which the drink traffic produces among the working classes, so that the honest, decent poor are beaten down in their struggle to keep on the level of decent poverty, and in their despair seek refuge in the very evil they have fought against at such heavy odds so long.

Dr. Dawson Burns on drinking as the mainspring of pauperism.

"If all testimony is not fallacious," says the Rev. Dr. Burns (*op. cit.*), "the mainspring of Pauperism and of all Destitution is Drinking; and until that is overcome, little reduction of the measure or burdens of this evil can be expected. Any temporary diminution will disappear with fluctuations of trade that are certain to occur. Without a Temperance reform, every project for *permanently* ameliorating our national impoverishment must be comparatively inefficient; but with such a reform the desired end could be accomplished to such an extent that the

England dies a pauper.' So we are told. But is not the statement altogether incredible? Is there in all broad England one prominent statesman or one leading journalist who would believe it, if it were put before him? I am convinced that there is not one. Yet it is substantially accurate. Here are the facts—some of the facts—on which it is based. In England and Wales during recent years, the number of paupers at one time receiving relief has averaged 800,000. Of these a little under 200,000 have been indoor, and a little over 600,000 have been outdoor paupers. Among the indoor paupers the mortality is very great. The Registrar-General's returns show that the deaths among indoor paupers constitute one-fifteenth of the total number of deaths in the country. It is difficult to ascertain with precision the number of deaths which yearly take place among the 600,000 outdoor paupers. Would it be extravagant to assume that the number of deaths (not the death rate) amongst them must be at least as great as among the 200,000? If it be assumed that the number of deaths (not the death *rate*, observe) among the 600,000 is as great as among the 200,000; that is, if the *death rate* among the former is one-third as great as among the latter, we are shut in to the conclusion that of every fifteen deaths which take place in England and Wales, two are the deaths of paupers. And that is a greater proportion than one in eight."—*Alliance News.*

worst forms of indigence and wretchedness would become as rare as they are now common; all classes would be relieved, and it would be possible to extend adequate aid to those who are most deserving, but who now are either totally neglected or but scantily assisted."

§ 64. This problem of poverty and degradation is now so prominently before the public that it seems specially fitting to call particular attention to the fact of these evils as being a result of drink—to which fact, testimony of a very striking character comes in on every side; which, it is earnestly to be hoped, will receive due attention from the Royal Commission* for devising means for housing the poor.

Parliamentary report on intemperance in 1834.

The report of the Parliamentary Committee on Drink of 1834 says—

"The loss of productive labour in every department of occupation, is to the extent of at least one day in six throughout the kingdom (as testified by witnesses engaged in various manufacturing operations), by which the wealth of the country, created, as it is, chiefly by labour, is retarded or suppressed to the extent of one million of every six that is produced, to say nothing of the constant derangement, imperfection, and destruction in every agricultural and manufacturing process, occasioned by the intemperance and consequent unskilfulness, inattention, and neglect of those affected by intoxication, and producing great injury in our domestic and foreign trade."

Reports of Drs. Parkes and Sanderson.

From the reports by Drs. Parkes and Sanderson (1871), I cite the following:—

"A tin-plate worker in constant work earns 22*s.* a week. He has a wife, a careful, respectable woman, and four children. The husband drank heavily. Sometimes he brought home 18*s.*, sometimes 16*s.*, sometimes 12*s.*; last week he drank it all. If he would bring 22*s.* a week she would be happy as the day is long. This family of six persons were living in one back room, paying 1*s.* 6*d.* a week rent. It was $10\frac{1}{4}$ feet long, 9 feet broad, and $8\frac{3}{4}$ feet high. The furniture was a bed, table, and two rickety chairs. Two of the four children were sick."

Statement by Sir Wilfrid Lawson.

Sir Wilfrid Lawson, M.P., addressing a meeting of the United Kingdom Alliance, January 24, 1879, said—

"There were a great many causes working together and causing the distress of the country at the present

* See p. 377.

time. Everybody had his notion about the causes of it. He read in the *Licensed Victuallers' Guardian* the argument of the licensed victuallers for it. Their account was that the distress was caused by over-trading, over-trading was caused by dishonesty and hypocrisy, and hypocrisy was caused by teetotalism. He was of the contrary opinion. He believed if the bulk of the people of this country were teetotalers there would have been very little distress at the present time. The Lord Provost, during the last few weeks that he had administered relief to the distressed in Glasgow, had asked every applicant if he was a teetotaler, and found he had not one teetotaler come before him for relief. Not considering other questions of foolish expenditure, he said the £140,000,000 which they spent every year in drink was quite sufficient to account for the distress. So long as in a country like this we went on spending that enormous amount of money, it appeared to him impossible that we could have a return to the prosperity which we should all like to see. The question was, how to put this expenditure down? It was said by some, 'Educate the people,' but he would ask how long we had to wait before these educational results showed themselves? During the last ten years we must have spent upwards of twenty millions of public money alone in educating the people, whilst intemperance had rather increased than diminished. So that they would see that education alone was not the cure. Some people said that the people wanted better homes, and that would be the remedy. But it was the drinking that made the bad home. It was not the bad homes that made the drinking. Others there were who held that religion would cure it. He admitted that truth was omnipotent, but if they could not bring the truth home to the people it was no good."

Address by Lord Derby.

On the 16th of January, 1880, Lord Derby, in an address to the Liverpool Penny Savings Bank Association, said—

"It may seem almost ridiculous to speak of penny savings in connection with the growth or decline of national wealth: but yet look at the matter that way. I will not repeat the old story of what the British liquor bill is—just one hundred and forty millions, or £20 a head for every

family of five in the British Isles. Nor will I tell you that half that sum saved would pay all the taxes of the year; but we all know that, without supposing the nation to adopt very ascetic habits, or even to become as strictly frugal as France, there is an enormous margin for reasonable economy, and we do not, I think, always sufficiently appreciate the fact that private frugality will enforce public economy. Suppose only one quarter of the sum spent in liquor or tobacco to be saved, that implies a reduction of ten millions in the revenue, *and do you suppose any Chancellor of the Exchequer would go to work to put on those ten millions again by taxation? Not he; he would learn to do without them.* It is a peculiarity of this country, and I think a happy peculiarity, that the classes whose incomes are under £150 a year—the class, that is, who live on weekly wages—may relieve themselves almost entirely from taxation if they think fit."

Address by Mr. Edward Jones, of the Toxteth Board of Guardians.

The next is quoted from the *Alliance News* (March 5, 1881):

"In an address to the 'ratepayers of Toxteth Park and others whom it may concern,' Mr. Edward Jones, of 4, Amberley Street, Liverpool, a member of the Toxteth Board of Guardians, says, 'The Guardians of Toxteth Park, in dealing with applications for relief from week to week, were struck by the large number of these cases which came from a particular district of the township. A return was therefore ordered of the exact number of applications for relief during a given period, from that portion of the township to the north of Park Street and west of Park Road, as compared with the applications from the rest of the township. These returns revealed the "startling fact" that two-thirds of our pauperism came from this district, comprising about one-eighth of the area, and only one-fourth of the population; the exact numbers being, from the district marked A, with heavy dark tints on the map, 911 applications for relief; from district B, 542; and from district C, 45, in the same period. The amount of money spent in liquor in district A may be gathered from the fact that over one hundred public-houses, or about half the total number of public-houses in the township, are maintained and doing a more or less flourishing trade within or closely abutting upon this area.

Estimating the average "weekly takings" of each of these public-houses at £20, and assuming that fully one-half of the population here are sober, industrious people, who spend little or nothing on drink, it may be taken for granted that from 10*s.* to 20*s.* per week from many families goes for liquor. How many struggling, sober, industrious families, paying poor rates, are compelled to live on less than those receiving parish relief spend in liquor when they can get it? The direct cost to the township of this area, in poor rates, is not less than £10,000 per annum, or equal to 6*d.* in the pound of the rates, over and above a very liberal allowance for pauperism. To this may be added the charge for extra police in these parts, the large sums distributed in private charity, and the hundred other ways in which the thriftless and the dissolute manage to impose a heavy burden of taxation, voluntary and involuntary, upon their neighbours. The money cost is not the only or the worst part of the business. Murders, stabbing, wounding, and other crimes of violence, are of frequent occurrence here. The slaughter of innocent babes, smothered by their drunken mothers, out-herods Herod. The death rate within this area, if published separately, would astonish the Health Committee and the Town Council of Liverpool, and would stand in striking contrast with the rate of mortality in the portions of the township without public-houses, which averages 10 in a 1000 in the rural district. Here it would probably be not less than 40 per 1000. Vice and immorality from these parts crowd our workhouse hospital, which must soon be enlarged, at the cost of the ratepayers, and there is displayed a state of things too revolting for description. . . . The applications for parish relief are few and far between, and these few from the streets nearest the dark area, though a large proportion of the inhabitants are of the artisan and labouring class. The head constable reports that his officers have very little to do in this district. No complaint has ever been heard of the absence of public-houses in the district, which is two miles long, and nearly the same distance wide in its longest measurement. That the people in the dark area do not wish public-houses in their midst is proved by the fact that they are rapidly migrating into the bright area, and that

whenever memorials in favour of Sunday closing of public-houses, and other restrictions, are got up, the people in the dark area are most unanimous in signing them. A motion for memorializing the Government in favour of a measure for reducing the number of public-houses was supported by seven members of the Toxteth Board of Guardians, while eight voted against.'"

Address by the Rev. John Kirk.

And the same journal (January 7, 1882) publishes the following from the pen of the Rev. John Kirk, D.D., Edinburgh:—

"This United Kingdom of ours is threatened with terrible poverty. The plague which is in various forms coming upon us is emphatically national. . . . A small number of people are becoming enormously rich, while the great mass of the community is becoming rapidly poor. . . . Especially in London scores are dying of literal starvation for lack of food to eat. . . . It is to be expected that explanations of this state of things should be given, but it is immensely strange that the most obvious of all should not even be suffered to be hinted at in the press, in the pulpit, or on the platform! . . . Above one hundred and fifty millions of sterling money a year is actually being handed over by the masses of the people into the hands of a few families for worse than nothing! The expenditure of this money in liquor involves far more than an equal loss in efficient labour, and in other ways. The ignorance of the multitude is so great, the fascination of the liquor is so powerful, the huge swindle is so supported by law and government, and the stream of gold is so enormous, that it is ostracism to lay it bare to the public eye, and yet it is wonderful that it should be possible to be silent on the subject, when the great body of the nation is rapidly sinking into helpless poverty by this iniquity alone! Only look at the subject for a few moments. Allow this liquor system to be suppressed, and at least three hundred millions of sterling money annually will remain in the ownership of the mass of the people. Let this sum as a capital be employed as it is employed now wherever liquor-selling has been suppressed; let this wealth accumulate as it will, and must do, and what would even seven 'bad harvests' do? The truth is palpable. These harvests would not give the people serious concern. They would

buy up our own farmers' grain, such as it is, at a good price, and do the same with the American and other grain. All would prosper, perhaps with the solitary exceptions of those who are now growing rich at the expense of their country's threatened ruin. . . .

"In the meantime, the subject is daily becoming one of more terrible importance to the great mass of the people. There is a fascination in alcohol so strong that its sale has only to be introduced into a neighbourhood to make it perfectly sure that it will carry everything before it. You may educate and civilize as you can; you may evangelize in the best possible methods; yet, if you keep up the distribution of strong drink among a people, you may rob them to any degree, and they will not even complain! It is incredible to what an extent the brewer and distiller have men and women at their will—so is it incredible that a Government can levy ten shillings of a tax on a liquor that does not quite cost one shilling and fourpence. But, however incredible, it is simple truth that so it is in reality! The very men who take the grain from our best fields, and convert it into a fiery liquid, ruinous to soul and body, are able to give ten shillings out of every eleven shillings and fourpence to what is called 'the State,' and yet to make large fortunes out of the remaining sixteenpence! They are able, too, to secure such a sentiment among a large and influential portion of the community as surrounds their amazing traffic with a sort of halo of respectability! And yet they dare not risk the power of licence for that traffic on the vote of the ratepayers! They dare not risk it on the vote even of drunkards!"

Mr. William Hoyle's testimony.

The following from Mr. William Hoyle's pamphlet, *Our National Resources and how they are Wasted*, appeared in the *Alliance News* (October 27, 1883):—

"The policy has been, multiply the temptations to intemperance, and then fine the drunkard or send him to prison. If he went on drinking till he or those dependent upon him were impoverished, let him be packed off to the workhouse. If by their dissipated conduct they lost their characters and became vagrants, needing a night's lodging, the policy was to make it unpleasant for them, and so drive them to barns, brick-kilns, hay-ricks, or anywhere else. If, when maddened by drink, or when impelled by

hunger, they committed crime, then their names were to be put upon the black list, enrolled among the outcasts of the nation, and over them was to be set the ever-watchful eye of the policeman. And if their children rambled about the streets uncared for, they were to be sent off to reformatory schools, where they would be supported and trained at the expense of the good citizens of the community, and the parents relieved from the burdens and expense of their charge, and thus enabled to have more money and freedom wherewith to indulge in dissipation and hurry on their own ruin. Such has been the policy of our statesmen during the last thirty or forty years, and to this policy we may attribute three-fourths, if not nine-tenths, of the social evils that so grievously affect our land.

"During the entire period of the recent long depression in trade, some very remarkable economic phenomena have presented themselves. In the first place, the warehouses of the country have been crowded with goods wanting customers, and side by side with these there have been multitudes of persons in distress and want, needing the goods which so overcrowded the warehouses. And then, further, there have been the banks with their coffers glutted with money seeking to be employed in carrying out the purchase and the transfer of stocks in the warehouses to the backs and the homes of the people who were in want; at the same time wages have been comparatively high, and the price of food has been low, thus giving a large margin of the nation's income as available for investment in manufactured goods; and yet the desired trade has not come. How has this arisen?

"There can only be one answer given to this question, viz., the one given by the *Economist* newspaper in its annual trade review in 1876. The *Economist* then stated that the dulness of trade arose from the fact that from some cause or other the means of consumers had become lessened; or, in other words, people had become so impoverished as to have no money with which to buy the goods.

"What was it that had impoverished the people? There were several minor causes that had contributed to this, chief among which were the bad harvests of the country. The loss from this source was variously estimated

in different years at from £20,000,000 to £50,000,000 per annum; but the main cause of impoverishment was this: the money which ought to have gone into the tills of the grocer, the draper, the tailor, the furniture dealer, etc., went into the till of the publican; £136,000,000 yearly thus spent, and another £100,000,000 sacrificed to atone for the mischief which the expenditure of the £136,000,000 caused, could have no other result than to produce depression in trade. There was every element of trade prosperity present, except the buying element, but, unfortunately, that element, instead of applying itself to the purchase of the goods which filled the warehouses, wasted its resources at the public-house; for instance, £4 per head were spent yearly in drink, and but eight shillings on cotton goods, and so people were in poverty and rags, and manufacturers could find no market for their goods.

"The question may arise in the minds of some of my audience—What does it matter whether the money be spent in drink or in manufactured goods, or in house-building, or in improving land, or, indeed, in any way? for, it is said, does not the money circulate in the country in one case just as much as in the other? Let us look at this point for a moment.

"I will suppose the case of one hundred men, each earning £2 weekly. On an average the men spend 12*s.* per week each in drink, which, unfortunately, for many men is not extravagant. At the end of the year these one hundred men will have spent £3120. Well, it is said, the £3120 is not lost, for it is circulating through the country, and, therefore, what does it matter how it is spent?

"Suppose, however, that instead of spending the 12*s.* weekly in drink, they put the money into a building club and invest it in building houses, the money would build twenty houses worth £156 each, and at the end of the year the £3120 would be circulating in the country just as was the case when spent in drink. In the one case there are £3120 circulating, plus nothing; in the other case there are £3120 circulating, plus twenty houses added to the wealth of the nation.

"Let us pursue the comparison further. As a result of the £3120 spent in drink, there would probably be some hundreds of cases of drunkenness; there would be

neglect and loss of work; there would often be cruelty and misery at home; there would be headaches, sickness, accidents; there would be neglect of families, pauperism, crime, vagrancy; there would probably be some addition of persons to the unemployed population of the country. and maybe also some parts of the families of the hundred men would find their way down amongst the lapsed masses of society. And there would further be the costs and burdens resulting from this condition of things; and the waste of labour and cost of striving to neutralize and remedy them. It is a low estimate to assume that from these causes £2000 would be lost to society, in addition to the £3120 of direct expenditure, or over £5000 in all.

"Let us follow the other expenditure in its results. In the first place, we find some twenty or more men set to work to build the houses. These, of course, would earn weekly wages, and at the end of the week, themselves or their wives would be off to the shops to purchase goods for their families; and besides this there would be the absence of the drunkenness and misery which resulted when the money was spent in drink.

"In one case we have £3120 circulated, plus a further indirect loss of some £2000, all of which is abstracted from trade, plus resulting misery that is appalling.

"In the other case we get £3120 circulated, plus twenty houses added to the nation's stock of wealth; plus employment found for twenty or more workmen; plus increased trade for the shopkeepers and manufacturers; plus a diminished taxation owing to the absence of the drink evil; plus happiness to the families concerned, instead of misery and maybe ruin.

"In order fully to appreciate the economic influence of these two courses of action, we must carry the comparison into the second year. The one hundred men who kept off the drink start the year with twenty houses, valued at £3120, whilst the others have nothing. If these houses are let at 4*s.* each weekly, they will yield £200 per annum, or it is an addition to the men's income of £2 each yearly, for which the men do not work. The third year it would be more, and the fourth year more again, and so wealth would go on increasing, the demand for labour would correspondingly grow, and along with both there

would be comfort and plenty instead of misery and ruin.

"A moment's reflection will start the problem in the mind of every thoughtful person; if to redeem an expenditure of £3120 from drink and transfer it to other and legitimate channels, so much of economic and social good results, what would have been the sum of the economic and social good which would have resulted from the redemption of the whole of the drink expenditure of £136,000,000 yearly during the last ten years? I fancy that in such a case we should not have been here to-night discussing problems, social, economic, etc., for the problems would have been solved, and the evils associated with them would have disappeared.

"So far as economic result goes, waste of wealth is as hurtful to trade and to the development of material progress when it occurs in the spending of money as in the production of goods. For example, if a man with an income of, say, 25*s.* weekly, throws 5*s.* of it into the sea, it will be clear that he might as well only have an income of 20*s.*; or if he does what is the same thing, squanders it in a way that yields him no return of good, he would be quite as well off financially and economically if his wages were reduced to 20*s.* per week; provided no portion of his income were squandered away.

"But if the man spends his money in a way that not only yields him no return of good, but which, instead of good, entails evil upon him, upon his family, and perhaps upon the community at large, then by the extent of the losses and evils which result from such misspending of money, to that extent is the waste of wealth still further increased. If we assume that the damage resulting is equal in extent, say, to four shillings, it will be clear that society will be no better off than if the man's income were only sixteen shillings, for the simple reason that, besides the five shillings lost in the spending, there is four shillings lost in damage done.

"It is an admitted fact in political economy that labour is the chief, if not the only source of value, or, in other words, of wealth. As a rule, things are valuable in proportion to the cost of their production. It will follow, therefore, that the labour of one week, if the income there-

from be properly expended, will create a demand for the labour of the succeeding week. If, therefore, there were only the current income fund to fall back upon, this, if properly expended, would keep the industrial ball rolling; but when we remember that there is an accumulated capital that seeks employment, and when we know that money rightly laid out and labour rightly applied are constantly reproducing themselves, and adding to the capital stock which needs to find employment in purchasing labour, or the products of labour, which is the same thing, it will be clear that there must be something terribly wrong in our economical arrangements and habits, or it would not be possible for pauperism and destitution to have a place in our midst.

"But when one-fourth or one-third of the nation's income is applied to purposes that yield no return of good, but often of harm; when we spend £136,000,000 yearly in drink, and sacrifice £100,000,000 more to make good the mischief which the drink does; and when in many minor ways we add to this waste, the total becomes a great one, and is a constant draft upon the trading or buying fund of the nation, and so it becomes impossible that the industrial ball can be kept rolling, inasmuch as the fund needed to secure this is so largely wasted; for we cannot both waste it and use it; and we may try to amend our poor laws, we may increase the repressive character of our criminal and vagrant laws, we may seek to get better dwellings for the working classes, we may labour to find work for our unemployed population, or reform our land laws, and improve the waste lands of the country—all good and many of them very good in their way—but they can never compensate for the waste of so much of the nation's income and wealth.

"If my hearers have been able to follow the facts and arguments which have been adduced, they will probably have come to the conclusion that the social questions which give to our statesmen and philanthropists so much concern would have no existence were it not for causes that we ourselves set in operation. The question of how to secure good trade, ensure fair and steady wages, provide work for our unemployed population, remove the inequalities of wealth and poverty which exist, how to banish pauperism and vagrancy, and largely reduce crime and lunacy, how to

lift up from degradation the lapsed masses of our country, how to secure better dwellings for our working classes, with other problems, are all bound up with the question of the drinking habits of the nation; remedy this, and all the others will practically disappear."

Letter by Mrs. Mary Bayly.

Mrs. Mary Bayly writes in the *Daily News* (November 19, 1883)—

"Those of us who have long watched the steadily increasing horrors of the homes of our London poor are deeply thankful for the prominence you have lately given to this subject. Your contributor says with truth that 'no single reform, no single line of effort will meet the evil;' but as regards both the small earnings mentioned, and the doubt expressed whether even comfortable incomes would avail much as things now are, I should like to call attention to the results of increased income in the past, and to causes now adding to pressure in the labour market. The five years which preceded 1877 were a time of unusual prosperity in the way of earning money; work was comparatively plentiful, and wages high. During those years the increase in the consumption of intoxicating drink was enormous; the home consumption of cotton goods went down eight per cent. Those who watched the homes of the poor during those dreadful years state that their moral condition then fell to a lower point than had ever been known before. There were happy exceptions not a few; but to the vast majority the large sums earned brought rather a diminution than an increase of all that is worthy the name of prosperity. Turning now to the subject of famine wages and competition for employment, even here the door of prosperity is bolted and barred, not by want of resources, but by our vices. When I return from homes whose belongings, all put together, would once have failed to realize half a crown, and see that, though only receiving the same wages as before, the reclaimed occupants have become customers to the ironmonger, cabinet-maker, crockery shop, linendraper, etc., I am at a loss to conceive how great would be the natural increase in demand for labour of all kinds if this change should become general. And when reading the heartrending statistics of ill-paid labour done by women, let us not forget that there are tens of thousands of married women crowding up the

labour market who ought never to be there at all. I have persuaded very many women to give up all paid labour, and to devote themselves entirely to their families. I can recall no instance where this change was not advantageous, even pecuniarily, for the waste and destruction caused by neglected children are indescribable. Where the wife has to earn money the children are usually in rags. Just a few indispensable articles of clothing are purchased ready-made at a slop-shop, at a price so low one wonders how anything can have been paid for making up. The mother at home can encourage honest trade by buying decent material which she makes up herself. But how is all this possible while thousands upon thousands of pounds are swept into publicans' tills every Saturday and Sunday night? The sums that are still forthcoming to procure intoxicating drink appear to me to disprove your contributor's statement that low wages are the main root of our present distress. They are a fruit, though bearing seed, it is true, and thus continually dropping fresh roots."

George R. Sims on "How the Poor live."

In his papers on "How the Poor live," published during the summer of 1883 in *The Pictorial World*, Mr. George R. Sims says—

"The gin palaces flourish in the slums, and fortunes are made out of men and women who seldom know where to-morrow's meal is coming from. . . . A copper or two often obtained by pawning the last rag that covers the shivering children on the bare floor at home, will buy enough vitriol madness to send a woman home so besotted that the wretchedness, the anguish, the degradation that await her there have lost their grip. . . . If I were asked to say offhand what was the greatest curse of the poor, and what was the greatest blessing, I think my answer to the first query would be the public-house, and to the second, the hospital."

The testimony of Mr. W. S. Caine, M.P.

And this from the *Daily News* (November 20, 1883):—

"Speaking on Sunday night at the Great Central Hall, Shoreditch, which is within a stone's throw of some of the London 'slums,' Mr. W. S. Caine, M.P., said that the question of housing the London poor was one, he thought, in which Parliament could help, not by building houses at the cost of the State, but in removing as far as possible the causes which resulted in the evils now being so widely

discussed. Drink made the poor live where they did. Tales of poverty had been told—how people had to make match-boxes at 2½*d.* per gross, how women had to work fourteen or fifteen hours per day at shirt work ere they could earn a shilling, how at waistcoat-making people could not get a living. Why was it? Because trade was depressed, was the answer. Why was trade depressed? Because those who wanted to buy could not buy. Who were those who wanted to buy and could not? People who took their money to the public-house instead of laying the same out in necessaries. If London next day became teetotal, £200,000 per week would be available. Two hundred thousand families might have a pound per week each added to their incomes."

Archdeacon Farrar's sermon on drink in Westminster Abbey, Nov. 19, 1883.

On the occasion of the twenty-first anniversary of the Church of England Temperance Society, November 19, 1883, a noble sermon on the drink evil was preached in Westminster Abbey by Archdeacon Farrar.

"We have heard much in these days," said he, "of 'Horrible London,' and of the bitter cry of its abject. What makes these slums so horrible? I answer with certainty, *and with the confidence of one who knows—drink!* What is the remedy? I tell you every remedy you attempt will be a miserable failure. I tell the nation with conviction founded on experience that *there will be no remedy till you save these outcasts from the temptation of drink.* Leave the drink, and you might build them palaces in vain; leave the drink, and before the year is over your palaces would be reeking with dirt and squalor, with infamy and crime." *

George R. Sims on "Horrible London."

Says Mr. Sims, in his paper on "Horrible London" in the *Daily News* (November 23, 1883)—

"It is not fair to prove by facts and statistics the evil of over-population and the evil of low wages, and to shrink from revealing the evil of drink. That has to be removed as well as the others, and must be taken into account. . . . It is only when one probes this wound that one finds how deep it is. Much as I have seen of the drink evil, it was not until I came to study one special district, with a view of ascertaining how far the charge of drunkenness could be maintained against the poor as a body, that I had

* *Church of England Temperance Chronicle*, Nov. 24, 1883.

any idea of the terrible extent to which this cause of poverty prevails.

"Come to a common lodging-house, and see what class of people fill the beds at fourpence a night. Poor labourers? Yes. Loafers and criminals? Yes. But hundreds of men who have once been in first-class positions, and who have had every chance of doing well, are to be found there also.

"For my purpose I will merely take the cases which have drifted to the slum lodging-house through drink.

"The following have all passed recently through one common lodging-house in one of the most notorious slums of London:—

"A paymaster of the Royal Navy.

"Two men who had been college chums at Cambridge, and met accidentally here one night, both in the last stage of poverty. One had kept a pack of hounds, and succeeded to a large fortune.

"A physician's son, himself a doctor, when lodging here sold fusees in the Strand.

"A clergyman who had taken high honours. Last seen in the Borough, drunk, followed by jeering boys.

"A commercial traveller and superintendent of a Sunday school.

"A member of the Stock Exchange—found to be suffering from delirium tremens—removed to workhouse.

"The brother of a clergyman and scholar of European repute died eventually in this slum. Friends had exhausted every effort to reclaim him. Left wife and three beautiful children living in a miserable den in the neighbourhood. Wife drinking herself to death. Children rescued by friends and provided for.

"Brother of a vicar of a large London parish—died in the slum.

"These are all cases which have passed through one common lodging-house. What would the others show had we the same opportunity of knowing their customers? These people have all been forced back on a rookery through drink—sober, they need never have sunk so low as that."

The following is quoted from the "Dustman's speech" The "Dust-

man's speech" in Exeter Hall (Nov. 21, 1883).

at the Working-men's Meeting, November 21, 1883, in Exeter Hall:—

"I say again, as a working man, that we have had too much talk about a working man being robbed of his liberty if he gives up intoxicating drink: that is exactly when he gets his liberty. I say, God bless the publicans and the distillers, and may they soon lose the situation that they now have, for life to them is death to us. I will show them why. If they lost their situations, there would be more custom for other shopkeepers, and the surroundings of neighbourhoods would be improved. If there is anything that is interfering with the liberty of the people at the present day, it is the consumption of intoxicating drink."

The condition of drunkards' children.

As to the children of drunkards, the *Alliance News* (September 27, 1879) says—

"Attention has of late been turned by correspondents of Manchester to the poor children who are forced to pick up a living in the streets at most untimely hours. The writer of a letter in the *Manchester Guardian*, for example, recounts how within half an hour of midnight he was accosted by a lad of about eight years of age, who desired him to buy a box of matches. The lad was crying bitterly, and followed the writer a long way, beseeching him to give him a penny for the box. Having been cheated several times by children affecting great distress, the writer ordered him rather gruffly to begone; and he slunk away, sobbing in a manner which went to the very heart. Conscience compelled the hearer to turn back and question the boy. He replied through his tears that he dared not go home, because his mother would 'leather' him, as he had had bad luck that day. This precious mother, it seems, had given him three-halfpence in the morning, and told him that he must not return until he had earned sevenpence halfpenny, or else he would 'catch it.' He invested one penny of this capital in two halfpenny boxes of matches, which he sold in the course of the day for one penny each. Then he bought another two, but had only managed to dispose of one of them, leaving him at that late hour with only twopence halfpenny and a box of matches. His little brother had gone home before him, and he could not help crying, as his mother always

'leathered' him if he did not come home with the money in time. The lad was covered with rags and tatters from head to foot, but he had an intelligent face, and spoke both correctly and modestly. After rewarding him for his information, the writer turned homeward, meditating on the horrible fact that, with all our civilization, there should exist parents who enslave their children, and deliberately make their lives a blight to them and a curse to society.

"Subsequent revelations and reports of other letter writers have shown beyond all doubt that children thus abused always have parents who spend most of their substance in drink. The child ragged and ill-used is ever the drunkard's child. Education, clothing, food, home care, all are swallowed down with the drink, and the poor child is sent out with curses and threats to force sales on a compassionate public, instead of being folded at home in the arms of parental love. The philanthropists, whose feelings are shocked on the discovery of so much cruelty, at once set to work to devise some petty ameliorations and palliatives. The children must, forsooth, be taken from their parents, and thrust into industrial schools. Or there must be a law passed forbidding children's sale of matches or papers in the streets after a certain hour in the evening. All the while the truth is overlooked, that so sure as the existing cases of parental cruelty and of children's nocturnal street-cries are dealt with, a new crop of children, equally wretched, and equally needing deliverance from their parents, will arise to point the finger of scorn at the labours of the philanthropist.

"When a tree is evil, and brings forth evil fruit in ceaseless profusion, they do nothing who confine their efforts to the fruit. Clear away one crop, another still succeeds; and so it will be till Philanthropy, tired out, folds her hands and sits down in sheer despair. But to kill the root is to cut off the fruit; and they who seek to stop the sad fruit of drunken cruelty to children must go down under the cruelty, which is the fruit, to the drunkenness, which is the stem of the tree, and again below that to the liquor traffic, which is the root. Until this is done nothing is done. The bitter crop removed, renews itself. The hellish bough is torn away from the tree for a moment; but *uno avulso, non deficit alter.*"

Comparison between the revenue returns from drink in prosperous and unprosperous years.

Perhaps the best and most conclusive proof that drink causes poverty, infinitely more than poverty causes drink, is seen by a comparison of the revenue returns in prosperous and unprosperous years.

In the measure that England is prosperous the drink bill increases; on the other hand, in the measure that trade and wages are depressed and the country poorer thereby, the drink bill diminishes; but if poverty were the cause of drink, it would seem as if this would be exactly reversed, *i.e.*, in years of prosperity there should be less intemperance, and *vice versâ*.

Address by Cardinal Manning.

"Can it be for a moment imagined that this great commercial country, so wise and so skilful in all finance, in all investments, and with its eyes open, can go on year by year wasting a hundred and forty millions of money in the production of intoxicating drink, which when drunk is gone? Can there be a more complete waste? Expend it in the drainage of England and the culture of the land, and there would be bread for the hungry mouths of the people. Expend it in manufacture of cloth, and there would be no man and no child without a coat upon his back. Expend it in the building of houses fit for human habitation, and there would not be a working man and his family without a roof over his head. We talk of profitable investments, and then waste a hundred and thirty millions in the most unprofitable investment that can be conceived by the imagination of man. Nay, I will go further. It is not only waste. It has a harvest. It is a great sowing broadcast. And what springs from the furrow? Deaths; mortality in every form; disease of every kind; crime of every dye; madness of every intensity; misery beyond the imagination of man; sin, which it surpasses the imagination to conceive." *

That poverty, even when honourable and averse to drink, can be coerced by its dire necessities into filling the publican's till is seen in the digest of the Parliamentary evidence on Drunkenness in 1834.

Important evidence of Charles

"(Charles Saunders called in and examined.)

"333. What is your occupation?—Coal-whipper.

* From an address on temperance delivered at Newcastle-on-Tyne, by Cardinal Manning and reported in the *Alliance News*, September 9, 1882.

Saunders before the Parliamentary Committee on Drink in 1834.

"334. Have the goodness to state to the committee the manner in which coal-whippers are engaged and paid.—I have been in the habit of obtaining a living by coal-whipping for the last ten years. When I want employment (me and the likes of me, of course) I have to go to the publican to get a job, to ask him for a job; and he tells me to go and sit down and he will give me an answer by-and-by. I go and sit down, and if I have twopence in my pocket, of course I am obliged to spend it, with a view of getting a job; and probably, when two or three hours have elapsed, by that time there is about fifty or sixty people come on the same errand to the same person, for a job. He keeps us three or four hours there; and then he comes out, and he looks round among us, and he knows those well that can drink the most, and those are the people that obtain employment first. Those that cannot drink a great deal, and think more of their family than others do, cannot obtain any employment; those that drink the most get the most employment. When the men are made up for the ship, we go to work the next day morning; but we have to take what the publican calls the *allowance*, such as a quartern of rum or three half-quarterns, or a pot of beer; then they have to take a pot of beer off in a bottle on board—what *he* calls beer, but not fit for a man to drink generally speaking; what I call *poison*. I have actually teemed it overboard myself, before I could drink it; I could not drink it, although I have been sweating and as thirsty as a man could be, and have put it overboard, and gone and dipped my bottle in a bucket of water.

"337. In the after part of the day, when your work was over, where did you go then?—Then when we had done our day's work we came on shore, and we had to go into the house again; and perhaps we might want a shilling or two to get our families a little support. The landlord would tell us to go and sit down in the taproom, and he would give us some by-and-by, and he would keep us there till nine or ten at night; first we would go for a *pint* or a *pot*, to see whether he was getting ready, for we dared not go empty handed, without a pot or a pint, or to call for something by way of excuse. After keeping us there until nine or ten at night, then he would give us half a crown or three shillings.

"340. What would have happened if you had refused to spend money in drink?—Then we could have no employment; and, moreover, if you had had what you thought was requisite, if he did not think it was sufficient, he would add more than what you had actually contracted for; and if you refused to pay this, and said, 'I have not had so much, I won't pay it'—'Oh, won't you? If you do not, here is your money what you say it is; go out and never come in here again.'

"341. Have you known anybody refused employment because they would not contribute to the publican's demand for drink?—Yes; I could find fifty.

"342. Who have lost their employment because they would not drink so much as the publican wished?—Yes, I could.

"343. Could you not engage yourself to the captain of the ship without going to the publican?—No; for the publicans are some of them shipowners, and they are all intermixed through the trade by one thing and another, so that the captain or owner of the ship gives the favour to the publican to employ the whippers."

Report of the special sanitary commissioner of the *Lancet* in 1872.

A practical illustration of the degradation brought about by drink and poverty combined is furnished in the report of the special sanitary commissioner of the *Lancet*, made in 1872, in which the social condition of the poor at Liverpool is thus described:—*

"There is here a form of poverty which can neither be coaxed nor coerced; fines are useless, imprisonment vain. There are upwards of six thousand cellars occupied by permission of the law, where at night drunkenness and dirt, wretchedness and rags beggar description. The air is redolent with broken sewers and human ordure; it is polluted with odours of filthy persons, foul rags, and stinking fish. The very walls exhale a stench of vermin and contagion. In not one room in ten is there a bedstead, in not one a wholesome bed. The inmates lie upon the floor, from which they are separated by a bit of straw or a bundle of dirty rags. Mothers and sons, fathers and daughters, brothers and sisters, relations and strangers of both sexes, lie indiscriminately together, many

* Since this date the sanitary condition of Liverpool slums has been much improved.

of them all but naked, locked in each others' arms for warmth."

The meaning and import of such degradation.

In this fearful picture we see a condition—probably chiefly due to intemperance, certainly greatly intensified and rendered hopeless by it—in which all distinctions by which we know one another as worthy of life, hope, and love have been destroyed. Six thousand such cellars in one city!

Why, then, in that one city alone there must be physical and moral poison enough to infect the whole social structure of the world. But when we remember that Liverpool is not alone, that there is no city without some such compost-heap of vice, and remember, too, that unity of the race which asserts itself, in vice as well as in virtue, over all the most cleverly contrived and impregnable barriers of class and caste, so that there is a mutual trickling and percolating interchange of life-essence through the whole stratification we call society; then we begin to see something of the tremendous danger and horror of the evil that has been suffered to root itself with the life-roots of the race.

To illustrate in part what I mean by saying that the unity of the race overcomes the barriers of caste and class, and asserts itself in vice as in virtue, I may point to the invincible levelling power of the sexual passion—the power given to us to inspire us to seek the highest plane of moral being possible to this life, but by which we can, if we will, sound the lowest abysses. It is the one touch of nature making the whole world kin; making it kin on the pure and lofty plane of true and perfect home-life where sons and daughters grow up in the strengthening light of the unselfish love which first united the husband and wife, and now binds and inspires them in fatherhood and motherhood; making it kin in the populous world of the merely pleasure-seeking; and again making it kin in those depths where it has sunk into the low and ravenous sensual instinct of prey.

Wherever man exists, this one power, dominating for good or ill, is our common inheritance and keeps obliterating all external distinctions, drawing the race together, and cementing life-relations in the present, and for posterity, despite the strongest contrast and most insurmountable obstacles.

Out of some of those six thousand cellars in Liverpool —nests of utmost vice and degradation as they are—some young girl may emerge, who, in spite of rags and dirt and every bad inheritance, may be fair, may have both wit and pretty looks enough to catch the fancy of some gentleman's son; and if drink has done its usual work of strangling the moral life within him, as inheritance and environments have done it for her—the worst wrong that may follow does follow, and if a child is born and lives, it may by an advance in mental endowment take its vile moral heritage where yet wider nemesis will be wrought.

For if those who dwell always in the safety and refinement of real homes, imagine that the slums and dens of vice are far from them and theirs—that there can be nothing in common between them, I must in conscience hint that they may be making the dangerous mistake of under-estimating the damning power of alcohol to obliterate just those refined distinctions in which they trust.

Alcohol can and does lead the husbands, fathers, brothers, and sons of just such prosperous homes into just such pits of infamy. They do not go at once and with their eyes open, but step by step, as surely as the drinking habit is once formed. For alcohol is not satisfied with making men act weakly and wrongly; it will have them gravitate to worse and worse, and is cunning to devise always some lower and more blasting shame. It develops also that other cunning of madness, quickness and watchful subtlety to veil its ravages and deceive the solicitude of loving ones. And the result is not only that besides the family we know of, sheltered under the same roof with us, there are half-brothers and half-sisters whom we never know, homeless wanderers in friendless guilt and shame, or tenants of early graves that cry louder than Abel's blood; but the evil comes home and the good wife and mother is made to unconsciously impart the secret poison to her latest born.

"Why should London wait?" *Daily Telegraph*, Oct. 25, 1883.

Under the heading, "Why should London wait?" the *Daily Telegraph* (October 25, 1883) says, "It is, however, beginning to be known what cruel sights and scenes the wealth and magnificence of London conceal. Men, women, and children by hundreds of thousands exist among us in a condition which savages would scorn and beasts refuse to bear. Without light, air, fresh water, or any of the veriest

necessities of human life, they are forced to congregate in places where not only morality but the merest decency becomes impossible. A majority among them are industrious and patient people, eager to work while they can; for thieves, prostitutes, tramps, and beggars are, most of them, better lodged than the victims of the vestry and the caucus whose cause is now at stake. Into rotten and reeking tenements they are driven helplessly by the process which rebuilds the capital without making rightful provision for its weakest citizens, and their cry is drowned and their sorrows overwhelmed in the ocean of existence which surges around them. 'Every room,' says an explorer, 'in these rotten and reeking tenements houses a family, often two. In one cellar a sanitary inspector reports finding a father, mother, three children, and four pigs! In a room a missionary discovered a man ill with small-pox, his wife just recovering from her eighth confinement, and the children running about half-naked and covered with dirt. Here are seven people living in one underground kitchen, and a little dead child lying in the same chamber. Elsewhere is a poor widow, her three children, and a child who had been dead thirteen days. Her husband, who was a cabman, had shortly before committed suicide. Here lives a widow and her six children, including one daughter of twenty-nine, one of twenty-one, and a son of twenty-seven. Another apartment contains father, mother, and six children, two of whom are ill with scarlet fever. In another nine brothers and sisters, from twenty-nine years downwards, live, eat, and sleep together. Here is a mother who turns her children into the street in the early evening because she lets her room for immoral purposes until long after midnight, when the poor little wretches creep back again, if they have not found some miserable shelter elsewhere.' Where there are beds they are simply heaps of dirty rags, shavings, or straw. Crime also, as a matter of course, spreads like a fungus in decaying timber, where a child must make fifty-six gross of match-boxes a day to earn the ten shillings a week which thieving will easily bring him. There are women who work at the needle seventeen hours per diem for the pay of one shilling! In St. George's-in-the-East large numbers of children toil with their tiny fingers all day making sacks at a farthing apiece! One poor woman was found, con-

sumptive and emaciated, with a drunken husband and five starving children 'eating a few green peas.' In a room at Wych Street, 'on the third floor, over a marine store dealer's, there was, a short time ago, an inquest as to the death of a little baby. A man, his wife, and three children were living in that room. The infant was the second child, who had died, poisoned by the foul atmosphere; and this dead baby was cut open in the one room where its parents and brothers and sisters lived, ate, and slept, because the parish had no mortuary and no room in which post-mortems could be performed!' In such abodes what room is there for honesty, or faith, or hope? Virtue herself departs, ashamed, hopeless, and silent, from 'homes' where she has nothing to offer, nothing to promise; where Vice itself is so miserable that it is more to be pitied than reproached.

"These are but slight and simple examples of the state of things prevalent in the capital of Great Britain; widely, notoriously, terribly prevalent; of cases to be paralleled by thousands and scores of thousands behind the splendid streets and wealthy squares of London."

The Bitter Cry of Outcast London (1883).

From the little pamphlet entitled *The Bitter Cry of Outcast London*,* I quote the following (showing the close relation between drink, poverty, and shame):—"The low parts of London are the sink into which the filthy and abominable from all parts of the country seem to flow. Entire courts are filled with thieves, prostitutes, and liberated convicts. The misery and sin caused by drink in these districts have often been told, but these horrors can never be set forth either by pen or artist's pencil. In the district of Euston Road is one public-house to every hundred people, counting men, women, and children. Children who can scarcely walk are taught to steal, and mercilessly beaten if they come back from their daily expeditions without money or money's worth. Many of them are taken by the hand or carried in the arms to the gin-palace, and not seldom may you see mothers urging and compelling their tender infants to drink the fiery liquid. Lounging at the doors, and lolling out of windows, and prowling about street corners were pointed out several well-known members of the notorious band of 'Forty Thieves,' who, often in conspiracy with abandoned women, go out after dark to

* Issued by the Committee of the London Congregational Union.

rob people in Oxford Street, Regent Street, and other thoroughfares. These particulars indicate but faintly the moral influences from which the dwellers in these squalid regions have no escape, and by which is bred 'infancy that knows no innocence, youth without modesty or shame, maturity that is mature in nothing but suffering and guilt, blasted old age that is a scandal on the name we bear.'"

Mortality from drink.

§ 65. The mortality from drink has been a much-disputed question, and the many public utterances by men accounted both competent and veracious have for some reason received but slight attention from the public; and it is perhaps not well known that the average figures now generally accepted as approximately true have been computed as long ago as in 1839. In the Rev. B. Parsons' *Anti-Bacchus* (1839) I find the following:—"At an inquest held June, 1839, on a person who had died from the effects of intemperance, Mr. Wakley, coroner, made these remarks: 'I think intoxication likely to be *the cause of one-half the inquests* that are held.' Mr. Bell, the clerk of the inquests, observed 'that the proportion of deaths so occasioned were supposed to be *three out of five*.' 'Then,' said Mr. Wakley, 'there are annually 1500 inquests in the Western Division of Middlesex, and, according to that ratio, *nine hundred of the deaths* are produced by hard drinking.' On another occasion Mr. Wakley said, 'Gin may be thought the best friend I have; it causes me to hold annually *one thousand inquests* more than I should otherwise hold. Besides these, I have reason to believe that from ten to fifteen thousand persons in this metropolis die annually from the effects of gin-drinking, upon whom no inquests are held.' These remarks appeared in most of the public papers of the time, and are the more valuable because Mr. Wakley, not long before he became coroner, spoke in the House of Commons rather sneeringly of teetotalers; the observations made above were therefore extorted from him by the scenes he had witnessed."

Statement by Coroner Wakley in 1839.

Testimony of Dr. Norman Kerr.

In his *Mortality of Intemperance* (London, 1879) Dr. Kerr says, "When, a few years ago, I instituted an inquiry into the causes contributing to the mortality in the practice of several medical friends, it was with the avowed object of demonstrating and exposing the utter falsity of

the perpetual teetotal assertion, that 60,000 *drunkards died every year in the United Kingdom.*

"I had not long pursued this line of inquiry before it was made clear to me that there was little, if any, exaggeration in these temperance statistics; and when asked to present the final results of my investigation to the last Social Science Congress, I was compelled to admit that at least 120,000 of our population annually lost their lives through alcoholic excess—40,500 dying from their own intemperance, and 79,500 from accident, violence, poverty, or disease arising from the intemperance of others."

The *Harveian Society Report* concludes that fourteen per cent. of the mortality among adults is due to alcohol; *i.e.*, about 39,000 in England and Wales, or 52,000 in Great Britain; thus the Harveian computation exceeds Dr. Kerr's by 11,500.

On the occasion of the Jubilee of the British Medical Association (held at Worcester, August, 1882), Dr. Kerr reiterated his statements, and no one disputed their accuracy; it was even admitted that he was within the truth.

Sir Wm. Gull on alcoholic infanticide.

In a June number of the *Echo* (1883) appeared a powerful plea for the protection of infants, entitled *Alcoholic Infanticide.* It stated that Sir W. Gull considered alcohol as the "most destructive agent among the causes of infant mortality," and cited the evidence of the coroners concerning the fearfully frequent suffocation of helpless little ones under the heavy bodies of their torpidly drunk mothers—a kind of accident known as "overlaying;" and alluded to the weekly records of child-murder committed, not from stupidity, but in the direct violence of the drink-frenzy, by braining the babe or casting it in the fire. The *Echo* quoted Darwin, and Drs. Edis, Richardson, Bree, and Elam, as testifying to great infant mortality from drink, and to the evil hereditary results for those who survived.

The *Lancet* of about the same date suggested a frightful significance for the *overlaying* mortality, to the effect that it was by no means always accidental.

Mortality among liquor dealers.

An appalling and pathetic feature in the drink mortality list, and a most conclusive proof that drink is a foundation

of death, is furnished by the statistics of death among the liquor dealers themselves.

Estimate of Dr. Kerr.

Dr. Kerr, in the essay just quoted from, says, "The mortality of publicans is so serious that the Registrar-General's reports show that 138 die for every 100 employed in 70 leading occupations; and in his last annual report he draws attention to the remarkable increase in the rate of mortality among grocers at every group of ages since they have begun to retail spirits."

Statement by Mr. David Lewis.

Mr. David Lewis, ex-magistrate of the city of Edinburgh, in his *Drink Problem and its Solution* (1881), says —"So frequent have premature deaths become among publicans, that one of the most wealthy and popular life assurance associations in the kingdom (the Scottish Widows' Fund) has issued a circular to all its agents instructing them that in future the life of no publican can be insured upon any terms whatever. This example, we observe, is being followed by several other associations in this country and America."

Notice issued by General Assurance Office in 1881.

And the General Assurance Office, on the 18th of February, 1881, issued a notice, which stated—"That in consequence of the excessive mortality experienced in the case of innkeepers whose lives have been assured with the company, it is hereby notified that from this date the directors will not undertake these risks on any terms."

Statement by Dr. Edmunds.

Concerning the mortality among public-house keepers, Dr. Edmunds, in his *Use of Alcohol as a Medicine* (1867), says—

"You will find that thirty per thousand of those die every year where the normal average of other men is fifteen —that is, where one workman dies two publicans die. Can we account for that in any way? What should we expect if we looked into these facts? The publican is better clothed than the working man; he is better housed and better fed, and less exposed to casualty and accident which occur to men in laborious, mechanical, and other trades; and therefore we should expect that the publican would live longer than the ordinary working man. And so he would, if it were not for this one fact which comes in—he is mixed up with alcoholic liquors; he is not, as a rule, a drunkard, but he takes that which damages his stomach,

a good many times a day, out of compliment to some friend who asks him to take a drink!"

Relative longevity of drinkers and abstainers, as furnished by the United Kingdom Temperance and General Provident Institution for Mutual Life Insurance.

As to the relative healthfulness of temperance or drink the tables yearly made up by the United Kingdom Temperance and General Provident Institution for Mutual Life Insurance (established 1840) afford conclusive practical evidence. The secretary of this institution, Mr. Thomas Cash, kindly furnished me with the following condensed but lucid statement:—

	Temperance Section.			General Section.	
	Expected Claims.	Actual.		Expected Claims.	Actual.
1866–70 (five years)	549	411	.....	1008	944
1871–75 (five years)	723	511	.....	1268	1330
1876–80 (five years)	933	651	.....	1485	1480
1881–82 (two years)	439	288	.....	647	585
Total (17 years) ...	2644	1861	.....	4408	4339

It will be seen from this that the claims in the temperance section are only a little over seventy per cent. of the expectancy, while in the general section they are but slightly below the expectancy.

Statement of Mr. W. B. Robinson, Chief Constructor, R.N.

Mr. W. B. Robinson, formerly Chief Constructor, R.N., Portsmouth, in a paper on *The Value of Life being increased by taking no Intoxicating Drinks*, read before the Economic Section of the British Association for the Advancement of Science, September 22, 1883, said that "The Sceptre Life Association states that during 'the eighteen years of our history ending December 31, 1882, we had 116 deaths in our temperance section, against 270 expected deaths,' and in 'this year, 1883, the same disproportion prevails, as we have had fifty-one deaths, and only seven of them on the lives of abstainers, whereas to be equal with non-abstainers there should have been nineteen.'

"In the Emperor Life Assurance Office they have a temperance branch, and they assure lives at a 'less rate than moderate drinkers, thus giving them an immediate bonus of from £3 to £7, according to age, on each £100 assurance.'

"In some accidental offices the assumed superior lives

of abstainers is recognized by a charge of 20 per cent. less to teetotal than to moderate drinkers." *

§ 66. Schlegel said, when this century was in its dawn— "Drinking is the principal cause of insanity and suicide in England, Germany, and Russia, of licentiousness and gambling in France, and of bigotry in Spain." Schlegel on drink as cause of insanity and suicide.

Dr. F. Ganghofner, of Prague, in his address on the *Influence of Alcohol on Man* (Prague, 1880), says, "It is estimated that in the asylums of America, England, and Holland, the total number insane from drink ranges from 15 to 20 per cent., and from 20 to 28 per cent. in the asylums of France." Dr. Ganghofner's estimate of alcoholic insanity in America, England, and Holland.

In the *Journal of Mental Science* (April, 1869), Dr. Lockhart Robertson computes for England and Germany, in 1844, one lunatic to every 808 inhabitants, and in 1868 one lunatic for every 432 inhabitants. Dr. Lockhart Robertson's computation for England and Germany.

The third report on intemperance before the Select Committee of the House of Commons shows, from 1865 to 1875, an increase in population of 13 per cent., in lunacy of 67 per cent., and in drunkenness of 130 per cent. House of Commons Report for from 1865 to 1875.

Mr. Hoyle states that "The number of lunatics in asylums and workhouses in the United Kingdom will be slightly over 100,000, besides many not in asylums. In England and Wales, in the year 1860, there were 38,038, but in 1880 they had increased to 71,191, being nearly double, although the population had only increased 28 per cent." Mr. Hoyle on alcoholic insanity in England and Wales.

And I may add that, according to the last report of the Commissioners of Lunacy, "the total number of lunatics, idiots, and persons of unsound mind, registered as being insane, in England and Wales, on the 1st of January, 1883, was 76,765!" Last report of the Commissioners of Lunacy.

Dr. Edgar Shepherd, Medical Superintendent of Colney Hatch Lunatic Asylum, stated a few years ago publicly that he believed that 40 per cent. of the insanity in Great Britain was the result of drink. † In his annual report for Dr. Shepherd's statement.

* For further information on this most practical point, see *The Comparative Death-Rate of Total Abstainers and Moderate Drinkers*, by Dr. C. R. Drysdale, in *Med. Temp. Journal* (Jan., 1884), *The Vital Statistics of Total Abstinence*, by the Rev. Dawson Burns (March, 1884).

† *Med. Chirurgical Journal*, 1876.

1877, Dr. Shepherd repeated this statement in these words:—"A careful analysis of the year's admissions clearly established a percentage of more than 28 as due to this cause (intemperance), and I am persuaded, from the character of the individuals and the form of their malady, in other cases where the causation is not assigned or cannot accurately be traced, that an addition of 12 per cent. may directly or indirectly be attached to the same origin. Thus we have an approximate record of 40 *per cent.* of the madness of Middlesex as due to an avoidable cause, and that cause the growing passion for drink."

And again in January, 1882, he said, "I have seen no reason to alter my opinion, so frequently expressed, as to the part played by alcoholic intemperance in its causal relation to insanity. No doubt many cases occur in which some mental disturbance, generated by what is termed a moral cause—notably loss of money or friends—leads, in the first place, to excessive imbibition; but I am persuaded that the prime mover of all that is disarranging is intemperance."

And Dr. Pritchard Davies, Medical Superintendent of the Barming Heath Asylum, says in the report for November, 1883, "Believing, as I do, that the predisposing causes of insanity are very numerous, I am equally convinced that but for the potent exciter alcohol, insanity would be decreased by at least 50 per cent."

Statements by Earl Shaftesbury.

Earl Shaftesbury, permanent chairman of the Lunacy Commission since 1845 (and acting chairman for many years, having been on the Commission some fifty years), in his reply to Rt. Hon. Stephen Cave, chairman of the Lunacy Commission of the House of Commons, 1877, said that in his opinion "intemperance is the cause of fully two-thirds of the insanity that prevails either in the drunkards themselves or their children;" and in a recent address in the House of Lords he stated that "fully six-tenths of all the cases of insanity to be found in these realms and in America arise from no other cause than intemperance."*

* The table of causes from the thirty-seventh Report of the Commissioners of Lunacy, July, 1883 (see Appendix), shows that to this percentage of lunacy we may fairly add a large percentage of the other causes as being indirectly occasioned by drink (heredity

Mr. Mulhall, the world-statistician, in his contribution on *Insanity, Suicide, and Civilization*, to the *Contemporary Review* (June, 1883), scouts Lord Shaftesbury's estimate, but admits that insanity in England caused by drink amounts to nearly one-third of the total insanity of the British kingdom; besides which, he numbers 25,800 idiots as owing their condition to drunken parentage.

Dr. Gilchrist's testimony.

Dr. Gilchrist, Medical Superintendent of the Crichton Royal Institution, Dumfries, which has an average of some five hundred inmates yearly, stated before the Lunacy Commission of 1877 that the larger proportion of dipsomaniacs are "the most hopeless, in fact, of all cases of insanity; they are constitutionally defective."

Mr. Heaton, one of the Commissioners of Lunacy, recently mentioned to me a case of a brilliant lady who had now for the thirtieth time been brought to the asylum insane from drink.

In the above-mentioned article Mr. Mulhall also makes this peculiar statement:—

"No one ever yet went mad from wine, any more than from eating cabbage, although the ancients had that impression.† It is when nations discard the use of wine for stronger stimulants that insanity spreads devastation among the masses."

French statistics of deaths for 1883 show that in three French provinces, whose population was not one-tenth of that in five others, but whose consumption of drink was three times as great, there were 140 suicides, while in the other five departments there were only sixteen!

As at least 20 to 28 per cent. of the insanity in French asylums is alcoholic, and as wine is the chief drink of the Frenchman, the question is—was it wine or cabbage?

Mr. Hoyle on alcoholic lunacy in England and Wales.

In a letter to the *Times* (September 5, 1883), William Hoyle says, "The returns of lunacy show that its increase has been even greater than that of crime. In 1852 the numbers of lunatics in England and Wales were 21,158; in 1881 the numbers were 73,113."

over one-half), and that therefore Lord Shaftesbury's report is not likely to prove an exaggeration when this subject has received even more close scientific investigation.

† And worse—"Δις κράμβη θάνατος." Cabbage twice is death!

Dr. T. S. Clouston,* in his lecture on *The Effects of the Excessive use of Alcohol on the Mental Functions of the Brain*, delivered to the students of the University of Edinburgh (December 19, 1883), said, "We know as a statistical fact that from fifteen to twenty per cent. of the actual insanity of the country is produced by the excessive use of alcohol. In that case, as we have about one person to every three hundred in the population insane, it follows that one person in every two thousand of our people, counting men, women, and children, become insane, and deprived of their reason, of their power of action, of their power of enjoyment, and of their personal liberty from this cause. This makes about 17,500 persons at any one given time in the British Empire who are so incapacitated by reason of mental alienation, produced through the excessive and continuous use of alcohol. These people are as good as dead while they are insane; they do no work for the world or in the world, and all that makes life worth having to them, they are deprived of. In these cases you have got to the acme of the bad effects of alcohol on the mental functions of the brain; you have arrived, as it were, at the worst that alcohol can do to a man's mental functions, and you will all admit that it is a bad enough result, and it occurs in the large number of cases I have mentioned.

"But you must remember that these numbers are merely of those so well known as to be available for statistics, merely the registered persons who have been so ill as to have been sent to asylums through the excessive use of alcohol. For every one of these who had become really insane, there are no doubt a large number who have become partially affected in mind, but not to such an extent as that it has been necessary to deprive them of their liberty, but who, nevertheless, are affected in mind through the excessive use of alcohol to some extent, and who are many of them partially insane."

And W. J. Corbet, M.P., in a striking paper, *Is Insanity on the Increase?* (*Fortnightly Review*, April, 1884) says that after being engaged "for many years, and under special circumstances, in studying the statistics of insanity,

* Physician Superintendent of the Royal Edinburgh Asylum at Morningside, the largest insane asylum in Scotland.

I have reluctantly come to the conclusion that facts and figures establish clearly the progressive growth of the malady." He summarizes his facts and figures in the subjoined table :—

Date.	Country.	No. of insane.	Population.	Ratio of insane per 1000.
1862	England	41,129	20,336,476	2·
	Ireland	8,055	5,798,967	1·
	Scotland	6,341	3,062,294	2·1
	Total	55,525	29,197,737	1·81
1872	England	58,640	23,074,600	2·54
	Ireland	10,767	5,368,696	2·04
	Scotland	7,606	3,339,226	2·26
	Total	77,013	31,782,522	2·41
1882	England	75,072	25,798,922	2·90
	Ireland	13,444	5,294,436	2·54
	Scotland	10,335	3,695,456	2·80
	Total	98,851	34,788,814	2·8

And thus comments thereon: "It is singular to note that, save that the ratio of insane to sane is greatest in England and least in Ireland, the conditions throughout are so alike as to be almost identical. The actual growth of numbers is continuous and regular, as if influenced by some inscrutable law; there is a steady unchecked current of increase, in accommodation, expenditure, numbers, and, strangest of all, in 'cures.' It would be only wearisome to enter more fully into statistical details; any one who wishes and has leisure can scrutinize them for himself. The plain fact stands out, however others may try to disguise it in words, that in the brief course of two decades the insane in the three kingdoms have nearly doubled in number, in spite of the most elaborate and costly means provided to cure them. There is, moreover, another alarming feature, in that we evidently do not yet know the worst. The ominous words, 'inadequate accommodation' and 'increase

of provision,' run through the whole series of reports from beginning to end."

After saying that alcohol is a chief cause in the production of insanity, and having quoted the already mentioned statement made by Lord Shaftesbury before the Select Committee, Mr. Corbet says—

"I go a step further, and hold that there is abundant evidence to prove that to dissipation, drunkenness, and moral depravity, either directly or consequentially by transmission to the next generation, is to be charged an immense proportion of the annual increase of lunacy. No person of authority, I think, will be found to deny that evil and corrupt living in the parents bears fruit in an unhealthy state both of body and mind in their offspring. In the lower animals the transmission not only of generic qualities, but even of individual singularities, is a familiar fact; so with mankind it is not to be expected that a pure stream will issue from a polluted source; and how foul and corrupt that source must be, any one who sees the habits of the swarms of unfortunate creatures who nightly crowd the streets of any of our great cities may determine for himself. . . . It is said that people nowadays are impatient of restraint, and betray a tendency to abandon all attempt at self-discipline and to yield to every impulse, whether good or bad. If true, it is sad indeed, for it is, and from time immemorial has been, an indication of national decay. The great empires of old perished, not from sudden and violent convulsions, but from the moral degradation of their people, from internal rottenness amounting to national insanity. *Quem deus vult perdere prius dementat.*"

Sanger on alcohol as a cause of prostitution.

In Sanger's *History of Prostitution, its Extent, Causes, and Effects* (New York, 1858), we read—

"Apart from the drinking system, which I believe to be the most prolific source of prostitution in Britain, the following may be stated as among the principal causes: one-fourth from being servants in inns and public-houses and beer-shops, etc. Were the disuse of alcoholic drinks, except under medical treatment, to become general, in six months we should be rid of prostitution by at least one-half." *

* In the House of Commons' Committee on Drink (1834) it was

Summary of the report on drink laid before the Belgian Chambers by Frère-Orban in 1868.

In a summing up of the general results brought about in this country (England) by drink, I can hardly do better than quote the results summarized in the voluminous report on drink laid before the Belgian Chambers of Representatives by the then Minister of Instruction, Frère-Orban (Brussels, 1868), in which the following facts are given as the drink results for England :—

1. Nine-tenths of the paupers (of whom, according to Hoyle, there were over three and a half millions in 1881).
2. Three-fourths of the criminals.
3. One-half the diseases.
4. One-third of the insanity.
5. Three-fourths of the depravity of children and young people.
6. One-third of the shipwrecks.

As to the condition in Belgium, the London *Daily News* (March 8, 1884) says :—

"A statement just issued by the Belgian Patriotic League against Drunkenness thus sums up the present aspect of the great drink question in Belgium: The number of public-houses in that country, which was 53,000 in 1850, had increased to 125,000 in 1880, and is now 130,000. The number of suicides during the last forty years has increased 80 per cent., the number of insane 104 per cent.; of convicts 135 per cent. Of the workmen who die in the hospitals 80 per cent. are habitual drunkards. The conclusion arrived at by the league is that the Belgians are the most intemperate people in the world."

§ 67. As to the United States, Mr. H. A. Thompson read an able paper at the Melbourne International Conference, 1880, in which he said—

Dr. Edward Young on the annual drink bill of the United States.

"Dr. Edward Young, chief of the Bureau of Statistics, Washington, estimated the cost of liquor to the nation in 1867 to be about 600,000,000 dollars. The estimate should be much greater now. Dr. Hargreaves, in *Our Wasted Resources* (New York, 1876), makes the cost in 1872 to be 735,720,048 dollars. Add to this direct cost the consequential cost, and we have a drain upon the nation annually of 1,500,000,000 dollars. Upon the basis of Dr. Young,

stated that at a dinner-party where the guests were nearly all distillers, one of them gave this toast—"The distillers' best friend, the poor prostitutes of London!"

the cost of intoxicating beverages in the United States was *one-sixth* of the value of its manufactures, which in 1870 were 4,232,325,442 dollars; *one-fourth* of all the farm productions and additions of stock in that year, valued at 2,447,538,658 dollars. All the slaughtered animals, home manufactures, fruit products, market garden and orchard products, which were in value 527,242,403 dollars, were 92,182,707 dollars less than the cost of our nation's drink bill. In the same year our drink bill was 145,621,273 dollars more than the value of all furniture and house fixtures . . . which were valued at 473,803,837 dollars, and of all the articles of wear, including boots and shoes, hats and caps, hosiery, etc., manufactured in the country. Again, the value of all the food preparations of 1870 was 19,059,539 dollars less than the cost of the nation's drink bill. We are shown by the same author that the cost of liquor for ten years is nearly *two-thirds* of the assessed value (9,914,780,825 dollars) of all the real estate in the United States; while the assessed value of all the personal property (4,264,205,907 dollars) is but little more than *two-thirds* of our drink bill for ten years."

Mr. Powell, of New York, on the liquor industry of the United States.

And at the Crystal Palace Temperance Jubilee (September, 1882), Mr. Powell, of New York, read a paper of the same import, stating that—

"There were in 1881, 5210 distilleries. These consumed 31,291,146 bushels of grain, with an aggregate production of 117,728,150 gallons of proof spirits. For the fiscal year ending June 30, 1882, the total amount of revenue to the National Treasury from distilled spirits was 69,873,408.18 dollars; from fermented liquors 16,153,920.42 dollars. The total beer production for the same period, as reported to the Internal Revenue Department, was 16,952,085 barrels. A brewers' authority gives the number of breweries at 2830, and estimates that there are 1,681,870 acres of land under cultivation for barley and hops. The author of *Our Wasted Resources* gives the annual liquor bill of the United States at 735,000,000 dollars. In 1880, according to the record of the Internal Revenue Department, there were of wholesale dealers in distilled spirits, 4065; of retail dealers, 166,891; of wholesale dealers in fermented liquors, 2065; of retail dealers, 8952; an aggregate of both wholesale and retail dealers in both distilled and fermented

liquors of 181,973. Counting 1000 to a regiment, we have a liquor-selling army of 181 regiments, commissioned by the Government of the United States to perpetuate the kingdom of unrighteousness and to obstruct the onward progress of the temperance reform."

A recent number of the *National Temperance Advocate* of New York gives the following summary of liquor revenue in the United States :—

The *National Temperance Advocate* of New York on the liquor revenue of the United States (1863–1882).

Fiscal years ended June 30.	Receipts from distilled spirits. Dollars.	Receipts from fermented liquors. Dollars.
1863	5,176,530	1,628,934
1864	30,329,149	2,290,009
1865	18,731,422	3,734,928
1866	33,268,172	5,220,553
1867	33,542,952	6,057,501
1868	18,655,631	5,955,769
1869	45,071,231	6,099,879
1870	55,606,094	6,319,127
1871	46,281,818	7,389,502
1872	49,475,516	8,258,498
1873	52,099,372	9,324,938
1874	49,444,090	9,304,680
1875	52,081,991	9,144,004
1876	56,426,365	9,571,281
1877	57,469,430	9,480,789
1878	50,420,816	9,937,052
1879	52,570,285	10,729,320
1880	61,185,509	12,829,803
1881	67,153,975	13,700,241
1882	69,873,408	16,153,920
Total dollars	904,863,756	163,130,728

The *Evening Standard* (February 10, 1883), quoting from the just issued report of the National Bureau of Statistics for the United States, says—

London *Evening Standard* on liquor consumption in the United States.

"The consumption (not manufactured) of distilled spirits during the years 1878, 1879, 1880, 1881, and 1882 respectively, was 57,111,982, 54,278,475, 63,526,694, 70,607,081, and 73,556,036 gallons. For the same years the consumption of wines, native and foreign, was 19,812,675, 24,532,015, 28,484,428, 24,231,106, and 25,628,071 gallons. But the chief increase has been in malt liquors, which aggregated 310,653,253, 345,076,118, 414,771,690, 444,806,373, and 527,051,236 gallons.

As to the drink traffic in New York city, the *New York*

The *New York Herald* on the number of rum-shops in New York City.

Herald (February 26, 1883) comments to the effect that there are over ten thousand rum shops in the city of New York, or one to every 125 inhabitants, one to every 25 families. "Various shops and stores where bread, meat, and groceries can be procured foot up 7326; in other words, there are 2749 more rum shops than food shops in New York city." But, as regards London, as long ago as 1835, Mr. Mark Moore, in his evidence before the Parliamentary committee on drink, stated that the number of places for the sale of distilled spirits exceeded that of bakers, butchers, and fishmongers together.

Dr. Howard Crosby on the same subject.

In a lecture delivered also in 1883, on the *Glory and Shame* of New York, Dr. Howard Crosby said that there were 12,000 grog shops in New York city, or one to every hundred inhabitants.

The condition of Birmingham in this respect; the evidence of Mr. J. Chamberlain, M.P.

But Great Britain furnishes figures equally deplorable. For example, at the annual licensing sessions held at Birmingham, September 6, 1883, deputations from the Good Templars and the United Kingdom Alliance "presented memorials against the granting of new licences, and urged the magistrates to withhold others which were not absolutely necessary. Birmingham, it was stated, had 2240 licensed houses, or *one to every* 35 *inhabited houses;* and the Right Hon. J. Chamberlain, M.P, in his evidence before the Lords Committee on Intemperance (1879), stated that "out of seventy large towns, fifty have more public-houses than Birmingham."

The *Pall Mall Gazette* on the number of public-houses in proportion to the inhabitants of the various States of the Union.

Concerning public-houses in America, the *Pall Mall Gazette* for May 4, 1883, furnishes the following statistics:—

"In Nevada there is one drinking saloon to every 65 inhabitants; in Colorado, one to every 76; in California, one to every 99; the rest of the States supplying the following number of inhabitants to each drinking saloon:—Oregon, 176; New Jersey, 179; New York, 192; Louisiana, 200: Ohio, 225; Connecticut, 246; Massachusetts, 256; Delaware, 258; Pennsylvania, 263; Rhode Island, 266; Illinois, 267; Maryland, 293; Wisconsin, 304; Minnesota, 311; Missouri, 337; Michigan, 350; New Hampshire, 376; Iowa, 377; Indiana, 380; Kentucky, 438; Nebraska, 487; Tennessee, 525; Texas, 549; Arkansas, 554; Alabama, 608; Georgia, 612; Florida, 653; Mississippi, 654; Virginia, 693; North Carolina, 708; Maine,

791; Vermont, 812; West Virginia, 817; Kansas, 876; and South Carolina, 708. It thus appears that the twelve States in which there were fewest drinking saloons were all Southern, except Vermont, and leaving out, of course, Maine and Kansas, in which States drinking saloons are prohibited by law."

Dr. Lee on alcoholic insanity. Dr. Wilkins on the same.

Dr. Lee, of Philadelphia, in *Report of Insanity* (1868), gave for the year 1860 one insane person to every 1305 inhabitants, and in 1868, one to every 700. In his *Insanity and Insane Asylums* (Sacramento, 1872), Dr. E. T. Wilkins, Commissioner in Lunacy for the State of California, states (p. 211) that he is of opinion intoxication is a far mightier cause of mental diseases than all other causes put together.

Dr. Mason's statement.

In *Alcoholic Insanity* (New York, 1883), Dr. Lewis D. Mason says, "In a study of 600 cases of inebriety treated at the Inebriate Asylum, Fort Hamilton, I found that 166 persons had 309 attacks of alcoholic mania in some form at various times during their periods of alcoholic addiction. In the annual report of the New York State Lunatic Asylum for 1883, of the 412 cases tabulated, in 32, or in a little less than one in 13, 'intemperance' was stated as the exciting cause."

The last United States census shows that there has been a most alarming increase in the number of lunatics and idiots during the last decade; while the population has increased by 30 per cent., the increase of the insane is given as a little over 155 per cent.

Dr. Mann, of New York, on alcoholic insanity.

In his *Manual of Psychological Medicine* (New York, 1883), Dr. Mann says, "It is impossible to estimate the complex influences that intemperance exerts in the production of insanity. All observers agree that it is intimately connected with, and is one of the main exciting causes of, insanity. . . . Many superintendents of foreign asylums have estimated the admissions from intemperance at 25 per cent. or higher, including not only the proximate but remote cause of the disease. This percentage will be largely increased if we take into account the great number of cases in which intemperance of parents causes the insanity or idiocy of their offspring. Dr. L. Lunier estimates that 50 per cent. of all the idiots and imbeciles to be found

in the large cities of Europe have had parents who were notorious drunkards."

Maxime du Camp on the drink-petrolomania of Paris during the siege.

And in the *Revue des deux Mondes* (1872) Maxime du Camp says that the frequency of mental diseases in Paris is very largely attributable to the insobriety which has enormously increased there during the last two years;—that in the siege the workman drank more than he fought, and under the Commune drink was given out to make them fight; that in nine months' time Paris consumed five times as much alcohol as formerly in one year, with the results of prevalence of delirium tremens, and the destructive outbreak of petrolomania.

Dr. Baer on the deterioration in the French army caused by drink.

Speaking of the general passion for drink in France, Dr. Baer, in his *Alcoholismus* (Berlin, 1878), deplores the effect of this evil on the nation, and states that "unprejudiced and highly intelligent men attribute the severe defeats in the last war with Germany in no small degree to the disorder, want of discipline, and incapability of resistance which has been produced and nurtured in the French army by the predominant craving for drink in both military and civil life.*

"During the siege, Paris was seized by a mental epidemic of acute alcoholism, and alcoholism is one of the principal sources of the deeds of abomination and shame occurring with the rising of the Commune."

Official statistics show that in 1882 there were 13,434 admissions to the French asylums. Of these, 10,184 were new cases. The total number treated in these asylums during the year was 58,760, of whom 31,000 were women and 27,000 were men; and it is estimated that a large

* In his *Hereditary Alcoholism* (Medical Thesis, Paris, 1880), Dr. Gendron says—

"If we require proofs of the effects of alcoholic heredity on stature and muscular strength, we surely find them in the recruiting registers, which show that certain districts where alcoholism prevails cannot furnish the required average of conscripts. The arrondissement of Domfront, in Normandy, consumes proportionately the largest amount of alcohol; in that arrondissement the canton of Pussais and the commune of Mantilly especially are notable for excessive drinking; even if all the able-bodied men were taken in Pussais, the recruitment would still be insufficient, and Mantilly is in this respect below all other communes."

proportion of this yearly augmenting increase is due to alcoholism.

Dr. E. Lanceraux, in his essay *On Alcoholism and its Consequences* (Paris, 1878), charges alcoholism with being a principal cause of the decrease in the population of France and other countries. "Assisted by tuberculosis," says Dr. Lanceraux, "alcoholism has long been one of the principal causes of decreased population in many quarters of the world. These two causes united have contributed much more than iron or fire to more and more reduce the number of natives of North and South America. To this also is due the progressive disparity among the inhabitants of a great number of islands in the Pacific; notably the Marquesas, Sandwich, Tahiti, and others. But we need only to observe what is going on in our own midst to recognize alcohol as a cause of depopulation. Many statisticians and economists are justly alarmed at the decrease in population of one of the most favoured provinces in France, and each furnishes his own explanation of the fact. If we examine into the matter we find that in Normandy, where a great quantity of brandy is distilled, alcoholism is most rampant. The notion prevails there that it is necessary to give infants wine and liquor in order to strengthen them. This pernicious habit, together with the general alcoholic excesses so common in Normandy, undoubtedly form one of the principal sources of the decreasing population of this rich province."

Dr. Baer, of Berlin, on alcohol and insanity in Prussia.

In a recent address before the National Association for the Protection of the Insane,* Dr. Baer said—

"In comparing the number of drinking saloons in the different provinces of the kingdom of Prussia with the number of insane, both in public institutions and in private families, as gleaned from the census report of 1871, I was enabled to show conclusively that everywhere where the number of drinking places, *i.e.* the consumption of alcohol, was the greatest, the number of insane was also the largest. Without doubt, to my mind, it is in alcohol that we must look for and will find the most potent cause of the development and spread of mental diseases."

* *American Psychological Journal* (quarterly), Philadelphia (Oct. 1883).

Dr. Finkelburg, of the Russian Health Commission, on the same in Russia.

The *Quarterly Journal of Inebriety* (Hartford, Connecticut, U.S.), October, 1883, says that, "According to Dr. Finkelburg, member of the Russian Public Health Commission, alcoholic liquors cause over two-fifths of all the insanity, and five-eighths of all the criminality.

CHAPTER XI.

ORIGIN AND CAUSES OF ALCOHOLISM.

§ 68. It seems probable, from the great sum of testimony —so probable that it may be assumed as certain—that there was a time when the evil habit of alcoholic intoxication was unknown to man. According to Dr. Baer, many races still existing, or only recently extinct, had no knowledge of intoxicants.

Dr. E. G. Figg, in his paper *On the Physiological Operation of Alcohol* (*Temperance Spectator*, London, 1862), cites the following examples:—

"The Portuguese and other Arctic navigators testify to the ignorance of the frigid zone in this particular. Columbus and his Spanish successors described a race more beautiful and refined than aborigines generally are, amongst whom no trace of an intoxicant existed. The French gave the same verdict as to the Northern American continent, and the English, under Cook, so far as Australia and the Polynesian islands are concerned, corroborate the same fact. In the penetration of Africa from its eastern or western coast, it has not been seen save as an article of importation. In fact, in every locality *first* developed to civilized enterprise, alcohol in any of its varieties was unknown. Those describing the early habits of the Calmuc Tartars will contest this statement, insisting that the favourite beverage of those savages was a fermentation of the milk of mares. The truth of this assertion conceded, must not the educated chemist at once understand that the fermentation referred to was merely the development of lactic acid by transposition of the saccharine element in the milk? In his description of the Islands of the South

Pacific, Melville mentions the existence of a liquor affirmed to be an intoxicant from his own observation of its apparent effect on those who partook of it. The mode of preparation, however, refutes the idea that it was a fermented fluid. It was simply the expressed juice of a herb which was drunk before fermentation could have been realized. Independently of this, we have the positive testimony of John Williams, that the American traders were the first to introduce intoxicants, and the earliest inebriators of these Pacific Islands."

Origin of the mischief.

But in the most remote historic period the use of intoxicants had become comparatively common, and, with the knowledge we now possess of the subtlety and stealthiness of these poisons, we can easily see how individuality was undermined by their use, and the natural passions changed into insatiable demands, before man really understood the origin of the mischief. And as his awakening to these moral effects probably took place only when the worst—the weakening of his power to resist—had been accomplished, he invented, as moral weakness always does, excuses for his excesses.

He denied the evil results of which he was both the illustration and proof. He ascribed a host of excellent effects to alcohol. When these benefits failed to appear, and harm alone—harm that could not be hidden—followed upon his indulgences, he charged the trouble to Providence, or to the blind forces of nature, and posed as the victim of mysteries with which he could not hope to contend.

These pleas are made, this self-deception is practised still; yet it is man who put himself into this pit, and now at last he knows that it is so, and that it is he who must lift himself out.

By his first ignorant indulgence in intoxication, man placed himself in a continuity of circumstances which were certain to drag the individual and the race to lower and lower life-levels; not necessarily as regards outward appearances, refinements, and comforts—civilization has made marvellous progress in these directions—but as regards the highest purposes of our being here and inhabiting bodies at all, as regards our discovering and obeying those laws of eternal truth which now and then in all of us force, if only momentary, recognition. For the light of

the Crown held vainly over the head of the man with the muck-rake does sometimes penetrate with a moment's flash the rubbish we grope in.

§ 69. The development of the race is like that of the individual: it begins in both with an eager desire to be happy and an eager search for the means of happiness.

Likeness in the development of race and individual. The individual searches for happiness.

In the baby this desire is satisfied with plenty of milk, warmth, soft couching, and slumber. His mother's bosom, and the bed where he lies with her, make his world.

A little later, the horizon widens to the walls of the room and the vaguely wondered-at shining spaces which the windows show. He finds that it hurts to fall. The result is instantly unpleasant. He becomes cautious.

He discovers that raisins taste nice, that sugar is delicious. He eats of these voraciously. The result is immediate pleasure; and when nausea and headache follow, it is the nurse or mamma who is to blame, not his own gluttony. By the time he has learned the last fact, the raisin and sugar-eating habit is formed, and stands mightily in the way of reform. The pleasure is sweet and immediate. He tries to assure himself that the pain coming after is due to some other cause; to anything he is willing to give up, rather than to the one thing he is unwilling to resign.

He is still a child, to whom the self of the senses is all the self and all of happiness or unhappiness that exists.

As he grows older, various things—the widening of his visible world, the strange interest felt in his own growth, the influence of companions and circumstances, the care and guidance of his parents, etc., etc.—have all had their effect on his development; he has learned some self-restraint, gained some little knowledge of himself, of his relations to others; and, if his circumstances have been very favourable to moral growth, he begins to see that the senses do not compass the whole meaning of happiness, and learns that they are not even a chief part of it, that happiness lies not in having good things for himself, but in being worthy to have good things, whether they come or not; by desiring, above all things, the rights and happiness of others; by doing heartily all he can to bring about general happiness—universal happiness; and thus actually, genuinely, and really being happy himself.

The child, grown to maturity in this way, leads a large

life and a complete life, whatever his condition or position may happen to be, because he irradiates real happiness. He is a centre from which it rays out, wherever that centre be placed; and this irradiation has a widening effect, like that of the circle around the stone cast in the water: it never stops short of the two shores of life—the shore of the beginning and the shore of the unending.

Self-denials for the sake of others are his dearest indulgences, and as far removed in essence and effect from the morbid, anchoritic, nobody-benefiting sacrifices of St. Simon Stylites and his ilk as the shower of sweet spring rain is different from the outbreak of a sewer.

He will not think for one moment of the pleasure to him of an otherwise perfectly innocent indulgence, if his having, means temptation and struggle for any other. The happiness of the senses, of self, has given place to the only true or lasting happiness, the happiness of Abou Ben-Adhem, who "loved his fellow-men!"

But if, on the other hand, the child is not well trained, if his circumstances are those of the foolishly indulged and pampered household pet, however talented and clever he may be, and whatever else he may learn, he grows up grossly and fatally ignorant of what he is here for, of what is due from himself to himself, of what is due from him to others. He is a centre from which radiates discontent, greed, tyranny—towards which must flow constant tribute. He will deny himself nothing that he desires—no, not even for his own good, much less for the rights and happiness of another. He is lonely, because he has spoiled himself for his own society; and over those who *must* be with him he exerts an influence which, however it may stir disgust, also contaminates and gradually drags them into more or less real fellowship with him; for the spectacle of selfishness, continually triumphing in its exactions, is one of the most deteriorating in its effects upon those who must constantly behold it. And especially great is the ascendency of this kind of evil with the individual and with society, when it is accompanied by the intellectual flashes and eccentric humours, the shallow, sudden generosities—purely for sensation sake, but cited as virtues—which convivial circles so much affect.

As with the individual, so with the race. In its infancy

it found the taste of alcohol as the babe found the sugar —sweet. The pain that followed, it would not heed, and when at last forced to heed by overwhelming evil results, it sought, like the sugar-nauseated child, to secure itself in its now all-enthralling habit by evasions and specious reasonings. The race searches for happiness.

Later on, as the race grew into knowledge of things good and evil, we have seen how, in spite of great general advancement in many things—in spite of enormous strides in all directions of scientific, philosophical, artistic, and material knowledge—in spite, too, of what steam and electricity have done to melt and forge the nations, tribes, and peoples into one brotherhood—a fraternity in no way so cruelly betrayed as in its mutual upholding and guiltiness of this deadly universal vice—in spite, too, of single instances of the noblest individual heroism and self-abnegation, of decades here and there in which national life and character have shone with extraordinary lustre of inspiration for all succeeding time—still we find that the habit of alcoholic intoxication which the race formed in its childhood has been suffered to grow with its growth, and so poisons us in our maturity that we do not, as a race, yet comprehend what happiness is, but still continue to mistake the temporary exaltations of alcohol, and other sense-excitants, for real glimpses of that highest scope and regnancy of being from which it shuts us out and down.

Reasoning from the past, we may feel sure that the instinct of progress, the laws of development, of evolution, which are coeval with man, must be part of his essential nature so long as he exists. The eager desire to be happy, the eager search for happiness, will go on.

And we may comfort ourselves at the outset with the certainty that this desire, this search, this resistless outreaching impulse of man must in itself be good, for it is part of man as God made him. By it God is perpetually calling to man, "Seek Me, find Me, and in Me find eternal life, eternal joy!"

But what concerns us instantly and mightily is to find out what to seek, and how to seek it.

A little child stands alone at night in a great forest. He gropes for light, even though not quite understanding what light is or what it can do for him. A bright star, Both mistake the *ignis fatuus* for the star.

twinkling in the sky just over his father's roof, sends a long white ray—straight as truth is straight—by which the little one, if he only sees it, can go directly to his father's door. But at the same moment a glow-worm, flitting and flashing before him, seems to his unlearned eye a nearer and brighter light, and he stumbles after it through bog and mire. At moments he clasps it in delight, but again and again it eludes, it escapes, or, being clutched, flares up and fades out; while the deluded child, bruised and cold, goes ever farther and farther from home.

He was right to search for light—the tiny immortal spark within him made such search natural and certain. But he lacked wisdom to distinguish between the phantom-flame of the will-o'-the-wisp and the pure perennial ray of the star; and when the alternations of feverish triumph and bitter disappointment had taught him his mistake, he was exhausted—he lacked strength to return—and besides, the star had grown to look very far away and dim, for the fitful glimmer he followed had weakened his eyes, and the habit of chasing it drew him on till he sank to rise no more.

First gropings toward knowledge by means of the senses.

So with man in the earliest stages of his development. The world of sensation was the first in which he found himself. His reasoning faculties first applied themselves here, and held back his spiritual perceptions. What felt good, what felt bad; what he wanted, what he didn't want; what he liked to do, and what he didn't like to do; these things guided him. He did not analyze second, third, and fourth results.

And in this stage of being, his search for happiness instead of leading him out and up in life, chained him to himself. He was his own horizon, his own zenith and nadir; for self-seeking—that is, the effort to please and gratify only one's self—can only go on within the life of the senses. Pleasurable sensations, physical delights; separated from all thought or care for the rights and delights of others; to be gained at the expense of *them*, at any cost, so that they *are* gained; these have been and are the self-seeker's ideal of happiness—to him the glow-worm inevitably obscures the star.

Alcohol believed to be a great

And in alcohol he believed he had found the crowning agent for producing a strange pleasure of its own, which

had also power to enhance and vary kindred pleasures indulged in with it.*

agent for producing happiness.

By this undue development of the senses, the normal appetites, tastes, and passions of man were transformed into the various lusts of the flesh; the lust of acquisition, arraying him against his brother in bloody contests for power, for possessions, making him covet Naboth's vineyard and Naboth's wife; the lust of ease, making him deaf to the cry of the down-trodden and impoverished, lest to listen should prove troublesome; the lust of gold, that Shylock lust whose sordid outcry, "Oh, my ducats, my ducats! Oh, my daughter!" shows to what level the lust of gold can sink the most sacred ties of love; the lust of the eye, which turns men and women into birds of prey, and manhood and womanhood into moral quicksands, where modesty, love, and the divine purposes of sex are irrecoverably degraded and lost.

Natural appetites and passions changed into unnatural lusts by the abnormal development of the senses.

But while this was going on through the ages, the spiritual and mental powers of man were also slowly unfolding and beginning to struggle through the meshes woven by the senses; beginning also, though at first but dimly and fitfully, to assert their sway as masters in the stead of the usurping senses, and to find that these, in their headlong, egoistic, untutored search for happiness, had produced conditions wholly foreign to it.

Spiritual and mental progress under these conditions.

* Of course, I do not mean that the senses are in themselves coarse or degrading, or that all self-seeking is plainly and vulgarly manifested, as the foregoing might seem to imply. The senses are what they should be, when bearing their proper relation of capable and docile servants to the rounded individuality of man. But when they lead and control, they lose the invaluable qualities of the faithful servant, without gaining one quality by which they can fitly lead. And the man who abdicates to his senses, descends from the throne where God placed him, and submits his head to his own heel. This is the condition of him whose search for happiness begins and ends with self; and it is an openly low or apparently refined condition according to the great differences in the temperaments, personal conditions, and surroundings of men. And alcohol—more than all intoxicants—has paramount power to bring about this surrender to the senses; for, as is well known and indisputable, passions of which man is master in a sober state, alcohol will not only fire beyond his control, but reinforce with others that never awakened in sobriety, and make him do scores of shameful things of which, but for its influence, he would be utterly incapable.

The two great factions into which this development has divided mankind.

Egoism and sensuality had put the world "out of joint," had dismembered it, as it were, into two great factions—the graspers who succeed, and the graspers who fail.

The graspers who succeed.

The first are the few, but the all-powerful in having secured more than the lion's share of this world's treasures and possessions, and the power to continue to gain and hold these; in having absorbed to their own service the results of the general total of physical and mental labour; and who have, by the processes thus resulting, as well as by the result itself, so removed themselves from the other faction that, though they know it exists, they do not understand the elements of which it is composed; are cold to its necessities, deaf to its claims, stone-blind to their own responsibilities toward it, and therefore fatally indifferent to, fatally ignorant of, the tragedy to which it tends.

The graspers who fail.

The other faction, the graspers who do not succeed—who, in the same self-seeking struggle for an *ignis-fatuus* happiness, have been driven to the wall—they are innumerable, and ignorantly hate and envy those whom they fancy have attained the object of the unequal conflict, not seeing that victory which consists in satisfaction of self and the senses is really a worse defeat than their own, so far as true happiness is concerned; for it is of the rich man that it is written, he shall not easily enter the kingdom of heaven, while the poor man is assured he shall, if he only will, find that kingdom within him.

Yet perhaps these—the poor, the depressed—see a little further into the portent of this unnatural struggle; they have so little to hoard, so little treasure to guard, that they hoard their own sense of wrong—not always seeing where blame is due—and count over the coin of disappointment which gluts the mints of resentment and despair.

Alcohol a powerful agent in restricting man to the life of the senses.

In this tension, neither the rich nor the poor are happy, neither are blameless. Both feel the undying yearning which selfishness has done its utmost to destroy; life, exhausted in the intermittent, swiftly cloying pleasures of the senses, beats wearily upon worn-out strings that scarcely can any longer vibrate. And one means all-powerful in producing and protracting this delusion, a means which more than any other has misled man's search, and has done more than any other to place and keep him in the world of the senses, in spite of spiritual

and mental progress, a means within the reach of all, clamoured for by all, and to be had in abundance by poor as well as rich, is alcohol.

Dr. Crane on *The Arts of Intoxication.*

In his profound work, *The Arts of Intoxication* (London, 1877), the Rev. Dr. Crane says—

"He that gave our nature its depths did not design that those depths should be stirred by trifles. He gave them, not for luxury, but for utility in the great aim and work of life. He never intended that the deepest, richest tones of our nature should be evoked by every careless touch of the keys. Human wants, human affections, the demands which belong to time, and the infinite motives which come to us from the eternal world are all designed to touch each its appropriate spring. The exalted enjoyments of devotion should be richer, sweeter to our souls a thousandfold than all worldly success or worldly pleasure. And every right affection, every rational hope and desire, is meant to be a motive power, and, according to its value, to stir the heart and breathe into the soul inspirations which lend light to the eyes, make the cheek glow, send the blood bounding along its channels. . . . Man has made a fearful discovery, not how to produce, but how to imitate these true exaltations. He has learned how to counterfeit the golden coin with which God pays the worthy labourer. It has been discovered that certain poisonous drugs, differing in the kind and degree of their effects, are potent to lay a spell upon soul and body; and, while every mental faculty is unhinged, and every physical power is benumbed, and the whole being rendered helpless and degraded, the abused body may lie steeped in sensuous enjoyment, and the abused mind be cheated with a seeming consciousness of unwonted activity and augmented force and brilliancy. And men have learned to covet the fleeting unnatural pleasures. For the sake of an hour of such fevered dreams man is willing to face the horrors of a return to realities which his guilty pleasures have despoiled of honour, peace, and virtue; is ready to pay the price of days of lassitude and gloom, and even of pain, remorse, and death."

True exaltation counterfeited by the fleeting excitement of alcohol.

Self-deception, then, has made man miss happiness—the happiness of the perfectly harmonious individual being and of the perfectly harmonized community of beings into which it was intended he should develop, and, by

Man's self-deception has made him miss happiness all round.

circumscribing him to the partial world of the senses, has made him miss the truth at every turn, in religion no less than in science.

In religion. In religion it has made him manufacture a God and a scheme of salvation by which he escapes all responsibility

In science. for his own being and doing. In science it has made him insist that the senses bound the entire world of scientific research and possibility; that what cannot be demonstrated by or to the senses has no existence; while, by the abnormal disproportionate development of the senses, the clue they might afford in a state of perfect balance with the other powers is lost.

An illustration of this. For example, let us imagine that a man has grown up without physical action; that he has for years been sitting in an artificial frame, which has locked all his muscles in perfect stillness, with the exception of his ankles and feet; that these have done all the motion, all the living, for the whole system, even to his having been fed through them by the process of cutaneous absorption; that, in this way, though having originally all the component parts of feet, they have lost all resemblance to feet as we see them in the healthy human frame; are distorted, unsightly, monstrous, incapable of bearing him up, their very size being part of their weakness for all the natural purposes of feet.

The head of this man is but a little knob, his frame puny and shrunken, he lacks all that ranks him with normal man, he lives only in his feet. If he were to be muffled and covered, so that all of him but his feet were entirely hidden, and a physiologist should then be called in to say, without help of any explanation, what the two objects were and to what manner of creature they belonged, he would be quite excusable if he did not know them as feet, or if, guessing so far correctly, he constructed anything but a man for the rest of the creature!

Change the picture and transfer the developmental excess to any other member, or organ, or set of functions; the result must always be equally false to nature and truth, because equally out of balance with them. The fault is not with the parts or powers excessively developed, nor with those lying arbitrarily dormant; it lies in the false method, the spurious process producing these.

What happiness is, and how alone it can be found.

Just as the framed man's feet lost all the fine interflowing curves, the subtle, complex elasticities which lend themselves to the miracle of walking, so the spirit and the mind of man, chained down to the special development of the senses—which should only know themselves through his controlling and aspiring consciousness of their real purposes—have been excluded from the realization of the exquisite happiness which God Himself cannot bestow until His child can conceive it; and of which man only first conceives when first he seeks the happiness of his kind, and learns that by this path only comes happiness to meet himself; and, in learning this, learns also not to seek it for its own sake, even though by the right way of first securing it to others, but to seek it for the sake of that blessing to others, by which it comes.

How is this proven?

Because when we seek happiness in this way we *have* it, serene, uncloying, rich, satisfying, constant, and this though we have nothing else that men call pleasant and good; while, on the other hand, in the height of physical, sensuous self-gratification, we are always conscious of the gnawing of for ever unsatisfied desire at the core of life, of vague yet deep disappointment and emptiness, and thus the goad of endless craving follows the ever-artificial supply.

And hence, with all our apparent advancement, we are to this day still writhing in fratricidal strife at the feet of insatiable false gods, and as man sought alcohol first for pleasure, thinking it happiness, so now we, wiser, but, alas! not stronger, drink to forget, and if we can to dream, instead of to know; for drink has proven like the iron frame which has suffered only the feet to grow.

Supplementary causes; explaining the power alcohol has obtained over mankind.

§ 70. The first cause of the hold alcohol has obtained upon man being that, in mistaking the gratification of the senses for the happiness he was born to seek and realize, he mistook alcohol for its great agent; the next, or supplementary causes—constituting very formidable reinforcements—may be classed as follows:—(*a*) the physical, (*b*) the psychical; the first relating to food and various luxurious indulgences, notably, the use of tobacco.

It is a generally recognized fact that what is called "high living," the use of highly spiced dishes, and the whole

range of epicurean habits provoke a desire for alcoholic liquors. This is largely due to the vitiation of taste and appetite, which sensuality in any of its forms must inevitably produce, and unnatural feeding not only impairs the taste, but by imposing too much labour on the stomach prompts it to call for irritant; and tobacco, although it acts to a certain extent as a counterpoison to alcohol, creates by its vitiation of both taste and smell, a demand for stronger tasting and stronger smelling foods, and these again, because of their indigestible character, call for an excitation of more than the natural supply of the gastric fluids. And thus it is seen that in the physical, as in the mental sphere of life, one wrong begets another, and all are linked in concentric circles that, like the lessening walls of the "*Iron Shroud*," press closer and closer until the victim is crushed.

The effect of high living and smoking in impairing taste, smell, and digestion, and thereby provoking a desire for strong drink.

The psychical causes may be divided into—(1) The force of example, because of the sympathetic unity of the race; (2) the force of habit, because of natural laws; (3) the force of hereditary habit; (4) the force of habit become instinct; (5) the force of habit-formed instinct become nature in a depraved sense.

The force of example because of the sympathetic unity of the race.

The fact that humanity has a common basis of understanding—if only that of signs—indicates a common bond stretching along the whole line of human consciousness. The reality of this bond is manifested in the tremendous power which example, habit, and custom have over us, and God's purpose in this bond is seen in the impossibility it creates, for man to happily and prosperously ignore — either as individual, community, or nation—the divine command to love our neighbour as ourself.

Plutarch on the force of association.

The force of example is tersely expressed in Plutarch's words: "If you associate with a cripple you will soon learn to limp yourself," and in the popular proverb, "One is known by the company he keeps."

That this teaching can be abused; that it can be cunningly turned into a defence for the grossest selfishness; can be made to bear false witness against Plutarch as one who would have unfortunates and victims generally abandoned to their fate; can be perverted into justification for never approaching the fallen and depraved,

making mercy and compassion intruders among the human virtues—does not affect its true force of warning against the kind of association and sympathy which depresses and weakens the sympathizer without cheering or benefiting the sufferer, while it does help to further pronounce the fact that *sympathy*, conscious or unconscious, sensible or sentimental, unselfish or self-seeking, powerfully, variously, and constantly affects our development. All progress hangs upon it, because only by this bond do we have to do with one another.

Were we separate—that is, insulated entities—we could not co-operate, we could not learn or profit from each other's mistakes or successes, we should not really be living in any sense in which as sympathetic beings we conceive of life.

Thomas Tryon on the force of example upon children.

Thomas Tryon, in his work *On the Method of Educating Children* (London, 1695), says of the force of example, "The Fear of God, Temperance, Cleanliness, and Frugality, are taught by precept and example, even as Arts and Sciences are. . . . If the Children see no disorderly nor intemperate Examples, but have the Representation and Character of the contrary Virtues continually placed before their Eyes, they will undoubtedly conform themselves to that Image."

T. Campbell or the influence and effects of habitual intercourse in daily life.

In his *Commentaries on Tobacco* (Sydney, 1853), T. Campbell says, "The habitual intercourse of persons, the communion of sentiments, unanimity of opinion, and the silent underworking force of imitation conspire to engender a sameness of ideas, a similitude of character among members of the same group, and these, extending from groups to communities, cemented by the ties of common privileges, unity of interests, and a common attachment to place of birth, probably form the groundwork of all patriotism.

The force of habit because of natural laws.

"Imitation is an essentially active energy in the constitution of man, and one of the elements of habit. In youth especially we copy something of every human action or manner presented to our observation. It is in constant operation in every stage of life, and is so potent that persons living long together will insensibly acquire a mutual resemblance in some points, so that it may be said all society is a school of design, and every individual is a

model for good or for evil to every other individual. Each takes his copy, too, with all the secrecy of profound unconsciousness, which enables the imitative faculty in man to operate on the mind with an energy so much the more sure and effective, engraining the lights and shades in the pattern of the moral copyright with almost indelible fixedness of colouring."

Conscious and openly acknowledged effects.

Besides the power of example which thus profoundly affects without our being directly aware of it, there is its openly acknowledged force. "Why should I not drink?" says the clergyman;* "the canon, the vicar, the bishop, drink. What they do, surely I may." "And as for me," says the common soldier, "I don't pretend to be better or wiser than our general, colonel, captain; they all take their glass like gentlemen, why not I?" "The master has his wines," says the working man, "why

* The *Daily Telegraph* (April 24, 1883) thus pertinently comments on the cases of Captain Robinson and the clergyman's son Beaumont:—

"John Joseph Beaumont's story is sad. Already, at twenty-six years, he is said, by his drunken habits, to have ruined his father, a clergyman of the Establishment, and forced him to resign a comfortable living. Appointed to a small office in the Inland Revenue, Beaumont was turned away because of his habitual insobriety; and now he passes his time between delirium tremens out of doors and convalescence in St. Pancras Workhouse. The law of to-day, unlike that of the past, does not recognize destitution, from whatever cause, as a punishable offence, and he is now at liberty to go on ruining his relations—provided that field be not already closed to his enterprise—contracting delirium tremens, and knocking for admission at the workhouse door, until, failing reformation, death cuts short his disgraceful career. Why men like Captain Robertson and Mr. Beaumont help to swell the score of life's failures is a mystery *beyond solution* (?). Both are apparently well-bred; both are more than ordinarily well-educated. They had chances given them. The ball was at their feet. Poets and publicists point to the examples of what are called self-made men as being wonderful. We hear of lads born in thatched cottages, and brought up at the plough's tail, yet pressing through to the front, seizing upon the prizes of life, and becoming wealthy in the mart, or renowned at the bar, in the senate, and the councils of the State. In point of fact, such thrice-ennobled representatives of the Peerage of Genius are natural products of civilized society. We are to watch for their advent and greet them with applause. Yet not they, *but the weeds and wasters, the broken captains and drunken pauper scholars, are the more truly remarkable phenomena of an age like ours.*"

shouldn't we have a glass of beer too?" "Don't preach to me," says the young man; "my father takes wine at dinner always, so did my professors at college. I don't care to be better than they."

Mr. Spurgeon on the responsibility of parents in the matter of drink.

In the *Sword and Trowel* (London, April, 1884), Mr. Spurgeon says—

"Children are taught to drink, encouraged to drink, and praised for drinking; the glass is even made a reward for good conduct. It will be little wonder if they grow up to equal and surpass their seniors, when precept and example are pointed by contemptuous jests aimed at abstainers. We have heard Christian people declare that if their children acquired a taste for strong drink it should be in after life, but they would not bear the responsibility of training them in it; and we have thought this to be true common sense. But what is that spirit which leads a professed believer in Christ to put the bottle to his neighbour's mouth, nay, to his child's mouth? What is that spirit which has induced some to trample upon the scruples of the little one, and exclaim in anger, 'I will have none of such nonsense. Are you going to teach your parents, and set up to be better than they?' Thousands of boys are the victims of Bacchus, for their fathers train them to take their share of beer; this is mostly among the working classes; but are there not too many in all ranks of society who in other shapes offer their children upon the altar of the fiery fiend? Let the careful parent think this matter over before he further countenances wine at juvenile parties, or at holiday festivals."

And thus both hereditary and acquired desires and habits are propped by the example of those whom we love and respect. And this propping is not materially weakened by the knowledge that bishops, generals,* gentlemen, and the sons of gentlemen have sometimes degenerated to the

* "For fifty years I have been in Her Majesty's service, and I do not hesitate to say that some of the brightest ornaments of the service have gone down and been degraded by drink."—Vice-Admiral Sir William King Hall, Speech, London, May, 1879.

ranks of habitual drunkards, because the *inciting* power of example (one of the most awful of our personal responsibilities to one another)—that which influences us in the way we want to go—is always more potent than its *restraining* force, which is likely to require some sacrifice of us!

It is certain that young people are in this matter peculiarly victims to the force of example, because in youth the imitative faculty is most susceptible, and they follow example blindly from their childlike confidence in those who set it; not as, later, to find protection and support in practices which they have learned are, at best, questionable.

We never see our own personal danger.

Then, too, in his own individual case man always sees real drunkenness, degradation, delirium tremens—just as he sees violent accident or death—as things possible, but dim, far off, not coming to him, though happening all round to others!

Dr. Channing would have the wealthy classes set the example of abstinence.

"What is the example the more prosperous classes set to the poorer?" says the Rev. Dr. William Ellery Channing. "Not that of self-denial, spirituality, of the great Christian truth that human happiness lies in the triumph of the mind over the body, in inward force and life.

"The great inquiry which the poor man hears among those whose condition makes them his superiors, is—'what shall we eat and drink, and wherewithal shall we be clothed?' Unceasing struggles for outward, earthly, sensual good constitute the chief activity he sees around him. To suppose that the poorer classes should receive lessons in luxury and indulgence from the more prosperous, and should yet resist the temptations to excess, is to expect from them a moral force in which we feel ourselves to be sadly wanting."*

§ 71. We know that by repeating an act or thought until it has become spontaneous and as unconscious and involuntary as our breathing, we have formed such thought and action into habit, and habit is a part of human development in which more watchfulness is needed than in any other.

The force of hereditary habit.

Habit is formed so easily—the force of example, everywhere, directly and indirectly influencing it—and forms by

* *Evil of Intemperance* (Boston, 1837).

gradations that glide upon one another so imperceptibly, that we are not only in its toils before we know it, but often without knowing it at all, and it is not only the strongest chain we forge around our own activity and influences, but among the most binding tendencies we transmit to our children.

When to its force by inheritance is added the powerful weight of sympathetic association—for our habits gravitate us to those of like habits—it is little wonder that the growing generation copies the faults and follies of the passing one, even when benefiting by some of its experience and research. For, as we have seen, the race development has, after all, thus far been so predominantly that of the senses, that great as have been its strides in purely intellectual and speculative fields, the growing, like the passing generation, and even in an intensified degree, is still chiefly bound up in investigations and experiments whose end is pleasurable—the gratification of self and the senses—in every imaginable form.

It seems a question whether the great mental advancement of the race has not been in directions and of a nature to prevent moral impulse, or at least check the best work of reflection; whether we have not had moral analysis satisfied with its analytic power, rather than moral purpose profiting seriously by moral analysis; so that intellectual progress and abnormal development of the senses have helplessly followed parallel lines, waiting for the moral and spiritual powers of man to bend them together and initiate a new habit of being in which all man's powers should grow into their normal relative proportions.

Sören Kirkegaard on the force of evil habits.

Concerning the force of evil habit, the great Danish thinker Sören Kirkegaard (*Kjaerlighedens Gerninger*, or *The Works of Love*, Copenhagen, 1847) says—

"Of all our enemies habit is perhaps the slyest, and above everything is she sly enough never to let herself be seen, for he who saw her would be saved from her. Against the visible enemy we fight in self-defence; but habit is like the soft, yet ferocious vampire that steals on the sleeper, and, while sucking his blood, coolingly moves its noiseless wings that his sleep may be the deeper. But the vampire finds its prey among the sleeping, it lacks power to lull the wakeful, while habit can creep sleep-

givingly over those who are awake, and do its vampire work in slumber of its own producing."

The force of habit become instinct.

And when habit has thus stolen upon us, it transforms the whole being so as to harmonize it with the habit or habits formed. The force of example and inherited tendencies make individual habits into national characteristics, and thus countries are ruled by the habitudes of preceding epochs, by routine government, by national prejudices, as well as by national ignorance and blindness to the most crying vices. Just as the individual finds it difficult to change any objectionable habit, because it has become so natural that he does it before he thinks, or even without thinking, so must it also be difficult for the nation and the race to change national customs and habits imbedded by the lapse of centuries; or even to take full note of their power and tendency.

Difficulty for the race as for the individual to break the chains of habit.

For example, the crime of murder, except among Thugs, Assassins, the Vehmgericht, or during frenzied religious or political upheavals, is generally abhorred and condemned, and punished by the death penalty.

But the institutions, habits, and customs which are responsible for nine-tenths of the murders, are neither generally condemned nor abrogated; but are eagerly defended and approved by most of those who wish to do—and think they are doing—their parts as patriots and citizens of a free country, in opposing interference with the time-honoured rights and privileges of the liquor trade.

They know that liquor does an incredible amount of wrong to the individual and to the nation. But habits—the habit of inactivity in the matter, and the habit of long participation in those social customs and commercial interests which help to sustain the liquor trade—these hold them off, and they intrench themselves in their non-interference by all sorts of specious reasoning.

So great, indeed, is the power of ingrained habit, that although evil, and passively recognized as such, it is strong enough to transform the whole state and social organization into accordance with it.

Difficulty of adjusting our social relations in

The tremendous power of custom and habit is almost daily felt by those interested in temperance reform, in the difficulty of deciding what is the right and wisest course

to pursue in social relations. We know that alcohol is poison; in offering it to a guest we offer him not only what is certainly non-beneficial, but what is, in some more or less degree, positively deleterious—even were the consideration solely that of physical health. harmony with our personal convictions.

But, in addition to this, we know that we may be starting him on the road to perdition; for conscience, self-control, moral dignity and purpose are not equally dispensed in the moral constitutions of men, and the exterior, with all its subtle indications, by no means surely informs of the weakness or strength of a given individuality.

Yet the circumstances we are placed in by the drinking customs of the country make it almost impossible for us to act with our highest convictions, or even to feel sure whether it would be best to do so at the present stage of affairs. It is not well that temperance, or any cause bearing the banner of reform, should be characterized by narrowness, bigotry, iconoclastic prejudices, and vainglorious self-assertion and intolerance. Yet social drink customs, associated as they are among the upper classes with lavish hospitality and the most pleasing graces and refinements of life, have often the effect of forcing the appearance of this invidious contrast upon the temperance movement; and the whole force of habit weighs as yet on the side of the drink customs.

These originated at the top of the ladder with the royal prerogative and the Court, from the days when great drinking capacity was thought to be one measure of fitness for occupancy of the throne; and came thence gradually down through the various grades of society into universal practice. The great responsibility resting with the throne in this respect.

If the Court, recognizing its responsibility for this evil, would take the lead and set the example in reform, the most formidable of the hindrances to reform—the drink customs—could and would be easily overcome.

Another and most important instance of the strength of rooted, ingrained habit was furnished in 1883 at the Canterbury Convocations, when the question of using intoxicating wine at the Lord's Supper came up for verdict before the ecclesiastical tribunal. After due consideration, the prelates of the Church of England found The Canterbury Convocations on the use of wine in the Lord's supper.

it most "convenient that the clergy should conform to ancient and unbroken usage." Placed in the gravest dilemma they evidently felt it might be wiser not to countenance an innovation, lest, for complicated reasons, the harm ensuing should be greater than the good.

It is scarcely possible to suppose that the majority among them do not believe that alcohol—now known to be a poison—is out of place at the Lord's Supper, yet, such are the difficulties accumulating through the force of habit and precedent around such a question, the verdict given is by no means incompatible with such a conviction.*

If the drink evil were not in our very midst, if, like the slave trade for example, it were flourishing in far distant lands, what would England then think of its results, and her responsibilities concerning them?

The foreigner who first sojourns in England, in London, Liverpool, or Glasgow, shudders at the scenes in the streets of these cities. After remaining a year or two, he becomes accustomed to them, and in a measure callous, though never ceasing to feel shocked at the effect that has been produced upon the children—the well-born, well-bred boys and girls—who only on their way to school have seen and heard enough before they are twelve years old to make them familiar with and indifferent to spectacles of drunkenness and sensuality in some of their lowest forms. Habit long pursued and transmitted becomes instinct, and at last, in a depraved sense, natural.

Mr. John Sebright on instinct.

Mr. John Sebright, in his *Observations upon Instinct* (London, 1836), expresses an opinion that "the greater part of the propensities that are generally supposed to be instinctive are not implanted in animals by nature, but are the result of long experience, acquired and accumulated through many generations, so as in the course of time to assume the character of instinct."

Mr. Herbert Spencer on the same.

In a letter to the *Athenæum* (London, April 5, 1884), Mr. Herbert Spencer quotes from his *Principles of Psychology* (edition of 1855): "On the one hand, Instinct may be regarded as a kind of organized memory; on the other hand, Memory may be regarded as a kind of incipient instinct. Memory, then, pertains to all that class of psychical states which are in process of being organized.

* See chapter xiii.

It continues so long as the organizing of them continues; and disappears when the organization of them is complete. In the advance of the correspondence, each more complex class of phenomena which the organism acquires the power of recognizing, is responded to at first irregularly and uncertainly; and there is then a weak rememberance of the relations. By multiplication of experiences, this remembrance becomes stronger, and the response more certain. By further multiplication of experiences, the internal relations are at last automatically organized in correspondence with the external ones; and so conscious memory passes into unconscious or organic memory."

Mr. Shirley Hibberd on the same.

Mr. Shirley Hibberd, in an article, *What is Instinct?* (*Intellectual Observer*, London, July, 1863), says that instinct is "the work of the mind rendered literally uniform by habit . . . but no matter how strong the force of habit, if initially it is the result of an act of reasoning and the expression of a *motive*, and is followed for a *purpose*, then it can never be separated from mind, though when the habit is fixed it makes little or no demand upon the mind until some exigency arises demanding a deviation from habitual rule."

In his essay on *Instinct* (*Encyclopaedia Britannica*, new ed. vol. xiii.), Prof. J. J. Romanes says—

The force of habit-formed instinct becoming nature, in a depraved sense.

"By the effects of habit in successive generations, mental activities which were originally intelligent, become as if they were stereotyped into permanent instinct.

"Just as in the lifetime of the individual, adaptive actions which were originally intelligent, may, by frequent repetitions, become automatic; so in the lifetime of the species, actions originally intelligent may, by frequent repetition and heredity, so write their effects on the nervous system that the latter is prepared, even before individual experience, to perform adaptive actions mechanically, which in previous generations was performed intelligently—called 'lapsing of intelligence.' We find good evidence that new or changed experience, when continued over a number of generations, is bequeathed to future generations as a legacy of intuitive knowledge."

These definitions and analyses of habit and instinct point to two of the most solemn and important facts of human evolution: that of the present impossibility of

conscientiously accepting the leading of our instincts, except after uncompromising scrutiny; and that of the paramount obligation to try ourselves and our instincts by tests of self-renunciation, combined with unflinching, constant, and large consideration for others; for we know ourselves to have gone so far on the wrong way that we cannot decide what is natural or true merely by the guidance of feelings and instincts which are in themselves so much the product of our wrong-going. And therefore, even when a man says of alcohol that he "knows it is good for him," that "it agrees with him," his assertions, if sincere—and such assertions often are—only prove how thoroughly vitiated his system and its demands have become.

The current saying that "History repeats itself" is a puerile complaint and a querulous pretence. It is the favourite epigram of our effete spirits, ever making the same weary round within a circle of our own drawing, till there is little power for searching or soaring beyond. While we persist as a race in a life of selfishness and sensual indulgence, no intellectual advance alone can set us free, or release History from her painful task of noting our gyrations from and to the same old points of departure.

History waiting to say something new.

If a child will not learn its lesson, the teacher cannot advance it to the next room. The teacher can only explain over and over again. If the child is content to be ignorant, or unwilling to take the trouble of learning, we are not surprised when he complains—"I'm tired of hearing that old lesson over and over. I can't learn it; I won't learn it; there'll be more just like it if I do! I don't believe there is any next room!"

History repeats itself only so long as we make it necessary to the learning of our lesson. She will say something new, something grander than all that has gone before, as soon as we will let her.

CHAPTER XII.

SPECIOUS REASONINGS CONCERNING THE USE OF ALCOHOL.

"Am I my brother's keeper?"—GENESIS iv. 9.

"Temperance is the unyielding control of reason over lust, and over all wrong tendencies of the mind. Temperance means not only frugality, but also modesty and self-government. *It means abstinence from all things not good and entirely innocent in their character.*" *—CICERO.

Similarity of process in body-poisoning and mind-poisoning.

§ 72. JUST as alcohol, by its imperceptible action in filtrating poison throughout generation after generation of the body, has poisoned the race, so the arguments in favour of its use, in filtrating their poison through the public mind from generation to generation, have shackled the reason, judgment, and conscience, which would have succumbed to no open and sudden onset, however formidable.

The danger of half truths.

As falsehood is dangerous in the degree that it is mixed with truth, so specious reasoning regarding drink is the more dangerous in the degree that its warp is crossed with threads of religious, social, moral, and political truths.

Specious reasoning, always plausible and usually clever, never strains popular comprehension or interpretation, and seldom exacts profound thought. It wears a mask of truth, under which it moves its features so ingeniously that we scarcely suspect the mask. It appeals to selfishness, calling it good nature; it incites false honour, calling it consideration and tact; it flatters false liberty, calling it individuality and self-respect. †

* For a voluminous and excellent compendium of authorities on the true meaning of the word *temperance*, see *The Morals of Temperance*, chap. i., in Dr. F. R. Lees' *Temperance Text-Book* (vol. i. London, 1884).

† "Invocation: Let us invoke all the powers on earth and under

The two conditions in which man will admit that evil is evil.

There are two conditions in which a man will admit evil to be evil: first, before he has ever committed or expected to commit it; last, when he has steeped himself in it so deeply, that there is neither shame nor hope enough left to tempt him to lie about it. On the down grade you will not get the truth from him, he will not tell it even to himself.

So the man who does not drink, and the sot, will alike tell you that drinking is a degradation and a curse, but the moderate drinker, of all grades of moderation, defends the habit tenaciously; at one point, or at another, wherever you attack, you find him there, and in whatever shape best opposes or neutralizes your attack.

Hyper-sensitive individuality a great obstacle in the way of personal reform.

The ingenious reasonings and arguments which have been woven around the habit of drink by those who love it, and who wish the justification of plenty of company in it, are very difficult to deal with. They are so much a matter of personal opinion, of mutual influence, of the rooted love of pleasure curiously mixed with the desire to

the earth for the whole state of the British Distillery. And let us implore the aid and assistance of those Immortal Shades who dared to rival the Lord of Heaven, and are invested with the Power of the Air, by which they go to and fro upon the Earth to deceive and seduce Mankind: That there may never be wanting arguments to delude, nor bribes to corrupt."—*An Oration delivered before an Audience of Distillers, by Baalzebub* (London, 1760).

In the *Pall Mall Gazette* (April 5, 1884) I find the following:—

"PROPOSAL FOR A MISSION TO START A PUBLIC-HOUSE.

"The Bishop of Bedford presided on Thursday night at a meeting in the board-room of the S.P.C.K. office, at which were present the Right Hon. Sir J. R. Mowbray, M.P., Mr. J. G. Talbot, M.P., the Wardens of All Souls and Keble, Canon Scott-Holland, and other friends of the proposed movement for Oxford men working in the East End of London; and it was proposed to place an 'Oxford House' in the parish of St. Andrew, Bethnal Green, of which the Rev. Knight Bruce was in charge. Mr. Albert Pell, M.P., suggested the propriety of the Oxonians buying a public-house. He said that he should be happy to lease them one. He was not joking. A publican could get at as many people as a person could reach. *They could take this house and insist that it should be conducted so that a man could take his wife and children into it without the ears of the women being hurt, and if there was a little drunkenness, that was not the greatest crime in the world, though people often spoke as if it were.*"

be considered conscientious, and with some real impulses to do right; and the whole sophistical mesh is so plausible and subtle (resulting from long inheritance of drink habit, drink custom, and drink sophistry, so that the selfishness is well concealed even from the sophist himself), and so personal, that the first outwork the reformer encounters—or he who seeks help to be self-reforming—is that of hyper-sensitive individuality.

It is not only for the self-deceived, but for the honest searchers and the ignorant, that we must win in this good struggle.

Then there are the myriads of onlookers, intelligent people, who are not quick or clever reasoners, but who sincerely search for, though they cannot argue about the truth; people who respect themselves and abhor debauchery, who, meaning neither to deceive nor be deceived, are balancing this important question of moderate drinking—of drinking at all, with the intention of discovering whether moderate indulgence is harmless in itself, and whether it has a tendency to become immoderate. It is also for these and their heirs for ever that victory in this good struggle is to be won. And to win, it is not only necessary to unwind all specious arguments and leave the truth standing bare and clear; it is necessary to do it in such a way that the masses will see that it is done,—will be *convinced.*

If every beer-shop and public-house were closed, every brewery and distillery destroyed, every bottle broken, and every drop of alcoholic drink spilled out of England into the ocean to-day, and no more of the same were admitted within its borders for a year and a day, England might see something of what abstinence could do, but she would not experience the effects of abstinence *voluntarily imposed upon himself by man, under the sincere conviction that intoxicating drinks are evil.* It is this that is wanted everywhere, in every heart and life. Whether a little drink be hurtful or harmless, is not now, if it ever was, the question. What is wanted is the general diffusion of the knowledge that alcohol is a poison to body and mind; that, though *the drinker may in his own person to all appearances escape baneful consequences, his children and children's children must often bear them.* What is wanted is the conviction that *no man can guiltlessly indulge in that which, not being a necessity for himself, is, by his indulging, a snare to his brother.* That drink *is* such a

The great need of general and positive knowledge on the subject; and consequent recognition of personal responsibility.

snare, is abundantly proved by the fact that, wherever the custom of moderate drinking has been sanctioned by the community, there has always been a large number in that community to sink from moderation to excess.

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§ 73. In dealing with specious reasoning, we must remember that even fools can make assertions which, however groundless, a wise man will find it difficult to successfully gainsay, and thorough indeed must be the refutation of assertions made in the interests of self-indulgence.

The fallacy of the boast that the virility of the English nation proves the comparative harmlessness of drink.

It is common in England, (probably at present the hardest drinking country in the world) to hear the defenders of drink, boast that the virility and might of the English nation proves the outcry against alcohol to be greatly exaggerated, if not unfounded.

Many peculiar local and historic circumstances (such, for instance, as the insular position which has often comparatively sheltered England from the commotions and anxieties of the continental Powers), combined with prudent and vigorous statesmanship, have mightily contributed to the foundation and maintenance of England's present power, but we may be certain that the comparative sobriety of the English race has done more. For however strong the hold of this vice in the present, it is a fact that the English as a nation have not been hard drinkers more than about two hundred years, which can be said of no continental nation.

Brief epitome of England's drink history.

Beers and the use of hops became known in England during the sixteenth century; before that time, the favourite drink of the people was ale and mead, the substitute for hops being wormwood; and at about the same time tea and coffee were beginning to come into general use, and acted modifyingly.

It appears from State documents that as early as the fifteenth century, water, so far as the Court was concerned, was regarded as unfit to drink.

Bergenroth on the attitude of the Court concerning water-drinking in 1498.

Says Bergenroth, in his *Calendar of State Papers* (No. 1156)—

"The Spanish ambassador at the court of Henry VII., De Puebla Talavera, writes to Ferdinand and Isabella (July 17th, 1498) that the English queen, and Lady

Margaret, the king's mother, wish that the young Princess Catherine of Arragon being affianced to the Prince of Wales (though still living in Spain) should accustom herself to drink wine, since the water in England is not drinkable, and even if it were the climate would not allow the drinking of it."

It was through the marriage between the English and French royal houses that wine-drinking was first gradually spread among the masses in England, by means of the consequent favourable tariff to the importation of wine. Before that time, though the masses generally drank ale, it was ordinarily of a light character, and gross drunkenness was not common among them. Says Camden (*Annals*, 1581)—

Citation from Camden's *Annals*, 1581.

"The English, who hitherto had of all the Northern nations shown themselves the least addicted to immoderate drinking, and been commended for their sobriety, first learned in these wars in the Netherlands to swallow large quantities of intoxicating liquors, and destroy their own health by drinking that of others."

In 1595 Dr. William Bullein, in speaking of the drink evil, makes no mention of distilled liquor.

In his curious work, *The Government of Health* (London, 1595), Dr. William Bullein says, "They that drinke wyne customably with measure, it doth profit them much and maketh good digestion; those people that use to drink wyne seldom times, be distempered . . . ale and beere have no such virtue and goodness as wyne hath." He does not mention distilled liquors.

Citation from the *Compleat Gentleman* (1622).

Mr. Sherlock, in his *Shakespeare on Intemperance*, (London, 1882), quotes from a section entitled *The Plague of our English Gentry*, of the *Compleat Gentleman* by Henry Peacham (1622), the following:—

"Within these fiftie or threescore yeares it was a rare thing with us to see a drunken man, our nation carrying the name of the most sober and temperate of any other in the world. But since we had to doe in the quarrell of the Netherlands, the custom of drinking and pledging healthes was brought over into England; wherein let the Dutch be their owne judges, if we equall them not; yea, I think rather excell them."

From Tryon's *Way to Health, Long Life,*

In his well-known work, *Way to Health, Long Life, and Happiness* (1683), Tryon says that formerly canary (wine) was sold almost exclusively by apothecaries.

and Happiness (1683).

"Where there was one quart of wine drunk forty or fifty years ago (which would be about 1635) there is now ten thousand . . . the use of tobacco and brandy a hundred years since was hardly known. Nay, the use of our ale and beer has hardly been above two hundred years." Which shows that hard drinking did not become common until the latter part of the seventeenth century. The responsibility of the court for the spread of this evil among the masses is pointed out by Sir John Harrington in his *Nugæ Antiquæ*. Describing the visit of the Danish king Christian II. to the court of England in 1606, he says—

Hard drinking not common in England until the 17th century.

Citation from Sir John Harrington's *Nugæ Antiquæ*.

"The ladies have abandoned their sobriety, and are seen to roll about in intoxication. . . . I see no man nor woman either that can now command himself or herself."

From De Foe's *Poor Man's Plea*.

Concerning the condition brought about by the *Act for Encouragement of Distillation*, De Foe, in his *Poor Man's Plea* (London, 1700), says—

"Drunkenness had become a science, and but that instruction in it proved so easy, and the youth too apt to learn, possibly we might have had a college erected for it before now." And of the evil example set by the nobility, he says, "Whoever gives himself the trouble to reflect on the custom of our gentlemen in their families encouraging and promoting this vice of drunkenness among the poor, will not think it a scandal upon the gentry of England if we say that the mode of drinking that is now practised had its origin in the practice of the country gentlemen, and they again from the courts."

The close of the eighteenth century saw little improvement on this state of affairs. In Lecky's *History of England* (1878) there is a graphic quotation from Bishop Benson, picturing the condition of England at that time.

From Bishop Benson in Lecky's *History of England* (1878).

"Not only," says the bishop, "is there no safety of living in this town (London), but scarcely any in the country now. Robbery and murder are grown so frequent. Our people are become what they never before were—cruel and inhuman. Those cursed spirituous liquors, which to the shame of our Government are so easily to be had, and are in such quantities drunk, have changed the very nature of our people."

Among the nobility and clergy, drinking has been more or less prevalent for about five hundred years, but

the English masses have been hard drinkers for only a little over two hundred years, or about one hundred years less than any other nation, America excepted. Therefore the assertion that the strength of the English race is evidence that drink is not injurious, is seen to be fallacious.

The Rev. Dr. Dawson Burns on the specious arguments used to prove that the commission of crime in so-called sober countries justifies the assumption that drink is not at the bottom of most of the crime committed in Great Britain.

Rev. Dr. Dawson Burns, in his *Christendom and the Drink Curse* (London, 1875), eloquently exposes these specious and evasive arguments in these words: "Nothing can be more superficial, not to say sophistical, than the manner in which some literary men, who have no practical knowledge of the subject, endeavour to meet the force of this argument, whether used for abstinence or prohibition, by referring to countries comparatively sober (such as Spain and some parts of the East) where crimes of great enormity are very common. Whatever may be the causes of such crimes *there*, they cannot prove that strong drink is not at the bottom of two-thirds or three-fourths of the crimes committed in the United Kingdom; and to assume, as is done, that if the British causes were removed, the foreign ones would take their place, is an outrage on common sense and knowledge of the world. Assuming the facts to be as stated, they do but show what no one ever doubted—that the causes of crime differ in different countries; the reasonable inference being, that every country should seek to remove those causes of crime that are special to itself. Brigandage is rampant in some countries, and has its peculiar causes; but what would be said by English writers if suitable means for the removal of those causes were opposed on the ground that drinking is the principal cause of crime in Great Britain? Equally ridiculous is the plea that because some sober countries are subject to crime from peculiar causes, therefore British crime is not owing to strong drink, or that the sum of it would remain as before, if drinking were abolished, all evidence and internal probability to the contrary notwithstanding. It may at the same time be doubted whether the countries credited with this remarkable sobriety deserve the praise, or at least whether the crimes committed there are not largely due to the use of intoxicants by the criminal part of the population. It was so during the

Indian Mutiny, when the sepoys, guilty of the worst atrocities, were made mad with bhang and arrack. It was so during the Communist rule in Paris, and the later outrages of the Spanish revolutionists. And in Eastern countries crime will be chiefly found to prevail among the classes that do not comply with the rules of sobriety, while those classes of the population free from drinking are strikingly free from other offences. So it is in Turkey, and so in India. It ought not to require much reasoning capacity to perceive that the absence of intoxicating liquors must be favourable to the decrease of crime, and that whatever may be the amount of crime where they are unknown, their use would lead to an aggravation and an increase."

Habitual drunkenness universally condemned.

§ 74. All sensible people think alike on one feature of the drink question: they agree in condemning habitual drunkenness and sottishness as repulsive and contemptible.

Moderate drinking the nucleus of dispute.

But on the question of so-called "moderate" drinking there is almost as much divergence of opinion as there is latitude of interpretation.

The first thing would be to ascertain the standard of moderation; but no standard has yet been fixed, no definition of the term been settled upon. Nor, indeed, would it be possible to do so from the physiological standpoint; for while a single glass may produce drunkenness in one man, another man might drink ten glasses and show no signs of intoxication.

No fixed standard of moderation possible.

Dr. John Cheyne.

"They who have heard how large a quantity of fermented liquor may sometimes be taken without injury," says Dr. John Cheyne, in *A Letter on the Effects of Wine and Spirits* (Dublin, 1829), "ought also to know how small a quantity may prove injurious, otherwise the question at issue has not been fairly submitted to their judgment."

Fourteen glasses of wine per day the moderation limit of a German temperance society in the sixteenth century.

In Germany, in the sixteenth century, a temperance society based its laws on the restriction of its members to "*fourteen glasses of wine daily.*" In our day observation shows that "moderation" means just as little as a man chooses to drink, and also just as much as he chooses to drink short of the point of evident intoxication, nor is the line drawn even here by all, nor is there any one vested

In our day,

with authority to say that the line shall be drawn anywhere. moderation entirely optional.

On being asked to define the term, one man says, "Moderation is to drink no more than you know is good for you, and never under any circumstances to exceed that amount." Further questioning elicits the fact that the quantity varies; for example, his habit is to drink two or three glasses of wine or beer at dinner daily, and a glass of brandy now and then before going to bed; in company, he is, of course, not so strict; it would be disloyal, bigoted, unsocial, not to drink the health of the Queen, the Royal Family, and other toasts; but he understands himself perfectly, and knows what he can bear; he confesses to having sometimes been a little "jolly," but nothing worse, and he has only contempt for those who cannot thus control themselves. Some of the most usual definitions of the term.

This is a fair specimen of the moderate drinker's definition of the term. Another moderate drinker cannot tell you the quanity he takes. "I take a glass whenever I feel like it," he says, "but I always stop at the right point, and I don't frequent the public-house." Another claims moderation on the ground that he is never exactly "dead drunk," or that he is "only drunk now and then."

"We are assured," says the *Lancet*, in an article, *Are Publicans the Enemies of Drunkenness?* (May, 1872) "that they (the publicans) regard this vice with a horror in no way second to the horror of teetotalers . . . from whom, indeed, they only differ in the opinion they have formed with regard to the best means of repressing the evil. Teetotalers would diminish drunkenness by enjoining abstinence from alcohol, . . . publicans, by enjoining moderation." The specious reasoning in which the publican stifles his conscience on this question of moderation is pointed out by Mr. Edward Jenkins, M.P.,* who makes the rich distiller, Mr. Bighorne, evade his daughter's protest with Cain's answer:—"I have repeatedly explained to you that whatever evil may result from the use of my manufactures is not due to any action on my part, but to the voluntary abuse, by separate individuals, of an article which, like anything else, if used in moderation, is harm- The *Lancet* on publicans' specious reasonings about moderation. Mr. Edward Jenkins, M.P., on the same.

* *The Devil's Chain* (London, 1876).

less and good. I follow the ordinary course, and have no responsibility whatever for other people's weaknesses."

The *Lancet* on the scope of the term moderation.

As to the meaning of moderation, the *Lancet* continues, "It is simply a matter of definition. A learned judge once said that a man was not drunk so long as he could lie on the ground without holding on; to reel and stagger a little, to use foul language to decent people, . . . to squander the earnings that should support a family, and gently punch the head of the partner of one's joys and cares; . . . to do all this when under the influence of drugged beer is not to be drunk, but only 'a little fresh.'"

§ 75. Physicians, who should certainly be the highest authorities, very rarely attempt to define a fixed standard for moderation.*

The practical worthlessness of the plea of moderation.

But even if a moderation standard were theoretically found, its unattainability in practice at once becomes apparent.

In chapter iv. some general facts were given regarding the science of liquor adulteration and its prevalence, showing that, except in rare instances, all alcoholic liquors are, as a rule, adulterated. This fact alone makes the observance of any standard of moderation impossible to the majority. But even if alcoholic drinks were not often adulterated, the moderation standard would still to the

* They sometimes attempt it, however. The late Dr. Anstie, for example, gave his standard of moderation in an issue of the *Practitioner* (early in 1871), on which the *Temperance Record* commented as follows:—

"This is the nearest approach that we have ever met to a definition of the moderate use of alcohol, namely, not more than two ounces of alcohol in twenty-four hours for an adult man, and not more than three-fourths of an ounce for a woman. It would be a sad interruption to the enjoyment of a convivial party if Dr. Anstie's standard of moderation were set up for its guidance. There would be, in the first place, the necessity of learning the amount of alcohol contained in the wine or other inebriating liquor placed before the guests; and the size of the glasses would have to be made known, so that each person might understand how many glasses he or she might take without going beyond the bounds of moderation. It would be extremely difficult to keep to the standard. All the victims of intemperance began their use of strong drink in moderate quantities, and the drink has made them what they are. The drink is truly a mocker; men flatter themselves that they know how to guide themselves—they can distinguish the use from the abuse; but they learn by painful experience that the drink is strong, while men are weak."

vast majority of people remain utterly unattainable. It was shown in chapter v. that the relative harm done by alcohol directly depends on a variety of more or less difficult, personal, and other circumstances and conditions; such as constitution, temperament, climate, antecedents, occupation, condition of the stomach, etc., etc. It may be said that a skilful physician would be able to make allowance for all these things. But this very fact proves that a general standard is out of the question. And, again, supposing these objections were the only ones, and that the medical profession had really reached this necessary proficiency, even then it would be only the rich who could practise moderation!

If a general standard for the individual could be approximately reached, there are considerations which would still make its observance practically impossible.

In chapter v. it was seen how the harm produced by alcohol depends on (besides the conditions just enumerated) the nature of the alcohols imbibed, and their relative saturation with water.

Supposing, therefore, that the moderation quantum of alcohol could be fairly ascertained, it would still be impossible to put the standard in practice, until every bottle of wine, whisky, brandy, gin, beer, ale, etc., should be scientifically tested, and the required saturation and character of the alcohol be thus ascertained or prepared.

Therefore it is seen that the term moderation, when applied to intoxicating liquors, has no value, because it has no reliable signification; and that its chief use is to cover with the mantle of respectability as much as possible the varying grades of a habit bad from first to last, in whatever degree it is indulged in. It is but fair in this connection to mention the fact that very many persons ranking among moderate drinkers both have and conscientiously observe a fixed standard, and not only do not exceed its limits, but sincerely believe that within those limits the indulgence is harmless.

But why, after all, should there be this search for a safe moderation dose? If alcohol, while being the dangerous article we know that it is, had yet been found to

be under certain conditions and in certain quantities essential to life and health; then, indeed, would it become not only proper but an imperative necessity for us to find out the right way to use it. But it is proved and admitted by every one qualified to speak about it, and who values the truth, that alcohol is *not* necessary to either life or health; that, on the contrary, neither are served by its use, in any quantity. Why, then, search for a standard of moderation for the use of a thing, at best quite valueless, and whose most probable effect is the formation of an appetite in every way dangerous to the health of body and mind?

And what is the testimony of competent authorities as to the results of moderate drinking?

Dr. Grindrod (*Bacchus*, 1839) on moderate drinking as the preparatory stage of drunkenness.

In *Bacchus* (London, 1839), Dr. Grindrod tells us that "the habit of intoxication is a confirmed taste or appetite for strong drink, *acquired* in the *first instance* by *moderate indulgence*. The state of intoxication is that high degree of excitement of which *moderate* drinking is the preparatory stage.

"*One of the first stages of intemperance is witnessed in the anxious and uneasy feelings* which even *moderate* drinkers *invariably* experience on occasions when they have been *accidentally deprived* of their accustomed allowance. Sensations of this nature present undoubted evidence of the existence and development of the inebriate propensity. Indeed, the great danger of moderate drinking consists in the inability to ascertain at what precise period in the progress of the vice this unnatural sensation first commences."

Dr. J. Baxter on moderate drinking.

In *Testimonies of Physicians* (New York, 1830), Dr. J. Baxter says, "The habit of moderate drinking has been the principal cause of the widespread scourge of intemperance. The laws of gravitation in impelling ponderous bodies toward the centre are scarcely more certain than the moderate use of liquor in begetting the drunken appetite."

As to the physiological results of moderate drinking, I find the following medical opinions quoted by Dr. Grindrod (*op. cit.*):—

Dr. Copland on the same.

"In his *Dict. of Pract. Med.* (1835), Dr. Copland says, 'There can be no doubt that, as expressed by the late Dr. Gregory, an occasional excess is upon the whole less

injurious to the constitution than the practice *of daily taking a moderate quantity of any fermented liquor or spirit.*'

Dr. Garnett.

"In his *Lecture on Health* (2nd edition, 1800), Dr. Garnett said, 'Those who drink only a moderate quantity of wine, so as to make them cheerful, as they call it, but not absolutely to intoxicate, may imagine that it will do them no harm. The strong and robust may enjoy the pleasures of the bottle and the table with seeming impunity, and sometimes for many years may not find any bad effects from them; but, depend upon it, if a full diet of animal food be every day indulged in, with only a moderate portion of wine, its baneful influence will blast the vigour of the strongest constitution.'

Dr. James Johnson.

"Dr. James Johnson avers that—'A very considerable proportion of the middle and higher classes of life, as well as the lower, commit serious depredations on their constitutions, when they believe themselves to be sober citizens, and do really abhor debauch. This is by drinking ale and other malt liquors *to a degree far short of intoxication*, yet *from long habit producing* a train of effects *that embitter the later periods of existence.*'

Dr. Macrorie.

"Said Dr. Macrorie, 'After having treated more than three thousand cases in the town hospital, Liverpool, I give it as my decided opinion that *the constant moderate use of stimulating drinks* is *more injurious* than *the now and then excessive indulgence* in them.'

Dr. Gordon.

"Dr. Gordon, of Edinburgh, corroborated Dr. Macrorie, saying that in numerous post-mortem examinations made on 'the bodies of persons who had died of various diseases in a population much more renowned for sobriety and temperance than that of London, there was the remarkable fact that in all these cases there was, more or less, some affection of the liver; and these people had not been in any shape or form intemperate, and they were moral and religious people, who would have been shocked at the imputation; but they had been in the habit of drinking a *small* quantity of spirits *every day.*'"

Dr. Sewall.

Dr. Sewall says, "I am persuaded that tens of thousands of temperate drinkers die annually from diseases through which the abstemious would pass in safety."

Sir Henry Thompson.

In a letter dated March 15, 1873, Sir Henry Thompson wrote to the late Archbishop of Canterbury (Dr. Archibald

Campbell Tait), "I have no hesitation in attributing a very large proportion of some of the most painful and dangerous maladies which come under my notice, as well as those which every medical man has to treat, to the ordinary and daily use of fermented drink, taken in the quantity which is conversationally deemed moderate."

Sir William Gull.

And Sir William Gull stated to the Lords' Select Committee of Inquiry into the Prevalence of Intemperance (1877), that "all alcohol, and all things of an alcoholic nature, injure the nerve-tissues *pro tempore*, if not altogether, and are certainly deleterious to the health. I think there is a great deal of injury being done by the use of alcohol in what is supposed by the consumer to be a most moderate quantity, to people who are not in the least intemperate, to people supposed to be fairly well. It leads to degeneration of tissues. It spoils the health and it spoils the intellect. Short of drunkenness (that is, in those effects of it which stop short of drunkenness), I should say, from my experience, that alcohol is the most destructive agent we are aware of in this country."

Although it is not easy, and perhaps not possible, to demonstrate the nature and exact amount of harm resulting to any particular individual from the occasional or even the regular use of alcohol in very minute quantities, scientific observation tends—as we have seen—to prove that it always is, and acts as, a poison, whether in sickness or health.

Dr. W. B. Carpenter.

Dr. W. B. Carpenter, in his *Temperance and Abstinence* (London, 1881), gives a very valuable analysis of both the difficulty of tracing the direct results of extreme moderation and of penetrating the web of specious reasoning which is woven around it. He says, "'The little I take does me no harm,' is the common defence of those who are indisposed to abandon an agreeable habit, and who cannot plead a positive benefit derived from it; but before such a statement can be justified, the individual who makes it ought to be endowed with the gift of prophecy, and to be able to have present to his mind the whole future history of his bodily fabric, and to show that, by reducing the amount of his excess to a measure which produces no immediately injurious results, he has not merely postponed its evil consequences to a remote period,

but has kept himself free from them altogether. The *onus probandi* lies with those who assume the *absence* of a connection, which is indicated by every fact with which we are acquainted. . . . If the medical man has no hesitation in regarding those severer derangements of the digestive and excretory organs, which are so common amongst those who commit habitual excesses in eating and drinking, as the consequence of those excesses, why should he refrain from attributing the milder but more protracted disorders of the same organs to the less violent but more enduring operation of the same cause?

"Let it be remembered that we have multitudes of cases, in which the long-continued agency of morbific causes, of comparatively low intensity, has been proved to be not less potent in the end than the administration of a poison in a dose large enough to produce its obviously and immediately injurious effects. Thus, a man who would be rapidly suffocated by immersion in an atmosphere of carbonic acid, may live for weeks, months, or years in an atmosphere slightly contaminated by it, without experiencing any evil effects which he can distinctly connect with its influence, and yet who will now deny that the constant action of this minute dose of aërial poison is insidiously undermining his vital powers, and preparing him to become the easy prey of any destructive epidemic? So, again, we see that a brief exposure to the pestilential atmosphere of the swamps of the Guinea coast is often sufficient to induce an attack of the most rapidly fatal forms of tropical fever; but it may be long before the dweller among the marshy lands of temperate climates, inhaling the paludal poison in its less concentrated form, becomes affected with intermittent fever; yet no one has any hesitation in recognizing the connection of cause and effect in the latter case, as in the former. So, again, the resident in a town, where the insufficiency of the drainage causes the surface-moisture to be imperfectly carried off, and to be not merely charged with the malaria of vegetable decomposition, but with the miasmatic emanations of animal putrescence, may be free from serious disorder, if the cause does not operate in sufficient intensity; yet he becomes liable in a greatly increased degree to the operation of almost every morbific agent, and especially to that

of the various forms of fever-poison; and no one who has paid even a slight degree of attention to the result of the sanitary inquiries which have now been carried on for many years past, hesitates in admitting the relation of cause and effect between insufficiency of drainage and the higher rate of mortality in undrained localities, although not only days and weeks, but months and years, may be required for the operation of that cause upon the animal system."

But even supposing that an innocent dietetic dose of alcohol had been discovered, all reasonable arguments tend to prove that abstinence would even then be preferable to moderation. In a letter published in the *Temperance Record* (July 3, 1879), the late Samuel Bowly said, "Total abstinence is simple, clear, and safe for all. Moderation gives no help to the drunkard. Total abstinence, by God's blessing, has reclaimed thousands. Moderation keeps alive the insidious temptation, but supplies no strength to the weak to resist its power. Total abstinence, by removing the temptation, effectually protects all. Moderate drinking necessarily requires the continuance of the manufacture and sale to supply its demands. Total abstinence quietly, but effectually, annihilates the traffic with all its abounding evils. Moderation attracts the young by the apparent absence of danger. Total abstinence removes the danger, and thus secures their permanent safety. Moderation leads the masses to the public-house, total abstinence keeps them outside."

The late Samuel Bowly.

In an article on *Abstinence and Moderation* in *To-Day* (January, 1884), Mr. C. Kegan Paul very appositely says that, even if an invalid believes that in giving up what is called a moderate supply of alcohol, "he is giving up a source of strength, either mental or bodily, I would suggest, even supposing this to be a possible danger, that, whereas he knows that drink is sapping his strength, weakening his will, lowering his bodily tone, abstinence can do no more, while it may do much less, and if he is to be a weakling under any circumstances he had better be a sober than a drunken invalid."

A valuable suggestion by Mr. C. Kegan Paul.

The worker, whether he is a clergyman, an author, or a day-labourer, who turns to alcohol to build himself up

The deceptive cha-

after a hard day's work, simply balances one exhaustive process with another—the exhaustion of labour with the exhaustion of the system caused by its efforts to dispose of the alcohol. A certain sense of relief, of apparent return of equilibrium, may be felt because of the change consequent upon the transfer of the exhausting process from one domain of the system to another. But this sense of relief is purchased at the expense of the sum total and term of active efficiency. The nervous system irritated by alcohol will exact larger and larger doses for procuring the brief and deceptive relief; greater efforts will be exacted of the system for getting rid of it, and thus the two exhaustions going on in seemingly parallel lines, will gradually manifest convergence until at last the powers of endurance and labour will more or less abruptly collapse.

racter of the relief attributed to the moderate use of alcohol in cases of exhaustion from labour.

§ 76. Of the effects of "moderate" drinking on the temper and disposition, Dr. Grindrod (*op. cit.*) remarks—

Dr. Grindrod on the effects produced by moderate drinking upon temper and judgment.

"Experience demonstrates that the moderate but habitual use of inebriating liquors inflames the passions and renders the disposition susceptible of even slight provocation. It weakens, if it does not to a great degree destroy, the powers of reflection, deliberation, and judgment; the relations of things are viewed through a coloured and distorted medium, and with these radical transitions there follows an utter inability to estimate character and actions with dispassionateness and discrimination. Aristotle observes that man while in a sober state reasons with correctness, because he makes a proper use of his judgment; in a state of utter intoxication, he does not reason at all; when, however, he is partially under the influence of wine, he reasons inaccurately, and therefore readily falls into error and mischief."

Says Dr. Baer in his *Alcoholismus* (Berlin, 1878), "Undisturbed reflection and quiet comparison, critical regard and deliberate judgment, impartial observation of facts and the weighing of their relationships—such are the mental processes to which mankind owes the entire treasure of positive knowledge, including the progress of natural science, technique, and industry; *such processes are certainly not promoted by alcohol.*"

Dr. Baer on the effects produced on mental processes by alcohol.

The Rev. Dr. Hewitt says that "the French drink to

Dr. Hewitt

on the character of moderate drinking among the French.

just that point at which the moral sense and judgment are laid asleep, but all their other faculties remain awake. If they do not drink to absolute stupefaction or intoxication, it is because sensuality with Frenchmen is a science and a system."

To-day it would not be fair to say this of Frenchmen only.

The moral responsibility of the moderate drinker.

Equally deplorable are the effects of "moderate" drinking on man's sense of duty to his fellows.

Moderate drinkers often argue that as they have always been moderate, have never exceeded, nor even been tempted to exceed, they can see no reason why they should forego what they regard as an innocent indulgence, if not a positive benefit, because there are weak people who lack judgment or power to restrain their appetites within proper limits.*

* "An analysis of the moral elements alleged to be strengthened by temptation in the exceptional cases of 'superior' virtue, will not justify the position of indifference to the fate and feebleness of others. The moral elements involved are two-fold: intellectual and emotional. First, a person declines to do a certain act, because, though pleasant at the moment, it is *unfitting* in its relations, and profitless in the long run. It is a violation of *law*, and therefore unphilosophical or foolish. All sin is so, if we could but see it: and when we actually decline pleasant sins, we *do* see it. This may be called the 'sense' of virtue. But, second, there is the 'sensibility' of virtue. We decline sin *as sin*, that is, because it is a 'wrong' thing: because it is a relation which is bad *objectively*, and the doing of which would put us in a bad relation *subjectively*. In other words, our virtue is at once our purity, our humanity, and our piety; we *abstain* from transgressing law out of regard to the interests of ourself and mankind, and out of reverence to the Creator of the law. If these perceptions and feelings are strong, we shall act upon them *habitually*—in other words, we shall crystallize our nature in the mould of virtue. Is not that better than spasmodic attempts at virtue, with the risk or reality of frequent failure? But the state of mind, and attitude of being, here described, is just as true of the Abstainer from *all* strong-drink, as of the Abstainer from (what *he* calls) 'excess.' Both resist temptation for essentially the same reasons —but the one happens to *know* more accurately where the evil commences, and the other certainly *feels more tempted to yield to the temptation* in consequence of having a *liking* for the drink.

'Resist *beginnings:* whatsoe'er is ill,
Though it appear light and of little moment,

The Rev. Stopford A. Brooke on this point.

In a letter to the *Inquirer* (November 18, 1882), the Rev. Stopford A. Brooke, after likening the course of the drinker to a journey, says, "The question is, seeing that the journey is so deadly a one, ought a man to begin it at all? If he begin he is in danger of going on, and there is not one inch of the way which is safe; for alcohol has this peculiar property, that it always lures onwards, that one glass asks for another. The moderate drinker is obliged almost daily to resist that allurement, and he is in continued peril of failures to resist; and indeed, it is a wonder he is not more afraid, for the whole mass of those who have been killed by alcoholic diseases, who have been made criminals and brutes by alcohol, whom alcohol has driven mad, and who have sown in their children the seeds which afterwards quickened weakness of constitution, on which any disease seizes, into idiotcy or mania or early death, began in the same way, went the first stage with the moderate drinker, but could not resist the invitation for more which the first stage invariably makes. It is because all this is so terribly true that we say, and with justice and fairness, that the moderate drinker is in danger, and that the example he sets does more harm than he is aware of."

But, regarding the habit for the moment as the innocent indulgence or benefit which the moderate drinker claims, what if these weak ones could be strengthened by this self-denial on the part of the strong? And if this does not impress, let us come closer, and ask how it will be if the weak one shall appear in our own household, be a beloved son, who cannot stay his hand as we have been able to stay ours?

Ah! then the narrow reasoning falls through, and in the degradation of our own child we first feel how it is that the thousands and tens of thousands of other parents, mourning and ashamed, had a claim that we failed to

> Think of it thus—that what it is, augmented,
> Would run to strong and sharp extremities;
> Deem of it, therefore, as a serpent's egg,
> Which, hatched, would, as its kind, grow mischievous;
> Then crush it in the shell.'
>
> SHAKESPERE."

—Dr. F. R. Lees, in *Temperance Text-Book*, vol. i. (London, 1884).

recognize, and how their shame and sorrow is our reproach.

The Rev. James Smith in refutation of the argument that moderation is better than abstinence.

Says the Rev. James Smith, in his *Temperance Reformation and its Claims upon the Christian Church* (London, 1875), "It is urged against the temperance reformation that *temperance is a greater virtue than abstinence.* It is urged that moderation is the dictate both of reason and Scripture, abstinence the dictate of fanaticism and bigotry —the latter, being unnatural and unreasonable, will defeat its own end, and by producing a reaction will foster the very evil it is meant to cure; you might as well abjure food because some are gluttons, or take a pledge never to speak because language is often abused, as abjure strong drink or take a pledge to abstain because some become drunkards.

"Such reasoning has a superficial look of plausibility, but it will not bear examination. It assumes that strong drink is a necessity, or at least very useful, and that its ordinary use is in accordance with nature and reason. But if this be not so, if abstinence be more reasonable and natural than drinking, the argument is worthless. There can be no reaction where there is nothing to react, and the desire for strong drink never originates in abstinence from it, but in the use of it. If it were a natural appetite, its unnatural repression would, in all probability, produce a reaction; but it is not natural, and our contention is, that the more the laws of nature are understood, the character of strong drink examined, and the dictates of reason and science obeyed, the more general will the practice of abstinence become.

"It is, no doubt, a matter of frequent occurrence that where intemperate habits have been already formed, a period of enforced abstinence is succeeded by a deeper debauch; but such a case is quite beside the mark, unless it can be shown that the craving for strong drink was formed originally in consequence of abstinence, and that a similar craving is likely to be formed in cases of habitual voluntary abstinence, which is directly contrary to science and experience. The analogy between abstinence from strong drink and from food is clearly inadmissible, unless some specific kind of food of a highly unwholesome and dangerous character be selected on which to base the

argument; but in that case the argument is manifestly destroyed. We object to strong drink as a wrong kind of drink, and we would equally object to any kind of food of which the characteristic ingredient was alcohol."

C. Kegan Paul on the same point.

In the *Church Sunday School Magazine* (September, 1883), Mr. C. Kegan Paul says—

"It is admitted that for the drunkard, for the man who has a craving for drink, total abstinence is needful; but we are told that moderation is a better thing, and that those who can use their liberty aright had better do so. But see how such argument looks from the side of the drinker. In the first place, not all who have these cravings, and who are therefore in imminent danger, are ready to admit that the case is so ill with them. They are not prepared to say, as it were, to the world by the fact of abstinence, that being unable to govern their appetites they put away temptation once for all, nor is there any reason why they should thus introduce every one into the dark secrets of their souls. But knowing 'the plague of their own heart,' they may well be content to have this private reason for joining a band of persons who give up strong drink for the equally true, but less urgent reason, that abstinence for social causes, perhaps on all grounds of health and morals, is the better way.

"Besides, there is something mocking and cynical in going to a person to whom drink is a temptation—the power of which is difficult to realize by those who have given little attention to the matter—who is shaken by the very scent of drink as by some outside physical force, who craves for alcohol as the hart pants for the water-brooks, even when he knows it is like the rill in German story, which babbled as it ran along, 'Whoever drinks of me will become a wild beast'—there is something cynical, I say, in virtually appealing to such a one, '*You to whom this is so tremendous a struggle must make it, but I to whom it is next to none will not share your burden with you.*'"

But God sometimes speaks through a single individual experience with a voice that smites like a sword sheer through the most impregnable walls of plausible and specious argument in which we selfishly intrench and conceal a cherished evil. Nothing that any one can say, be it ever so cleverly, in favour of alcoholic liquors, can stand

Charles Lamb's warning appeal to young men.

for an instant before but one such heart-rent warning as these words of Charles Lamb:—"O if a wish could transport me back to those days of youth, when a draught from the next clear spring could slake any heats which summer suns and youthful exercise had power to stir up in the blood, how gladly would I return to thee, pure element, the drink of children, and of childlike holy hermits! In my dreams I can sometimes fancy thy cool refreshment purling over my burning tongue—but my waking stomach rejects it. That which refreshes innocence only makes me sick and faint. But is there no *middle way* betwixt total abstinence and the excess which kills you? For your sake, reader, and that you may never attain to my experience, with pain I must utter the dreadful truth, that there is *none, none.*"

Dr. Howard Crosby's objections to the temperance pledge, and Mr. Wendell Phillips' reply.

§ 77. The question of the worth and effectiveness of the temperance pledge has evoked a deal of specious reasoning. Dr. Howard Crosby, of New York, an influential advocate of the so-called moderate use of alcohol, in his lecture on *A Calm View of the Temperance Question*, delivered in Tremont Temple, Boston (January 10, 1881), declared the temperance pledge to be "a most pernicious instrument for debauching the conscience . . . always an injury and never a help to a true morality . . . a substitute for principle, an invitation to further sin."

In the same hall, two weeks later, Mr. Wendell Phillips replied, and concerning the true significance of taking the pledge, he said—

"Dr. Crosby passes to the great weapon of the temperance movement, the pledge. This he calls 'unmanly,' 'a strait jacket;' says it kills self-respect and undermines all character.

"Hannah More said, 'We cannot expect perfection in any one, but we may demand consistency of every one.'

"It doesn't tend to show the sincerity of these critics of our cause, when we find them objecting in us to what they themselves uniformly practise on all other occasions. If we continue to believe in their sincerity, it can only be at the expense of their intelligence. Dr. Crosby is undoubtedly a member of a church. Does he mean to say that when his church demanded his signature to its creed and his pledge to obey its discipline, it asked what it was

'unmanly' in him to grant, and what destroys an individual's character—that his submission to this is 'foregoing his reasoning,' 'sinking back to his nonage'? etc. Of course he assents to none of these things. He only objects to a temperance pledge, not to a church one.

"The husband pledges himself to his wife, and she to him for life. Is the marriage ceremony, then, a curse, a hindrance to virtue and progress?

"I have known men who, borrowing money, refused to sign any promissory note: they thought it unmanly, and evidence that I distrusted them. Does Dr. Crosby think the world should change its customs and immediately adopt that plan?

"Society rests in all its transactions on the idea that a solemn promise, pledge, assertion, strengthens and assures the act. It recognizes this principle of human nature. The witness on the stand gives solemn promise to tell the truth; the officer, about to assume place for one year or ten, or for life, pledges his word and oath; the grantor in a deed binds himself for all time by record; churches, societies, universities, accept funds on pledges to appropriate them to certain purposes, and to no other—these and a score more of instances can be cited. In any final analysis all these rest on the same principle as the temperance pledge. No man ever denounced them as unmanly. I sent this month a legacy to a literary institution on certain conditions, and received in return its pledge that the money should ever be sacredly used as directed. The doctor's principle would unsettle society, and if one proposed to apply it to any cause but temperance, practical men would quietly put him aside as out of his head.

"These cobweb theories, born of isolated cloister life, do not bear exposure to the midday sun or the rude winds of practical life. This is not a matter of theory. It must be tested and settled by experience and results. Thousands and tens of thousands attest the value of the pledge. It never degraded, it only lifted them to a higher life."

The fallacy of positive deductions in arguing the general from the exceptional.

§ 78. To take up, in closing, some of the well-worn arguments, based on exceptional instances, which greatly help in forming and cementing the habit of drink, I may cite the very common one of the man who says he has drunk daily, one, two, or three glasses of wine or beer, with or

without a glass or two of whiskey, for the last ten, fifteen, or twenty years. "Just look at me!" he says. "Don't I look well? Why, I look in better health than you do, and I've never known a sick day. Don't that prove that moderate drinking is good for a man?"

This sort of talk never seems to arrest attention as to the selfishness* of thinking of such a broad question only as it concerns the individual. Concerning the individual, it sounds convincing, and does convince, or rather satisfy many. But considering it impartially, we have to inquire into the character and condition of this man. Is he trustworthy on other points? for if not, there is, of course, no reason to take his testimony on this. If he is trustworthy, the value of his testimony depends upon what are his notions of health; whether he means by health merely the ability of daily attending in the usual more or less humdrum way to his duties, or the bounding energy which makes work a pleasure, and leaves one a surplus for joy and rest when work is done. We must know if his parents or grandparents drank, and to what degree; whether he was orderly or dissolute in his youth; at what age he began to use intoxicants, what his occupation has been, and what care or precautions he has taken to preserve his health. On such and many other points full information is essential to a just estimate of his evidence in favour of drinking.

Examples. Until cases of moderate drinking continued through two or three generations can show generally healthy descendants in the third generation, this plea, usually claimed as a "knock-down" argument, has absolutely no value, except to point the self-absorption of the man who makes it, and those who are influenced by it.

Another argument very frequently advanced is that drinkers, and not only moderate ones, live longer than other people, unless accident or high living carry them off.

Such an argument regarding alcohol is neither better

* "One long-lived glutton or drunkard kills more by his example, and the flattering hopes those who know not their own strength and what they were made to bear, entertain, than Hippocrates ever saved."—George Cheyne, in *Natural Method of curing the Diseases of the Body and the Mind* (London, 1742).

founded nor more logical than it would be if applied to exceptional longevity in cases of persons living in malarial localities, or surviving the ordeal of the Sierra Leone, or employed as needle-grinders in Sheffield. According to statistics, the age of the latter seldom exceeds forty years. In the face of this fact, occasional instances of a longer term of existence among them would hardly lead to an advocacy of the employment of needle-grinding as conducive to long life.

Neither would the fact that a man and his family have lived in fair health all their lives to a good old age over a fœtid cesspool—as seems to have at times happened—be likely to be advanced as an argument in favour of generally establishing such reservoirs of pestilence under the family hearth-stone! I once heard of an extraordinary accident happening to a man at work where blasting was being done. During a premature explosion, a long piece of the drilling bar shot upward from the pit which was being excavated, and, entering the man's head under the chin, passed vertically entirely through his head, and, still ascending, fell at last at some distance. He staggered and fell, and his instant death was naturally expected. Not so. To the amazement of all, and the downright incredulity of physicians, he recovered, and, whereas he had been before the accident morose and unreliable, he was now genial and to be depended upon. But from this it would hardly be argued that men should subject themselves to this sort of experiment as probably conducive to improvement in temper and character!

But even supposing this argument of alcoholic longevity were true, are not the drinkers overwhelmingly more numerous than the abstainers; and therefore, other things being equal, the number of aged drinkers would, of course, be greater than that of aged abstainers; and what criterion of comparison has been used for the longevity? To judge from the insurance and other statistics which are quoted in chap. x., comparing, under equitable conditions, equal numbers of drinkers and abstainers, it was found that abstainers much more generally reached an advanced age than drinkers.

But what does this plea for longevity mean, urged by

people whose chief aim in life is not to live—is to kill time, not to use it; and who, if not successful in killing time, do not unfrequently kill themselves?

If longevity were the measure of effectiveness, if drinkers counted each day a priceless boon to be used as nobly as they knew how, then indeed would this argument, if true, be powerful in favour of alcohol. But we have yet to see a man whose character has been ennobled by drinking, or a drinker who grows nobler and better as he grows older. On the other hand, it is a fact that some of the most effective lives have been short. And of only three years of public work—such work as no man has measured nor can measure—did not the Master say, "It is finished"?

CHAPTER XIII.

WHAT CAN BE DONE?

"While drinking continues, poverty and vice will prevail; and until this is abandoned, no regulation, no efforts, no authority under heaven, can raise the condition of the working classes. It is worse than a plague or a pestilence, and the man is no friend to his country who does not lift up his voice and proclaim his example against it."—Mr. J. LIVESEY, in the *Moral Reformer*, July 1, 1831.*

"Drink, the only terrible enemy whom England has to fear."—The late PRINCE LEOPOLD, Duke of Albany.

§ 79. IN discussing the question of what can be done to reduce and vanquish the drink-evil, the limits and proportion of the present work restrict me in touching upon what has been done—a noble record, full of interest—to only such general mention or occasional particularization as is essential to the consideration of further reform effort.

In the opening pages of this book it was pointed out that among the ancients the severest laws were put in force against drunkenness; that it was even, and not unfrequently, punished with death. Ancient legal and historical writings are replete with edicts and instances showing that drunkenness was treated as a great crime.†

Why did the temperance reform efforts in the past fail?

Why have such efforts failed even up to the present century?

Why, at various times during the last fifty years, have

* Mr. Livesey's first public denunciation of alcohol.

† See Xenophon, Plato, Athenæus, Plutarch, Pliny, Dion of Halicarnassus, Diodorus Siculus, Strabo, and others.

apparently great strides towards temperance alternated with great relapses?

What reasons have we to expect or hope that the present popular interest and labours in the cause of temperance are sowing the seed of a permanent success?

Why past temperance efforts failed.

One large general difference between past and present efforts in regard to temperance lies in this broad distinction between the two ages, that in antiquity the nation was for the government, or rather the sovereign; while in our days governments, generally speaking, exist for the people.

Antiquity lacked the innumerable means of bodily and mental communication, which, irrespective of the demarcations of birth, fortune, and special circumstance, suffice in our day to bring men together on one common intellectual level in the study of mankind.

Their character.

Among the ancients, temperance decrees proceeded from the sovereign. They were framed to include only such of his subjects as enjoyed the royal favour, and to these the royal mandates were a matter of blind obedience, not of persuasion or conviction. Such decrees were as fitful in their character and occurrence as the whims of the monarch issuing them; their observance depended on the subjects' loyalty, usually an allegiance of craft or fear; and they contained no element of reform, although at long intervals, great historians, philosophers, and physicians sounded the note of warning.

In later ages the popes sometimes united with the rulers of Europe to stay the evil of drink, but to little purpose. So-called moderation societies were even formed among the nobles of Germany.

Early moderation societies.

Dr. Baer mentions, in his *Alcoholismus* (Berlin, 1878), that "The First Order of Moderation" was founded by Frederick III.; that the badge, a cross with a design of tankards, and inscribed with the motto *Halt Mass* (be moderate), was worn by the emperor at festivities; that his son, Maximilian I., publicly expressed his abhorrence of intemperance at a number of his diets; that the knightly order of St. Christopher, "for the abolition of profanity and drinking," was founded early in the sixteenth century by Sigismund von Diedrichstein, a nobleman of Carinthia and Styria; and that a few years later an abstinence fraternity was instituted by Louis, Count

Palatine, and Richard, Elector of Trèves, fifteen bishops and princes, and many nobles entering it.

Special reasons for their failure.

Dr. Baer also refers to the *Palatine Order of the Golden Ring*, the symbol of membership being a gold ring, which was forfeited back to the community by any member who proved recreant in drinking toasts; and mentions the famous temperance order founded by the Landgrave of Hesse in 1600.

Yet all these societies, and numerous others which succeeded them, like the efforts made in antiquity, soon passed away. Why? Chiefly for these reasons: firstly, because they lacked what we possess—the knowledge that alcohol is always a poison—and therefore naturally imagined the only remedy necessary lay in moderation; secondly, because these societies did not originate in moral conviction of the nature of the evil they were to operate against: they were not formed with any reference to rooting out intemperance among the people, but were due rather to the proud egoism of the nobles, who, indifferent to the vice as it existed among the masses, nevertheless disdained to practise in common with them.

Characteristics of the modern temperance movement.

This century (nineteenth) has seen a marked departure from the whole past in a great many respects, but in perhaps nothing so decisively as in the constantly increasing recognition of the sovereignty of the individual, and the absolute interdependence of all individuals, high and low, rich and poor, of which recognition the general education of all youth is a proud instalment.

Whence we have the steadily growing tendency to level all barriers interfering with a universal mental development; and in the struggle for progress, in the sturdy investigation of the causes of the inequalities which constitute all the difference between worth and worthlessness, between happiness and misery, the students of humanity have discovered that alcohol is a chief agent, *the* chief agent, in the sense that intemperance produces, is often produced by, is associated with, and gathers to itself, all other kinds of vice and degradation.

Hence the modern temperance movement is based on knowledge, conviction, and aspiration, and on a sentiment of fellowship and fraternity much deeper and stronger than has ever been felt before.

This points the essential difference between the past and the present.

The epoch originating the present popular temperance movement; how it progressed, collapsed, and revived.

About fifty years ago there sprang up almost simultaneously from among the hard-working masses of America, Germany, Great Britain, and Sweden, the core of the present popular temperance movement.

These little bodies took the position that alcoholic drinks are always harmful, to the individual, society, and the State.

They discontinued drinking among themselves. They went, like the apostles of olden times, among the people to preach the only temperance gospel; they were loyal, patient, and earnest, and their words, works, and lives carried conviction into millions of hearts.

Still, in a few years the whole movement had subsided, and most of those who had promised reform went back to their old habits and associations, but—not all.

Meanwhile, the great advance made in physiological science had naturally been applied to the investigation of the effects of alcohol on the human system, and the ominous dicta of that science, coupled with the appalling reports of the effects of drunkenness as made by a more perfect statistical system, corroborated and strengthened by the genuine and noble pleas of the little band of faithful ones, re-awakened public interest, and this fresh impulse, supported by increased practical knowledge of the true character of the evil, has led to many attempts and plans for reform.

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§ 80. The present remedial efforts are usually summarized under the following three heads—political, social, and individual.

And this being the order in which success is most generally anticipated, I will deal with them in this order, although, for my own part, I believe that individual and social reform must be the basis of any permanently good temperance legislation.

There seems to be much misunderstanding and confusion as to what may reasonably be expected from Government.

Summary of

As regards England, every Englishman knows that

this Government is theoretically of the people, through the people, and for the people. Any Government lacking this qualification would soon cease to be.

the character and extent of the powers and obligations of the British Government in internal reforms.

Modern English history teems with incidents substantiating this statement. Even a single unpopular measure has more than once been sufficient to overthrow the Government passing it. All that exists, therefore, politically speaking, by its very existence proves the nation's acceptance thereof, just as much as its disappearance would prove the nation's disapprobation.

But while this is true theoretically, and would, in any matter which thoroughly aroused the masses, become true in fact, we have to remember that the masses are slow to bestir themselves. They are like the cow in the pasture, to use a homely illustration—calm, benevolent, cud-chewing, drowsily indifferent to what sort of measures or reforms are being adopted by the fence-makers, secreting and daily yielding with little demur rich streams of milk; but if the cow be too much baited, the udders secrete little, yield less, and a vicious not-to-be-mistaken kick upsets the milk-pail, milk and all.

The sovereign power, and hence responsibility, of the masses.

The masses have practically let their power slip out of their hands, and, though they can at any time resume it, busy and inured to routine, they are not readily roused to do so. Then the suffrage is restricted, the land and wealth of the country is controlled by the few magnates, and while the masses acquiesce in this state of affairs, the will of the people amounts to the will of the magnates.

This will is expressed through the members of Parliament, and the Government being party government, its existence depends upon its loyalty to party interests. Both of the ruling parties vie with each other for popular favour—the Conservative in the direction of maintaining the past in politics; the Liberal in the direction of a methodic, slow, and safe transformation and extension of political powers and rights in accordance with the imperative needs of the age. Both parties champion popular opinion when out of office, and both of them when in office, as far as is safe for their tenure of office—forced, perhaps, by exigencies and considerations they had not pre-estimated—ignore and defy it. In such circumstances the Government, being unable to pass measures without its party's

consent, cannot safely ignore or resist its party; and, as the wealth of the country is largely concerned in the liquor trade, and as the liquor trade is the largest and surest resource of government revenue, it must be apparent that pressure for complete or only partial prohibition, unless such pressure be brought to bear by the solid masses of the country, is not likely to meet with ready response from either Parliament or Government.

The people responsible for the morality of Parliament and Government, not the Government for that of the people.

Another mistaken notion as to the nature and function of Government, is that of supposing it to be a moral guardian of the people. The office of a constitutional government is nothing more and nothing less than that of faithfully executing the laws and decrees of the country in an almost machine-like manner, and of taking no initiative for either making or abrogating laws without unmistakable evidence of the nation's readiness and desire.

The avalanches of contumely which have been heaped upon governments for not supporting legislative measures of or tending towards prohibition, have mostly sprung from this erroneous assumption, that the Government is the moral guardian of the nation.* If temperance is made a national instead of a party question, Parliament and Government will make no objection, because on national questions Parliament speaks for the people, and on such questions the Government is as sensitive to Parliament as is the exchange to financiers. As long as the national will is not pronouncedly against the liquor trade, Parliament will remain practically deaf to special petitions; but as soon as the nation sees the evil of the liquor trade no Parliament can uphold it. Any attempt by Government to forestall the popular mind on this question would be a usurpation of popular rights, likely to be productive of

* I wish, however, not to be misunderstood as meaning that morality ought to be separated from politics. I think it indispensable to vital morality that no division should exist between private and public morality; personally, I believe the two to be inseparable. But it is the *people* who are responsible for the morality of Parliament and Government, not the Government for that of the people. If a country is animated by morality, its laws, representatives, and government must be moral; but if, on the contrary, greed, expediency, and political sophistry are the motive forces of national life, they will inevitably get their completest expression through the representative and executive bodies.

more harm than good to the temperance cause;* although of course it is not only laudable, but the positive duty of Government members to, in an unofficial capacity, assist in educating the popular mind on this subject.

As Zschokke says, in his *Branntwein Pest* (*The Brandy Pest*, Arau, 1857), "All laws are powerless for extinguishing an evil which has taken root in the life of the people; it is from the people itself that the reform of morals must proceed, but no government is strong enough to bring it about."

Dangers attending political agitation on moral issues

§ 81. It is a grave question whether the continuous bending of all efforts in the direction of legislation does not divert the individual mind from the individual importance of the subject; whether this making of a profoundly moral subject into one of legislative controversy, of making a national and race issue a shuttlecock between political parties—a gambling stake for office—is not vitiating the cause of temperance.

The defence of the country against invading armies is not allowed to be a question of party tactics, neither should the question which, in case of an invasion, would more than any other decide the issue of the contest.

The paramount importance of sobriety for the protection of national independence.

As in the case of an invasion, her army and navy would be England's dependence, the enforcement of absolute sobriety among the defenders of the country, officers and men alike, would seem to be a paramount duty of Government. History furnishes ample precedent that nearly all the ancient, many mediæval, and some of the modern powers (notably American) prohibited and prohibit drinking in their armies and navies.

In the vigorous days of ancient Carthage and Rome, the penalty for drunkenness in the army was death; and long after, when the people generally had become abandoned to drink and debauchery, the discipline of sobriety was enforced among the troops, although at last they fell to drink and then their countries were vanquished.

The battle of Hastings lost through drink.

It is an historic fact that the Anglo-Saxon power was

* "We win a surer victory when public opinion is with us than when by catch-legislation we anticipate that public opinion, and suffer, according to the law of the universe, a swift reaction."—Bishop of Rochester, in his address on *Temperance* at Victoria Hall, Lambeth, Nov. 12, 1883.

conquered by its intemperance, just as were Babylon and Syracuse of antiquity. Hume states that King Edgar strove to check intemperance by allowing only one ale-house to each town. Still, we find that the Anglo-Saxon army passed the night before the momentous battle of Hastings in drink and riot, while the numerically inferior Norman forces passed it in prayer and fasting.

Says Fuller, in his *Church History of Britain*:—

"The English being revelling before, had, in the morning, their brains arrested for the arrearages of the undigested fumes of the former night, and were no better than drunk when they came to fight." *

England must look to it that the ravages from drink are stopped before it is too late.† Commenting on the

* E. C. Delavan, in his *Temperance Essays* (New York, 1866), quotes from the *Richmond Enquirer*, Confederate organ (Oct. 6, 1864), the following concerning the downfall of the Confederacy of the Southern States:—

"Do you ask for an explanation of these rapidly occurring disasters in a portion of the State where the Confederates, until the 19th ult., never suffered defeat? Here is the key to our reverses. Officers of high position, yes, of very high position, have, to use an honest English word, been drunk—too drunk to command themselves, much less an army, a division, a brigade, or a regiment. And when officers in high command are in the habit of drinking to excess, we may be sure their pernicious example will be followed by those in lower grades. The cavalry forces that had been operating in the valley were already demoralized, and since their last visit to Maryland they have been utterly worthless."

† In last year's session of Parliament (1882), it was stated, in defence of the soldiers' beer-drinking, that the beer consumed by them was not the vile stuff ordinarily sold; but this argument is simply saying that there is a difference in the kinds and degrees of harmfulness in a specified compound, since all alcohols in whatever quantity or quality have been proven to be poisonous.

In a remarkable symposium contributed by several Belgian military surgeons to the *Belgian Army Journal* (1879), one of the writers urges earnestly that the drink-evil in the army should be combated by forbidding the sale of brandy and other spirits in the canteens of the barracks. A vast quantity of spirits is, it is stated, sold in these establishments, and it is in them that the young recruit begins to drink and acquires a taste for liquor, with the sanction, as it were, of the military authorities, who supply the premises where the drinking goes on. And not only does the soldier in every interval between drills repair to the canteen to refresh himself with a "nip," but brandy is bought and carried into the men's rooms, where non-commissioned officers and men carouse together, to the great prejudice

general condition of some troops that had just passed through Canterbury *en route* to India, the *Echo* (January 4, 1884) said, "The march through the town to the station the next morning was most disgraceful. The men were too drunk to keep ranks, and dropped portions of their equipment as they staggered along. At the station they were quite mutinous, refusing to obey orders; and one, in North-country brogue, was heard to say he would shoot his captain when he reached India."

The *Echo* on drunkenness in the army.

Some of the principal English officers, in both army and navy, inveigh frequently against drinking among the troops. In a letter to John Bayley, Esq., President of the Grantham Temperance Association, April 21, 1881, Sir Garnet, now Lord Wolseley, wrote :—

"The cause of temperance is the cause of social advancement. Temperance means less crime, and more thrift and more of comfort and prosperity for the people.

Lord Wolseley on the army and drink.

"Nearly all the crime in our army can be traced to intoxication, and I have always found that when with any army or body of troops in the field there was no issue of spirits, and where their use was prohibited, the health as well as the conduct of the men were all that could be wished for"

And to a Good Templar meeting, held in Morley Hall, Hackney, in November of the same year, he wrote :—*

"About ninety per cent. of the crime in our army is owing to drunkenness, and when our men are removed from the temptation of intoxicating liquor, crime is practically unknown amongst them. During the operations I conducted in South Africa in 1879, my own personal escort was composed almost exclusively of teetotalers. They had very hard work to do, but grumbling was never heard from them, and a better behaved set of men I was never assisted with—a fact which I attributed to their being almost all total abstainers."

In his speech to the troops at Chatham,† Cardinal Manning narrates of Sir Charles Napier, that—

Cardinal Manning on the same.

of discipline. If this sale of spirits were forbidden, better coffee would, it is argued, be provided in the canteens, and the soldier would drink this instead of brandy, to the great benefit of his health.

* See *Alliance News*, November 5, 1881.

† See *The Universe*, July 22, 1882.

"When he was 'tumbled over, with forty others, by the sunstroke,' and being himself the only one who did not succumb, he attributed his escape from death to the fact of his being a total abstainer, saying, 'the sun found no ally in my brains.'"

Major-General Sir Evelyn Wood, in addressing the same meeting, is reported * as saying :—

Major-General Sir Evelyn Wood, in confirmation of Cardinal Manning's statement.

"That his experience fully bore out what his Eminence had said. Some of the soldiers present would doubtless say, 'Oh, it's all very well for the Cardinal to talk about total abstinence; but it won't do for us. We cannot act up to it!' Well, he could assure them it was a matter of regret to him that, in his early career, in the navy and the Naval Brigade, he had not the advantages of being a total abstainer. . . Some four years ago, Colonel Hope, of the 12th, had told him that if he had to go through his thirty years' service again he would become a teetotaler. Throughout the Crimea those were the best and most healthy soldiers and sailors who did not touch intoxicating drink. He (Sir Evelyn Wood) also served three years in India, including the last fifteen months of the mutiny, and he could positively state those who drank nothing were the best men. He went to the Gold Coast, and during the hundred and fifty days they were in one place he put in a hundred and forty-six days' service, only to find himself beaten by the attendance of a man who was a teetotaler. During the last three years he had rounded the Cape of Good Hope four times, and he found that the stokers who had to work in the heated stokeholes of the large ocean steamers never drank anything but barley water when in the tropics. Throughout the Zulu campaign he had two regiments under him, one young, and the other old. There was little or nothing to choose between them for good conduct or discipline, because they were unable to get anything to drink. They were the 30th and the 90th Light Infantry, and they stood at the head of the list of the British army for good conduct. He had beforehand taken particular care there should be no liquor in the place, as he feared any signs of drinking might lead to a disaster before the enemy."

§ 82. A necessary step towards the solution of the liquor

* See *The Universe*, July 22, 1882.

question, it seems to me, is that all points which make it a *party* question should be removed.

As a result of political *party* agitation on this question, we find the whole machinery of the wealth, intelligence, and political influence interested in the defence of the liquor trade, engaged in forming a third party strong enough to hold the balance of power in the House of Commons. They have, happily, not yet succeeded.

Mischiefs that have resulted from prematurely driving the liquor-dealers into self-defence unions, by indiscriminate political agitation for prohibition.

It is still fresh in memory how the liquor-dealers in the last election strained every point to secure the election of only such candidates as were in favour of their retaining their present privileges. The *Alliance News* (January 4, 1879) cites a conspicuous example. "At the election of a member for Bristol," it says, "Mr. R. C. Smart, Treasurer of the Licensed Victuallers' Association, said, 'Politics mean self-interest,' and Mr. Collins 'hoped and trusted they would all act according to their *consciences for the benefit of the trade*.'"

And Canon Ellison,* in his admirable letter to Earl Stanhope, on *The Church of England Temperance Society in the Recent Election* (1880), drew further attention to this point:—"The Licensed Victuallers," he says, "for the first time, I believe, in our history, publicly, formally, as a body with interests of their own separate from those of the whole community, had drawn up their test for Parliamentary candidates, upon the acceptance of which their support, as a united body, was to depend. At a meeting of the Licensed Victuallers' Protection Society of London, Mr. J. F. Deacon, the chairman of the society, who presided on the occasion, stated that *very complete arrangements had been made for dealing with candidates at the General Election. To every gentleman who sought their suffrages four test questions would be submitted, and the way in which those questions were answered would decide their action towards the candidate. The questions are as follows:—*

"1. Will you, if returned to Parliament, oppose every Bill or measure which aims at transferring the licensing powers from the present authorities (the Justices of the Peace) to periodically elected local boards or bodies, municipal, parochial, or the like?

"2. Will you support and advocate the principle that

* Chairman of the Church of England Temperance Society.

for any depreciation in the value of the property of licensed victuallers, resulting from future legislation, they should be entitled to fair and full pecuniary compensation?

"3. Will you oppose any measure having for its objects the curtailment of, or interference with, the present hours of opening and closing public-houses, either on Sundays or on other days of the week?

"4. Will you give your support to any measure having for its object the placing of all 'off' licences under the same authority and regulation as other licences?"

And the state of affairs brought about by the prohibitory agitation in the United States is shown in the Annual Report of the Brewers' Congress, held at Washington, May, 1882. The following is a summary of it as published in the supplement of the *National Temperance Advocate*, of New York, June, 1883:—

"The twenty-second annual convention of the United States Brewers' Association was held in Washington, D.C., May 11 and 12, 1882. A Washington brewer, Mr. Heurich, representing the brewers of the national capital, called the convention to order and made an address of welcome, in which he congratulated the brewers upon their having come to the capital when the United States Congress was in session, with an opportunity to meet and greet their senators and representatives, and the officers of the government with whom they have, as brewers, business contact; concluding with an expression of the hope that their coming might be made '*instrumental in clearing the dark clouds* which, in many parts of the country, threaten our time-honoured business.'

"The president of the Association, Mr. H. B. Scharmann, of Brooklyn, N.Y., then delivered his annual address, in which he congratulated the brewers that in this country 'the consumption of beer has gone up during eighteen years 679 per cent.'

"He gave the number of breweries at 2,474; stating that 30,000 persons are employed in the beer business, and that it has a capital of 152,524,720 dollars invested in it. There were 8,536 retail, and 2,034 wholesale dealers in malt liquors during the special-tax year ended April 30, 1881.

"There were reports submitted from the 'Agitation

Committee,' the 'Publication Committee,' by the attorney, Mr. Schade, etc. The Agitation Committee reiterate their claim for beer as a 'temperance' beverage.

"The Publication Committee report that they have printed and distributed nearly 115,000 pamphlets and broadsides, and that these pamphlets are electrotyped, and, 'after a certain number of the pamphlets have been placed where most needed at the expense of the fund, additional copies, where ordered, are furnished at the actual cost of the paper and press-work.'

"The report of the attorney, Mr. Schade, recounts among other things his successful opposition in Congress to the Commission of Inquiry bill, and to the measures for the prohibition of the liquor traffic in the District of Columbia and the Territories.

"In response to the petitions from the brewers of Iowa, Michigan, and Indiana for financial aid to help defeat prohibition in those States, 2,000 dollars were appropriated to Michigan, 3,000 dollars to Iowa, 5,000 dollars to Indiana, and 500 dollars to Kansas. Much larger sums are understood to have been contributed through other channels."

The earliest moment when prohibition can become a practical and beneficent fact.

As long as the masses have not become intellectually convinced that the harm done by the liquor traffic is greater than the good claimed for it, such as the multifarious employment of many, and the constant and large revenue it returns,* so long will any attempt to enforce prohibition† fail, and in their failure promote the traffic. Every

* The terrible cost of these very advantages, in morals, health, and finance have already been pointed out in the chapter on *Social Results*. *The Echo* (February 7, 1884) states that in his message to the Ohio State Legislature, Governor Forster "declares that in twelve months four thousand five hundred liquor saloons had gone out of existence, and that two million dollars had been added to the revenue."

† England and Ireland have already witnessed the beneficial results of a partially effected prohibition.

In writing on *The Police of the Metropolis* in 1800, Mr. Colquhoun describes the situation in London during the embargo on the distilleries, 1796–97, when bread and other foods and necessaries were greatly increased in cost by the scarcity of grain; yet the poor lived better, were more comfortable, and paid their rent with less difficulty than for many years previously, and there was both less brawling and less pawning. "This," says Mr. Colquhoun, "can only be ac-

sincere friend of the temperance reform cries out with the eloquent Canon Farrar: "How long do you mean this to continue? How long are our working classes to be hemmed in with glaring temptations, and their dwellings to be ringed by public-houses on all sides as with a cordon of fire? How long is the reeling army of our drunkards to be recruited by those who are now our innocent sons and daughters?"*

The writings of such men as Dr. F. R. Lees, in England; ex-Bailie D. Lewis, in Scotland; Judge Pitman, in America, and many others, have taken the question of the justice, wisdom, and legality of prohibition theoretically quite out of the list of disputable issues: it is only around the question of its best practicable application that doubt can still be entertained.

The hopeful omen of the Queen's last speech.

The extension of suffrage, "with the enlargements of the powers of ratepayers through the representative system, including among them the regulation of the traffic in intoxicating liquors," promised in the Queen's speech, opening Parliament (1884), is a hopeful omen that we are at last to know what the people really think and want.†

counted for by their being denied the indulgence of gin, which had become in a great measure inaccessible from its very high price." And in Ireland a similar temporary prohibition measure had like consequences, in allusion to which the writer of *An Inquiry into the Influence of Ardent Spirits in Ireland* (1830) states, "The population of Ireland was enabled to consume a greater quantity of articles of luxury and comfort than in years of absolute plenty." And yet, the popular sympathy not being enlisted, these measures with all their benefits could only be maintained for a short period, and when the reaction came, drinking and crime became more prevalent than before.

* Sermon in Westminster Abbey (November 19, 1883), on the occasion of the twenty-first anniversary of the Church of England Temperance Society.

† "The Grand Jury cannot withhold from the court the amazement and horror which they have felt during their investigations, at the systematic countenance of and encouragement to vicious conduct, by the facilities afforded by the numberless places of resort for drinking and profligacy, thereby providing nurseries for crime and destitution; and they earnestly hope that some effectual steps may be taken, either by the withholding of licences or curtailing the hours for the sale of intoxicating liquors, and thus grapple with a system of demoralization as antagonistic to the interests of religion, and as

§ 83. But pending the general and full development of popular conviction and will, up to the point of an irresistible demand that the traffic shall cease, there are various valuable initiatory legislative measures in that direction, which might be taken.

Various preparatory measures for general prohibition.

First in point of time is Local Option; a measure almost wholly due to the untiring efforts and labours of thirty active years by the United Kingdom Alliance, and particularly to its brilliant and wise presidents, the late Sir Walter Trevelyan, and the present Sir Wilfrid Lawson, whose motion reads thus: "That the best interests of the nation urgently require some efficient measure of legislation, by which, in accordance with the resolution already passed and re-affirmed by this House, a legal power of restraining the issue or renewal of licences for the sale of intoxicating liquors may be placed in the hands of the persons most deeply interested and affected, namely, the inhabitants themselves," and whose work for securing this reform during the years 1879 and 1880 fully equalled the efforts of Mr. Gladstone to overthrow the Beaconsfield government, both in energy, conclusiveness, and eloquence. That his work promises to meet with deserved success is shown in the victories he has already gained.

Local Option.

Sir Wilfrid Lawson's scheme.

In 1880, before the general election, Mr. Gladstone publicly expressed his disapprobation of the scheme of local option; but when the measure was brought into the House, Mr. Gladstone said: "I earnestly hope that at some not very distant period it may be found practicable to deal with the licensing laws, and in dealing with the licensing laws to include the reasonable and just measure for which my honourable friend (Sir Wilfrid Lawson) pleads."

In three successive sessions of the present parliament the local option resolution has been passed by steadily largely increasing majorities; on the 27th of April, 1883, it was passed in the House of Commons by a majority of 87.

Concerning this result, the *Times* of the next morning (April 28, 1883) said: "Sir Wilfrid Lawson must be satisfied for the present with the reception he has gained

injurious to the social well-being of all classes of the community as it is degrading to us as an enlightened nation."—Presentment of the Grand Jury at the Central Criminal Court (London, November, 1862).

for his resolution in favour of Local Option. The announcement of Sir William Harcourt that the Government accepts the principle of the resolution and will take the responsibility of giving effect to it, has put the whole question on an entirely new level. The thing, it is now certain, will be done; Local Option in some form or other will be granted; the time and the manner alone remain to be determined."

The Local Option Resolution of the great temperance meeting in Edinburgh, March 3, 1884.

At the great temperance meeting at Edinburgh, March 3, 1884, the Rev. Dr. Adamson, in supporting the resolution (in favour of the Local Option resolution)—"That, whilst resolved to maintain all existing legal restrictions on the sale of intoxicating liquors, and whilst recognizing that the House of Commons has affirmed that the ratepayers should possess a 'legal power of restraining the issue and renewal of licences,' this convention hereby declares that no legislative measure on this subject will be satisfactory which does not confer upon the ratepayers in parishes, burghs, and other districts the full legal power of controlling the drink traffic, and also of prohibiting it, where a majority 'shall think meet and convenient' that the traffic should not exist"—added that "he wanted to say that modern legislation was going straight in the direction of trusting all matters pertaining to the social, moral, and intellectual well-being of the people to the people themselves; and he needed not to tell that great meeting that on the whole they made a proper use of what they had got. At present they elected their municipal authorities, the education boards, the parochial boards, and they elected their ministers of religion. . . . Why, then, should they withhold from the common people the right to deal with the curse of intemperance? It was said those houses were put down for the convenience of the people; not for the convenience of the men who hold the licences, but for the benefit of the community at large. He concluded by saying they would never rest satisfied till the people were entrusted with the power to say whether public-houses should be set down in their midst."

The attitude of the Government toward it.

On May 7th (1884) a large deputation from this convention waited upon Sir William Harcourt, who said to them, "The views of the Government have been distinctly stated as being in favour of the ratepayers having the

power of determining in each locality what they desire with reference to the drink traffic. I stated that last year in my speech on Sir Wilfrid Lawson's local option resolution. I have nothing now to add to it, and nothing to change. I adhere entirely without modification to what I then stated on behalf of the Government. We desire that the local authority should have complete control over the drink traffic; that the locality should determine what houses should be licensed; whether any, or none at all, or how many; when they should be opened or closed, etc.; in point of fact, that the locality should have complete and absolute authority to treat this as a local question, and not one as it has hitherto been regulated in every place by a fixed statute, which seems to me not appropriate to a question of this kind. We regard it as a question affecting the general welfare of a particular community like anything affecting its health, or morals, or those other matters which are now confided to its local authority. . . . Nobody is more anxious than I am, or more willing, to go far in the direction of restraining the evils of the drink traffic—as far as possible."

The question of compensation to the publicans.

In Sir Wilfrid Lawson's bill for local option there is no mention of the much-agitated question of compensation * to the publicans.†

No doubt this point is a most delicate one, and difficult of solution; but it must be solved in some way. Many arguments tell against material compensation, but there are arguments of weight both as to expediency, honesty, and justice, which indicate that the publicans should receive some consideration in this matter.

Their privileges have been recognized for hundreds of years, during at least the earlier part of which time it was not known that any evil inhered in drink itself, but only in

* See Appendix on compensation.

† "It is only with the growth of democracy that here also we are slowly approaching a time when the rights of property will be frankly subordinated to the rights of humanity and the good of the body politic. At present such doctrine is 'unsound,' for in a society still essentially plutocratic we recognize—though it is not considered seemly so to express it—that a man may have a vested interest in poisoning his neighbours, and must not be prevented from doing so except upon adequate compensation."—*Pall Mall Gazette*, April 10, 1884.

its immoderate use. Through ignorance, the liquor trade occupied a moral plane from which science has since overthrown it.

The publicans' side of the question.

The fact that this ignorance is removed, that alcohol is at last known to be rank poison, though it changes vitally and fatally the moral position of those who sell it as a common beverage, does not therefore absolve society from all duty of consideration for the liquor-dealers; nor is it likely to prevent liquor-dealers—with whom long habitude has also done its work, and in the continuance of whose "time-honoured privileges," as they not untruly call them, the homes and livelihood of hundreds and thousands of persons are bound up—from mustering all their forces to avert the legal ruin which abrupt or rapid prohibition, without some reasonable pecuniary or other compensation, would be to them. It may be that the character of a trade is not always necessarily germane to the question of its right to existence, especially if its very foundation was laid in legal recognition and State protection. If in ignorance of the fact and effects of contagion, we had legalized a business in which men were authorized and licensed to vend disease-infected garments, we could not, later on—when we had become wiser—with justice, summarily deprive them of the livelihood grounded in their and our ignorance, without paying due consideration to the conditions and necessities which the change would involve for them.

The public's side of the question.

On the other hand, it can be urged that if liquor-dealers are entitled to compensation for loss of livelihood, why not all those who are necessarily affected by the downfall of the liquor trade? Why not the pawnbrokers, money-lenders, gamblers, police, physicians, lawyers, jailors, and hangmen?

Again, it is a truth that liquor-dealers as a body mostly deal in adulterated or even wholly spurious wares,*

* A point illustrated—if illustration is needed—by the way in which some evidently honest liquor-dealers reproach their adulterating brethren; possibly in some instances from really disinterested motives, but in most cases undoubtedly to check the spread of adulteration, because in the proportion of its spread it puts the burden of State duties on the few who do not adulterate. Liquor-dealers do not pay licence taxes for the use of water, therefore in the measure that they adulterate with water do they sell less liquor, and in the measure that they sell less liquor do they have less to pay to the State.

and therefore forfeit, by fraud, their claims to compensation. And still State and society, knowing this as they have known and do know it, and not having taken effective measures to prevent and punish adulteration, have been almost the same as silent partners in the transaction, and have thereby lost much of that moral force which would otherwise have entitled them to act more strictly with the liquor-dealers in case of prohibition.*

Personally, I lean in the direction of those who think publicans are entitled not exactly to compensation, but certainly to consideration.

A hint to licensed victuallers how to prepare themselves and their houses for the inevitable.

At the meeting of the Railway Temperance Union (Oct. 24, 1884), Mr. Samuel Morley said—"There ought to be some fair mode of compensation . . . I contend that the houses that are not closed ought to be made to pay for those that are closed."

A hint to licensed victuallers how to gradually make ready for prohibition, and at the same time increase their claims to consideration when such change should arrive, was thrown out by the Lord Mayor of York, at the annual dinner of the York Licensed Victuallers' Association, February 8, 1881. He said that as there was now a greater use of non-alcoholic drinks, it would be wise on the part of those who held licences to encourage their sale; that if the licensed victuallers could put themselves in harmony with the growing feeling in favour of sobriety and the use of non-alcoholic drinks, they would further their own interests in various ways, besides promoting public sobriety.

Some licensed victuallers are acting upon this advice, and furnish tea and coffee besides alcoholic drinks,† and

* *Alliance News*, February 19, 1881.

† "Now, if this Church of England Temperance Society would bring about a revolution among the publicans and licensed victuallers of this country, and if my colleagues and my friends (I am not ashamed to call them friends) would allow one of their own set to advise them to look to their own gains and to turn their houses—those committee-rooms that they used to have, and which will be no longer of use to them if this Bill passes in the House of Commons for prohibiting the use of committee—rooms in public-houses—instead of having those committee-rooms let once in every seven years; why not have wholesome refreshments where the best of everything can be got? and don't you think that the publicans and great brewers of

it seems fully probable that the liquor-dealers might gradually become almost wholly dealers in non-alcoholic drinks.

Scheme for reconciling the conflicting interests involved in prohibition with due regard to health, morality, and revenue.

In this direction also the State might greatly assist to promote the welfare of the people, by a scheme having due regard to all three of the chief considerations—the health and morality of the population, the necessities of the exchequer, and the future of the publican.

Many persons, who, convinced of the evil of drink and desiring to abstain, have yet lacked strength to at once break off their drinking habits, have tried and found successful the simple plan of daily slightly diluting their regular portion of whiskey, wine, or beer with water, until the rejection of a drink, thus gradually made insipid and uninviting, for pure water, becomes easy and at last natural.

Now, it is in the power of the State, the people consent-

this country having the means of providing good food and good tea and coffee at more moderate rates than those who have got to pay rent for their houses, do not you think their profits would be larger? Coffee taverns, I think, are admirable institutions with the exception that they do not sell coffee. (Hear, hear.) Anything more abominable or more filthy than what is supposed to be sold for 2*d*. a cup in coffee-palaces is not to be imagined, and at the very commencement of this splendid movement already we must bring in a Reform Bill." —Sir. P. C. Owen's speech, Exeter Hall, April 25, 1883, as reported in *Church of England Temperance Chronicle*, May 5, 1883.

At a meeting of the Exeter Conservative Association, held in Exeter on the 26th of February, 1884, Mr. J. P. Heath read an address on the Temperance Question, in which he said :—

"It must not be thought that licensed victuallers liked to see drunkards on their premises, for such men were the greatest nuisances they had to contend with, as they drove other customers away, and placed the landlord under a penalty for supplying them with liquor if they were in a state of intoxication, and he might forfeit his licence thereby. . . . Neither must it be thought that innkeepers derived greater advantages from selling alcoholic than non-alcoholic beverages, for he knew that more profit was made over the sale of a bottle of soda-water than a glass of grog, and over the sale of ginger beer than brewers' beer made from malt and hops. Brewers were finding out that, and were turning their attention in many instances to the manufacture of aerated waters, and through the spread of temperance principles by persuasion and conversion any licensed victualler would admit that his sale of temperance drinks had largely increased of late years, and that he was equally willing to provide accommodation for teetotalers who wished to use his premises for the transaction of their business as for non-abstainers."

ing, to try a similar experiment of drink-cure for the nation, by adopting an annually rising scale of licence duties, the price per glass of every kind of alcoholic drink being definitely and permanently fixed by law; the use of all ingredients in drink save alcohol and water being punished absolutely with imprisonment and loss of licence, whenever detected; and detection, by whomsoever made, to be always compensated by a fixed premium. Gradually as the licence duty increased, the liquor-dealer would seek his compensation in increased water dilution, the public would gradually become accustomed to weaker liquids, and would finally reach the point where the growing bodily and mental health, and the insipidity of the drinks would breed disgust. If, while this weaning process were going on, the liquor-dealers kept good coffee, tea, cocoa, chocolate, etc., their trade would gradually become established as that of licensed victuallers really, instead of licensed poisoners, and they could sell all the various non-alcoholic drinks, and thus, properly speaking, suffer no real loss. Meanwhile it would be the duty of the State to furnish pure sparkling water to the public, and to the publicans might be given the first chance of investment in securing this inestimable boon.

The paramount duty of the Government regarding exportation of liquor, and particularly in case of internal prohibition.

§ 84. When prohibition becomes law, there is one point which the temperance advocates should not lose sight of, namely, the exportation of liquor. The influence England has exercised in this respect on her colonies and those savage nations forced by her fleets to trade with her, has put an immense responsibility on her shoulders.*

* "I am sorry to say that since the cession to the British Government the Griquas have become a debased people, as much as before they were respected. The first thing that the Government did after the cession was to licence a liquor-shop at Griqua Town and at other places within the territory, and from that I trace the debasement of the tribe. In order to show you the change that has taken place for the worse, I may mention that prior to the cession I travelled for fourteen years through a great part of the country, and I never saw a drunken native. It was, in fact, against the laws of the country to introduce brandy or other spirituous liquors; but immediately after the cession and the licensing of drinking the state of things unfortunately changed. At the time to which I have referred the Griquas had a council and a court of justice, in which a regular record of the proceedings was kept; punishments were awarded for offences according to civilized ideas, and the country was remarkably free

Quoting from the *Gazette of India* (August 25, 1883), the *Alliance News* of December 8, 1883, says, "A compara-

from crime."—Hon. David Arnot, in *Manchester Courier*, March 13, 1879.

"Griqualand was annexed to the British Crown in 1871, and with it a large tract of Bechuana territory. Up to that time, the chiefs, Waterboer and Yanke (the former Griqua and the latter Bechuana), had prohibited, as far as possible, the sale of brandy in their respective territories. So soon as the country was annexed, canteens were licensed and opened all over the country, and the people, who had become more or less civilized and Christianized, began to go back again. They took to drinking, and began to lose all they possessed. This became so bad in Griqualand that, in 1877, the heads of the Griqua tribe drew up a petition in the Dutch language for presentation to Her Majesty the Queen, imploring her to stop the sale of drink, as it was bringing them to ruin."—Rev. A. J. Unkey, Bedford, August 14, to Wm. Hoyle. Appeared in *Alliance News*, September 27, 1879.

The *Friend* for April contains a letter from the *Nonconformist and Independent*, from a missionary of the London Missionary Society, concerning the Bechuanas, the people among whom Dr. Moffat so long laboured. The writer, A. J. Wookey, says:—"Magistrates were appointed to various districts to represent British authority amongst the natives at a distance from Kimberley, which was the seat of government and the great centre of European population. Gaols were built and police enrolled. At the same time canteens were licensed and opened in every available place for the sale of Cape brandy. Licensed hawkers, travelling in waggons, carried the same pernicious wares to all the native villages and hamlets, bringing disturbance and misery wherever they came. They would even cross the border, and, in defiance of the chiefs, carry on the sale in front of their very doors. And if a chief attempted to interfere, he would be threatened with the soldiers and police. One of the saddest sights to be seen there any day was that of natives riding backwards and forwards to these places on horseback or oxback, infuriated by drink, or to see men and women rolling about or lying hopelessly intoxicated under the shadow of the staff bearing aloft the British flag. This was the licensed process of civilization, under the patronage of the British Government—the brandy shop, the magistrate's court, and the gaol. The effect of this state of things, especially in these outlying districts, was appalling, and many of the natives became more debased and impoverished than ever they had been as heathen. Up to this time the native chiefs had prohibited the sale of these drinks in their country, well knowing the evils they brought. But the Government deliberately broke down the feeble barriers, and flooded the country with ruin. At Griqua Town the chief became the prey of the canteen-keepers and others, and turned out a besotted imbecile; and many of his people are very little better. In 1877 a number of the chief native inhabitants of Griqua Town drew up a petition addressed to Her

tive statement of the import revenue for the four months of the official year and of the twelve preceding years, published in the *Gazette of India* of the 25th of August, shows how far the imports of liquor are on the increase. The average of the four months (April to 31st July) for the ten years commencing from 1871–72 shows the following results, as compared with the revenue collected within three succeeding years :—

REVENUE—APRIL TO JULY.

		Average 10 years up to 1880.	1881.	1882.	1883.
Bengal ...	Rs.	4,16,000	4,66,000	4,93,000	4,84,000
Bombay...	„	2,30,000	3,56,000	3,64,000	3,66,000
Madras ...	„	1,57,000	1,76,000	1,79,000	1,76,000
Burmah ...	„	1,56,000	2,34,000	2,98,000	2,83,000

"What do these figures indicate? That in Bengal the average increase during the last three years, compared

Majesty Queen Victoria, imploring her to stay the ruin coming upon them, and stop the sale of drink. This petition reached the Colonial Office in November, 1877, but no notice was taken of it further than an acknowledgment to the forwarder. Had the wrongs of these poor people been inquired into at the time, it is probable that much misery and bloodshed might have been averted; but the cry of the helpless was disregarded."—*Alliance News*, April 17, 1880.

The *Temperance Record* for July 24, 1883, quotes Mr. Mackay, the Missionary of the Church Missionary Society from Lake Victoria Nyanza, as saying :—"Go where you will—Usequha, Usagara, Ugogo, Ungamwezi, Usukuma, Ukerewe, or Uganda—you will find every week, and, when grain is plentiful, every night, every man, woman, and child, even to the sucking infant, reeling with the effects of alcohol. On this account, chiefly, I became a teetotaler on leaving the coast, and have continued so ever since. I believe, also, that abstinence is the true secret of continued and unimpaired health in the tropics. Who wishes to introduce civilization into Africa? Let a *sine quâ non* of the enterprise be that its members be total abstainers. The West Coast is ruined with rum; it is killing the Kaffir in the South; and even at the East Coast, at Zanzibar, a vile liquor is distilled from the sugar canes at Kokotoni, that is retailed by every Hindu, Banyan, and Goa merchant in all the coast towns, to the destruction of the Suaheli race. Matama or pinicum is the general malt, but, failing that, Indian corn and a small millet called mewere are called into requisition, the strength being often increased by the addition of honey. On the shores of Nyanza, plantains are plentiful, and from them a wine is made which causes king and people to meet on the low level of intoxication."

with that of the ten years preceding, is 16 per cent., in Bombay 56 per cent., in Madras 13, and in Burmah 74! This increase is most significant. It is full 36 per cent. for the whole of British India, or at the rate of 12 per cent. per annum. Is such a progress in the revenue derived from spirits no cause for apprehension?"

In his speech in St. James's Hall (May 19, 1870) the Hindoo reformer, Baboo Keshub Chunder Sen, bitterly complained of the curse the English liquor traffic had been to India. "The whole atmosphere of India," said he, "seems to be rending with cries of thousands of poor helpless widows, who curse the British Government for having introduced that thing."

The *Temperance League Annual* on this point.

In its retrospect for 1882, the *Temperance League Annual* says, "The influence which the English nation exerts on the social customs of the colonies is very great, and in the matter of our drinking habits, incalculable harm has been done to many of our dependencies. Temperance reformers, recognizing this, are bound to do all in their power to prevent other communities from being saddled with an evil which they themselves are endeavouring to get rid of."

He then speaks of the audience granted to the National Temperance League by Cetewayo, of his cordial sympathy with its views, and his assurances that he had issued a proclamation against the introduction of spirits, which he would renew on his restoration. "Your spirits and intoxicants are death," said the king, "but it is no good shutting the door on my side, for I have no distilleries. I think the proper way would be for the Natal Government to assist me by placing restrictions upon the introduction of spirituous liquors in my country."*

Cetewayo's remonstrances with England.

* The *Alliance News* (October 4, 1879) quotes the following from the *Birmingham Daily Mail*:—"It has been discovered that Cetewayo has most advanced notions on the subject of the liquor traffic. He strictly prohibits the sale of Cape rum and other spirits in his country, and a curious story appears in a contemporary to-day, showing how this law was promulgated. A well-known trader, some time within the last four years, on a visit to Ulundi, surreptitiously introduced a quantity of liquor; and a native, a relapsed missionary convert, who was working for the king, got outrageously drunk thereon, and meeting the king, abused him to his face, calling him every bad name in the Zulu vocabulary. Instead of the king wreaking his vengeance

The liquor treaties with Siam and Madagascar in 1883.

How needful strict laws against liquor exportation would be if prohibitive measures were passed, is foreshadowed by the two notable liquor treaties concluded during the last session: the first one with Siam,* in April (1883), providing the importation of all kinds of spirits, beers, and wines by British subjects on the same conditions as those exacted of Siamese subjects; and the second with the government of Madagascar,† May 25. Both treaties leaving Siam and Madagascar bound literally hand and foot to the liquor-traders in England and the British subjects (a term specially and broadly defined) in both these countries. Commenting on the treaty with Siam, the *Daily News* says, "Much of the alcoholic liquor which

summarily upon the inebriated fool, he waited until the next day, when the man was sober, and then accepted his apology, at the same time expressing an opinion that they who supplied the drink were more to blame than he was. A law was, however, thereupon made by Cetewayo, wholly prohibiting the sale of spirits."

* The treaty with Siam has encouraged Holland, where the number of public-houses is limited by law, to follow the example of Great Britain, and force upon Siam a liquor treaty identical with the one concluded by Great Britain.

† Says the *Alliance News* (September 13, 1879), "The effects of rum on the native inhabitants of Madagascar are so pernicious, leading to commission of fearful crimes when under its influence, that a number of Consuls, missionaries, and other influential residents of Madagascar, have addressed a memorial to Queen Ranavalona, asking that its importation into her kingdom may be prohibited absolutely. The memorial and the reply sent by the Queen's Chief Minister are in *La Sentinelle de Maurice* of April 28, and from the reply we give the following translation, showing that the Queen is quite alive to the necessity for restricting the sale of the spirit among her subjects:—

"'The Queen has directed me to thank you for the desire which you express that she will not permit rum to enter her kingdom in such quantity as to allow the people to drink of it to excess. That God may bless your good idea is the earnest wish of the Queen. As for myself, I have attentively considered your statements, and they have afforded me much pleasure, and I take the liberty of thanking you, for I see by them how great is the interest which you take in the Malagasi nation. I have the honour to tell you, gentlemen, that already a law has been framed which prohibits the drinking of rum in the kingdom of Madagascar. In your letter you have shown the effects of rum-drinking in all its hideousness, and above all how it brutalizes men. You are right; and the Queen thanks you for your thoughtfulness, which has been inspired by your friendship, and for the great good of her people.'"

finds its way into countries in the position of Siam, is little better than poison, and ought to be so labelled."

As to Madagascar, it is but eight years since the press of England rung with praises of the Madagascan Queen for her liquor prohibition proclamation (1876).

England's responsibility for the moral and social condition of affairs in Madagascar is indicated in the following query and answer in the House of Commons debate, April 19, 1883:—

"Mr. Buxton asked the Under-Secretary for Foreign Affairs whether it was a fact that Tamatave, the principal port of Madagascar, was supplied to an enormous extent with inferior and poisonous rum from Mauritius, for which no other market could be found; whether it had been the cause of general and disgusting intoxication throughout the town and neighbourhood; whether the Hova Government formerly imposed a duty of thirty-three per cent. on the importation, and was only compelled by English and other consular pressure to reduce such duty to ten per cent.? . . .

"Lord E. Fitzmaurice: 'I regret to say that it is a fact that a large quantity of inferior rum is imported into Madagascar from Mauritius, and it has, no doubt, been the cause of the evils to which my honourable friend refers.'"

If drink should be prohibited in England, and the exportation at the same time not prevented, such treaties as these (passed in order to make up for those £5,000,000 less of revenue * so much rejoiced over by the Chancellor of the Exchequer, in the last budget?) are significant of how further internal deficits might be made up.

* The causes of this deficit were well pointed out by the Right Honourable Balfour, Lord Advocate of Scotland. "The weightiest utterance on the liquor traffic in Scotland came from the highest Scottish Parliamentary official, the Right Honourable Lord Advocate Balfour. We read with much pleasure all that his lordship so eloquently said with regard to the progress made by the temperance reformation, especially in Parliament, and we commend his lordship's testimony to those who would fain believe that the temperance reformers are unable to move on. Of the £5,000,000 which is lost to the revenue, a large share of credit is justly due to the prohibitionists. The Cameron Act of 1876, the Irish Sunday Closing Act of 1878, and the Steamboat Passengers Sunday Act of 1880 have been eminently helpful in that beneficial reduction."—*The Social Reformer*, February, 1884.

§ 85. Morewood, in his *Inebriating Liquors* (1838), quotes the following pregnant saying of Playfair:— National slavery under the liquor revenue.

"When a nation becomes the slave of its revenue, and sacrifices everything thereto, abuses that favour revenue are difficult to reform."

And liquor legislation in England to this day has proved the truth of this statement. For some three hundred years it has been the case that in the measure revenue has been needed, English Governments have almost invariably encouraged distillation and increased the facilities for the consumption of liquor.

As early as 1552 the first Licensing Act was passed:— Brief summary of the history of licensing.

"An acte for keepers of ale-houses to be bound in recognizances, and giving the justices power to close ale-houses in such town or towns as they shall think meet and convenient." In 1553 a law was passed providing that no town should be granted more than two wine licences, excepting 22; among these last, London was allowed 40, York 8, Bristol 6, and the others 4 and 3. But neither Liverpool, Manchester, Birmingham, Sheffield, nor Leeds were included among these exceptions. During James I.'s reign (1603) licence was granted by letters patent. In 1643 the Long Parliament laid a tax on beer and ale for the ensuing year, calling it by the new name excise, probably an anglicizing of the Belgian *accüsse*, signifying tribute.

In 1753 an Act was passed for the more easy conviction of persons selling ale and strong liquors without licence. In 1828 the liquor-dealers got permission to appeal to the quarter sessions from decisions by justices of peace. In 1830 the pernicious *Beer Act* was passed, to rival the public-house, it was claimed. In 1860 the *Refreshment Houses and Wine Licences Act* was passed, "to facilitate the sale and consumption of light foreign wines in confectioners' shops and eating-houses." February 10, 1860, Mr. Gladstone made a proposition for reducing the duty on brandy from fifteen shillings per gallon to eight shillings and twopence—the colonial duty; and although this effort failed, he succeeded in 1861 in passing the *Grocers' Licence Act*. The Grocers' Licence Act.

The harm that Act has done is incalculable. Already

in the *Evidence on Drunkenness* before the House of Commons, 1834, it was shown that Grocers' Licences did great harm.

The *Saturday Review* on the Grocers' Licence Act, in regard to its effect in the drawing-room.

The *Saturday Review* (January 21, 1871), in an article on *Drawing-room Alcoholization*, says in regard to the results from these licences—

"If the *Lancet* laments, as it has done, the over-prescription of stimulants which was 'too much in fashion a few years ago,' its acknowledgment of the perhaps irreparable evil is unseen by the general reader. The literature of temperance societies and police reports does not affect the divinities of our Olympus, who hardly guess the striking resemblance between their nectar and the gin of the 'masses.' . . . The rich escape the publicity of their practices which befals our poor, and consequently we cannot so well guess at the causes of that failure in duty at home, and in discretion abroad, which appears to be on the increase; but there is reason to believe that the frequent 'pick-me-up,' the mid-day and afternoon sherry or champagne, may have much to do with the pace at which young men and maidens, old men and children, Mayfair mothers and Belgravian beauties, are posting downhill. . . . Indulgence in any vice always entails others, but the distinct effect of alcohol is so to affect the nerves and brain that the material power to resist any temptation is lessened in proportion to the quantity taken. This is hardly, then, a safe stimulant for women, nor will it, even in small quantities, advantageously develop their peculiarities. . . . Supposing the lady of the house never exceeds the sherry she can carry with dignity and self-approval, and get decently through her daily round of deadly-lively occupation, she remains a proof that a woman with a taste for strong liquors has seldom any other taste. Her maid puts on her clothes, but she is careless of her appearance, and even liable to personal unkemptness. She is often unpunctual, fractious before her dram, and dull afterwards. She does not cultivate friends or acquaintances who could be any check to her practices. She likes her mankind to be much away from the house, and if they take no notice of the quantity of wine consumed in their establishment she will be affectionate, if rather stupid, to them. Of what is pure and noble in life she loses appreciation, while all

that is animal is intensified in her. If she has children, they will probably suffer from constitutional depression and weakness, and 'tone' will be plentifully supplied by port wine, and even brandy, from their infancy up. With the career of the boys we are not here concerned, but of the girls what may or may not be prophesied? If they have escaped positive disease by the time they are launched in the world, they will be, at all events, dependent for their 'go' in society on copious champagne and frequent sherry. Naturally they will join the increasing mob of fast girls, with all that is involved in that evil. We are sensible of a distinct moral relaxation among women, and of a new sort of unwomanly recklessness in the presence of men. We complain of a prevalent coarseness even among the virtuous, not only of manner, but of imagination and pursuits, and we are sometimes tempted to prefer the age of Nell Gwynne or Madame de Pompadour to the actual confusion of daredevil women and unabashed spinsters. It would seem that alcohol has something to do with this disorder, for the physical effects of it on women are proved by medical investigation to be precisely what would denaturalize them."

The *Practitioner* on the same

Commenting on this article Dr. Anstie, in a paper on *The Use and Abuse of Alcohol by Women*, in the *Practitioner* (March, 1871), says—

"The fact is, that all tipplers become more or less untruthful, but that female tipplers invariably become shameless and most skilful liars. And the favourite lie which they invent as an excuse for their habits is an apocryphal medical order 'to take plenty of support and stimulants.' We have personally detected the manufacture and skilful dissemination of this particular falsehood in several instances, and the practice is notorious to physicians who see much of nervous diseases."

The *Spectator* on women and alcohol.

And the *Spectator* (February 18, 1871) says, in an article on *Women and Alcohol*—

"It is ruin for them, as it is for men, and in both cases for the same reason, because any narcotizing poison, once in possession of the system, paralyzes the will; but it is ruin far quicker, and, owing to the organization of society, more complete. We are not inclined to believe what the *Saturday* says and the *Practitioner* hints, that liquor impairs

chastity in women more than in men; but women depend upon the will, which the influence of the poison cripples, and suffer more visibly when its paralysis has thrown them back defenceless upon impulse, whether the impulse be kleptomania or concession to solicitations."

Protests made by the press against the Grocers' Licence Act. The *Alliance News*.

Mrs. Dawson Burns, writing in the *Alliance News*, January 4, 1879, says—

"The motive prompting these Acts was good; it was avowedly to draw away the public-house and beershop votaries. Statistics signally show a failure in that object; going still further, they unfortunately prove that, rather than lessening the one evil, these Acts open up channels for a different class of women obtaining drink who would rarely, on account of their social status, have ventured into either a public-house or beershop.

"These licences, though not restricted to, are chiefly granted to grocers, confectioners, the keepers of refreshment bars, and restaurants; and through such facilities the mischief is extended to a section of our female population who largely avail themselves of these means—women who, by reason of their educational attainments and position, exercise a wider influence than others.

"These Acts have led to two results: First, the well-known habit of ladies, even young ladies, in their ordinary walks and shopping, entering these more respectable refreshment places, and partaking of stimulants between the hours of meals. Second, the inducement they have given to secret drinking by ladies in their own houses."

The same article quotes the following from the *Lancet's* protest against the continuance of this Act, which protest was signed by 920 physicians, surgeons, and medical practitioners:—

"We, the undersigned, being members of the medical profession, beg to record our strong persuasion that the facilities for obtaining spirits, wines, stout, and ale, in bottles, which are provided by the 'Grocers' Licence,' have a most injurious tendency. We believe that women, servants, and children of respectable households, who could not, or would not, procure intoxicating drinks at public-houses, are encouraged to purchase and use these liquors by the opportunity offered when visiting the grocers' shops for other purposes. Female domestic servants are often

enabled to obtain bottles of spirits, wine, and beer at a small cost on credit, or as 'commission' on the household bills. This trade is wholly removed from police supervision, and it is a direct incentive to secret drinking, a practice more injurious to the health and moral and social prosperity of the community than the ordinary trade in intoxicating liquors as carried on by the licensed victuallers. We protest against the continuance of this licence on grounds moral and medical; and we urge its consideration by a 'Select Committee of the House of Peers' now investigating the subject of intemperance, and the measures expedient to reduce the evils of excess. The abolition of this special licence we hold to be the first, and perhaps the most practical, step within the province of the Legislature."

In the Lords Committee on Intemperance, 1879, abundant proofs were given that the grocers' licences were a most prolific cause of increased drunkenness among women.

The *Lancet*.

Early in the present year (1883) the *Lancet* says—

"When, some years ago, we made an energetic but, as it unhappily proved, a vain endeavour to influence public opinion in favour of the total abolition of grocers' licences to sell spirits and wines in bottles, we pointed out how women obtained intoxicating beverages under cover of 'groceries,' and how grocers not uncommonly gave Christmas presents to customers and their servants in the shape of bottles of brandy, whisky, or wine. At a recent inquest on the body of an old woman, who was found dead in her bed after a drinking bout, it was stated that a bottle of whisky, which had been presented by the grocer, was found under the bed-clothes nearly empty, but still clutched by the poor victim of this false kindness, although the hand with which she seemed to grasp it was dead. This is only an incident, but it will serve to show how this most mischievous licence tells against public and social prosperity. . . . Probably, hereafter, when much dire and irreparable mischief has been wrought, it will be seen that this State facility for the secret pursuit of vice, 'the grocers' licence,' ought to be abolished."

And a little later, the *Lancet* adds—

"The demoralization of women by these most senseless and mischievous licences is an evil we have deplored, and

which would long since have found a sufficient remedy but that the great landlords of London and elsewhere would find their personal interests affected by the passing of any law putting an end to the social plague of the grocers' licence. Unfortunately, these landlords occupy positions of influence in the Legislature, and therefore the evil cannot be wholly remedied."

The attitude of the Church of England Temperance Society.

The attitude of the Church of England Temperance Society on this most important matter has been noble. Its Women's Union addressed letters inquiring into the actual facts as to the evils wrought by these licences, to "clergymen, medical men, coroners, and others." The responses to these inquiries, published in pamphlet form early in 1883, fully substantiate by various and conclusive evidence the fact that the grocers' licences have carried, and are carrying, the evil of drink among women to an alarming extent, and particularly increasing it among a class of women who would not think of resorting to the public-house.

Canon Leigh's advice to the Women's Union to boycott liquor-selling grocers.

In the *Church of England Temperance Chronicle* (May 12, 1883) I find the following quoted from the speech of Canon Leigh, delivered in Exeter Hall (April 26) :—

"I would wish to draw attention, as it has been drawn over and over again, to the dreadful system of grocers' licences, which I am quite certain is contributing more than anything else to the increase of drinking amongst women. I should strongly urge upon all the members of the Women's Union never to deal with grocers who trade in spirituous liquors, and to advise their friends not to do so either."

The *Temperance Record* on the increasing intemperance among women as being largely due to the Grocers' Licence Act.

Of the steadily increasing intemperance among women, the *Temperance Record* (November 15, 1883) says—

"It is one of the most discouraging features of our time. Recent judicial statistics clearly show not only that there is a greater proportionate increase of drunkenness amongst women, but that in their case the habit is more inveterate than in men. In the Judicial Statistics for 1882, recently published, it is stated that the offenders who have been convicted for any crime above ten times are 4391 males, and 8946 females, or 8·9 and 29·3 per cent. respectively on the total commitments. In other words, more than a quarter of all women in prison, whose offence

is not the first, have been in over ten times. A comparison of five years will show how women have been steadily getting worse in this respect:—1878, 5673 females; 1879, 5800 females; 1880, 6773 females; 1881, 7946 females; 1882, 8946 females. This preponderance of women, according to the competent testimony of the Rev. J. W. Horsley, is almost entirely due to the special character, and the increase, of female intemperance. . . . One cause against which the *Lancet* has nobly protested is what is familiarly known as the Grocers' Licences Act. The repeal of that Act, we feel persuaded, would put a decided check upon the increase of female intemperance, and should be urgently pressed upon the Legislature by all classes of social reformers."

Mr. George R. Sims on the social effects of the grocers' licences.

The following picture is taken from the chapter on "The Secret Sin," in the *Social Kaleidoscope* by George R. Sims. Drawn by a pen to which the world is deeply indebted for a circumstantial knowledge of the drink-evil in its connection with poverty, and for striking practical suggestions as to remedies and reforms, its details are vouched for from personal observations.

"The pen almost hesitates brutally to describe a high-bred, lovely woman by the word 'drunkard.' It seems as if such an appellation could give rise in the mind of the reader only to vicious, coarse, degraded womanhood. It is, alas! a revelation of these later days of modern civilization that intemperance is almost as prevalent among the higher ranks of female society as it is among the very lowest. There is, however, this difference. Sally Giles, of Lant Street, Borough, gets drunk in the public-house and rolls about the streets; Lady Clara Sangazur drinks in her boudoir, and dozes off her 'bad headache' in the quietude of her bedchamber. We know through the police reports, and we see with our eyes, the havoc which drink is making among the lower orders; its ravages in the upper classes of society are known only to the doctor and the friends of the family, save when every now and then an aristocratic divorce case reveals the fact that the lady was 'intemperate.' Seeing it not, good folks are inclined to doubt its existence. Alas! it is the great social evil of the day; and until it is thoroughly exposed, the means taken to stamp it out must necessarily be insufficient. Look at

Mabel North, this fair young creature, the picture of health and pleasure. Who among the admiring crowd about would suspect that she is a dram-drinker, a woman who gets helplessly drunk whenever she has the chance, and who will pour ardent spirits down her throat like water? No one. But I, knowing the history of her case, deem it my duty to drag her before the world in her real character and lay bare the canker-worm in this lovely flower. I will write no word of her that is not true. I have seen her within the last twelve hours, and I am yet trembling at what I saw. But, lest I should be accused of endeavouring to work up a sensational story out of an every-day catastrophe, let me give you the details of her case in the ordinary matter-of-fact way.

"Mr. North looks anxiously at his wife in the refreshment-room this evening, and sighs, because she has for three days kept her promise to him that she would not touch drink of any sort. Yielding to her earnest solicitations, he has brought her to the ball, though he would rather for the present she had avoided the excitement. And now, flushed with the dancing and pleased with the admiration her beauty has aroused, she has resented his anxious and meaning glance, and has accepted iced champagne from the hand of her partner. Later on she returns again for sherry. At supper she has more champagne. After supper she goes again into the refreshment-room and has an ice. She eats half the ice, and feels faint. In the ladies' dressing-room she knows she will find what she requires, and thither she repairs. 'I feel faint,' she says to the maid. The maid smiles, and produces the brandy-bottle. She is used to her business, and she knows what the lady of to-day takes for faintness. You who would ape the manners and customs of modern fashion, mind that you put a plentiful supply of brandy and gin in the ladies' dressing-rooms—they look for it. You might as well have no ices in the refreshment-room as no spirits in this apartment. Presently North peremptorily bids his wife put on her cloak and come; he sees the warning look in her eyes, and the nervous dread that some one else will notice it comes upon him at once. She obeys, and they drive home. In the carriage he remonstrates with her. She is sleepy and sullen, and makes no reply. Only she

feels the sense of thirst growing upon her, and when she gets home she will drag another bottle of brandy from its hiding-place in her maid's room and empty it.

* * * * * *

"The next day Mabel North's husband is the picture of despair. Incensed at her open defiance of her plighted word, he has taken her somewhat harshly to task, and dared her to drink any more spirits. He has *commanded* her to be temperate, as if that were any use. She defies him openly. The spirit has done its work, and she laughs foolishly, and tells him he may lock the cellar and do what he likes, but she will get it still. He fancies he can be clever enough to keep drink from her if he tries. He locks up all the wine and spirits. She sends her servants to the public-house. He finds it out, and threatens them with dismissal if they repeat the offence. She goes out and gets it herself, brings it in from the grocer's in the carriage, and carries it upstairs under her cloak. For six weeks she is in a semi-maudlin state of intoxication, and his every effort to stop the supply is defeated. In despair he takes away her money, and refuses to give her any. He will pay all bills himself. The first result of this arrangement is a discovery that there are five times as many pounds of tea charged in the grocer's bill as could possibly have been consumed. He makes inquiries, and finds that tea in a grocer's bill means spirits; that it is supplied to the lady of the house in this manner, and is called tea to deceive those it may be necessary to deceive. Challenged, the grocer defends himself. He states that it is the custom of the trade to supply ladies with spirits and charge them as tea and sugar and sauce. It is the large secret consumption of spirits by well-to-do women that renders the grocers' licences so valuable. Ladies cannot buy at the public-house; to draw heavily on the cellar would alarm the husband; but an unlimited quantity can be sent into the house quietly by the grocer, and charged as tea or some other article of daily household consumption. I have not the slightest doubt that the growth of secret drinking among ladies is largely contributed to by the system of grocers' licences. . . . To watch the woman he loves becoming gradually dead to fine feeling, dead to social etiquette, and at last dead even to decency, is the lot of

more men at the present moment than the world dreams of. The secret is hideous, and is sacredly kept as long as possible. . . .

"Mr. North made another despairing effort to rescue his wife. He set a watch upon her, and kept her entirely without money. At first, unable to obtain alcohol, she drank scent; but the cunning bred of dipsomania suggested to her a means of obtaining both money and brandy. She opened his correspondence, abstracted all sums it chanced to enclose, and hid or destroyed all letters which asked him for the return of sums she had borrowed. On discovering this, her husband made inquiry in the neighbourhood, and found that she had borrowed money wherever she had upon any pretext found it possible to do so, and had even borrowed valuable articles from different shops and pawned them. He was forced to check these proceedings by advertisement, in order to escape ruin. This seemed to break the last tie that restrained her. She borrowed small sums of the servants, pawned her jewellery, stole from her husband's pockets, resorted to every trick she could think of to get money, and every farthing went down her throat.

"Her health now began to give way, and she grew violent. Once, when he seized her by the arm, she rushed at her husband and tore his face with her nails; she cursed the servants if they interfered with her; and the doctor who attended her roundly told her at last that if she did not alter, he would certify that she was mad and put her under restraint. For a time this threat had an effect, but the disease had advanced to a stage when it is rarely cured. In a week she had a relapse, and, managing by some means to get half a dozen of brandy into the house, she drank the lot in four days, and was mad drunk. Like a beautiful fiend, she tore about the room cursing and raving, and shrieking that she was pursued by devils. The servants, terrified by a sudden access of violence, called her husband, and he entered the room and ran towards her with a cry of horror. He had never seen her like this before—a foul-mouthed madwoman, tearing at the air, and threatening murder to any one who came near her. As he ran towards her to secure her she flung up her arms. . . .

"She met her death leaping from an open window to avoid her husband; and the coroner's verdict, translated into plain English, says that her death was due to a drunken frenzy. I have glossed over this ghastly picture, merely suggesting the outlines of it. And yet, toned down as it is, there will be hundreds who will question its truth and say it is overdrawn. To such I would say, Who are the men most likely to know? The medical profession. Ask, then, any medical man whose practice lies among women of the better, middle, and upper classes, and he will tell you there is no doctor with any connection at all who has not half a dozen lady secret drinkers on his books. This secret drinking is a social cancer, and it is eating away all that is noblest and best in womanly nature. We have asylums for idiots and lunatics; when are we to have an asylum for dipsomaniacs?"

The most pressing reason for the repeal of the grocers' licences.

When we remember that insanity is more prevalent and less curable proportionately among drinking women than among drinking men; that the children of the drinking mother are more certainly victims of alcoholic heredity in all its either fatal or most baneful and degrading forms, than are those of the drinking father;—when we remember these things, then indeed does the necessity for the repeal of such an Act as the Grocers' Licences come home with overwhelming force.

Various lesser legislative measures.

§ 86. Besides these large measures, there are many minor legislative steps of more or less importance, both of preventive and restrictive character, which might be taken.

Restriction of the power of renewing licences.

For example, it should no longer be left optional with licensing magistrates to renew licences to publicans who are disreputable and strain or transgress the law.

Low windows compulsory for public-houses.

It ought to be compulsory to have large and low windows to public-houses (as is the case on the continent), so that passers could see what was going on within. If it is a respectable thing to frequent public-houses, why should the scenes within be concealed? If it is disreputable, why should it have the encouragement of being specially screened, and the police be at the same time hindered in their duty of watching such places?

Prohibition of the employment of

Publicans ought to be forbidden to employ women as bar-tenders.* Among incitements to drink, especially in

* The *Church of England Temperance Chronicle* (February 17,

women as bar-tenders.

England, Denmark, and Sweden, are the barmaids. Some of the prettiest girls in England are to be found behind the liquor bars, a fact illustrated by the Annual Barmaid Shows. The Danish town of Veile has recognized the presence of these girl bar-tenders, as a cause of intemperance, by imposing restrictions on public-house keepers, who are forbidden by the town authorities to employ servant-maids under the age of forty years! If such a law as this could be passed and enforced in London, and other large centres, what incalculable good would be the result as regards both drink and the social evil! It is well known that the women thus employed are demoralized and degraded in body and mind. They live generally but a few years, and the majority of them, whether death comes early or late, die as abandoned women. Not a few students of the social evil regard the public-house as the chief recruiting office of the brothel.

Public conveyances should neither bear the names of, nor have their stations at, public-houses.

The starting and stopping stations of public omnibuses should not be at public-houses, nor should these vehicles be labelled from these resorts.

Nor should inquests ever be held at public-houses, whose traffic is so prolific a source of them. And publicans should not be allowed to sell drink to known habitual drunkards, nor to children.

Canon Ellison on juvenile intemperance in Liverpool and Manchester.

In a paper read some years ago in Liverpool, before the National Association for Promoting Amendment in the Laws relating to the Liquor Traffic, Canon Ellison quoted the following from a country journal:—"On Monday morning the magistrates of Liverpool had before them

1883) cites as follows from the *Irish Temperance League Journal*:—"The disestablishment and disendowment of 'Barmaids' is a coming question. In many quarters there are signs of the steady advancement of a determination to do away with this blot upon English civilization. Why fair girls should be stationed behind bars for ten, twelve, and fourteen hours a day to bear the brunt of the meaningless compliments of the brainless boobies who pay so many twopences for the privilege, is more than passing strange. We put girls into taverns to sell drink to men, and men into shops to sell ribbons to girls!"

"'I have heard publicans say they wished they had never entered the business, and would be glad to get out of it.' It was very difficult for barmen and barmaids to get out of it, as no one would employ them after they had been engaged in a public-house."—*The Christian*, March 6, 1883.

twenty boys and girls under the age of seventeen, all of whom had been found beastly drunk in the public streets on Sunday, and incapable of taking care of themselves. . . . Again, on a given Sunday 22,000 children were counted in the public-houses and beershops of Manchester; and the clergyman, entering one of the beershops at one in the morning, found it full of boys and girls drinking."

Instances of juvenile intemperance cited by the *Daily News*, December, 1883.

During late years juvenile intemperance is on the increase. As recently as last Christmas the papers reported many pathetic examples. In the *Daily News* (December 28, 1883) appeared the following touching letter:—

"GIRLS AND DOGS.

"SIR,—Your column of 'General Home News' of this morning has two items, which, as they are next to each other in grim satire, ought not to be passed over without public attention being called to them. The first is the horrible story from Birmingham of two little girls, nine and twelve years old respectively, together with a cousin ten years old, purchasing whisky, getting drunk, and almost killing themselves. The next is the story of three dogs at Castle Hedingham falling sick upon the road to the meet for fox-hunting, presumably having been poisoned. In this case 'great indignation was expressed by the public,' 'and the hunting for the day was postponed.' A reward of £50 has been offered for information which may bring the guilt home to the perpetrators. And what about the persons who supplied the drink to the three little girls? Apparently no public indignation is expressed at the Birmingham outrage. What, after all, are three children more or less in our overcrowded towns? The bay of the foxhound is pleasant and cheery, and we cannot afford to lose that music on the hillside. The bitter cry of the outcast is not sweet, and the sooner we quench it in the water of death the better. So, of course, £50 for the discovery of the miscreant who poisoned the dogs; for the licensed trader who gave the children whisky, compensation when the time comes to shut up his dram-shop. We have received from Birmingham much political light and leading. We shall wait anxiously to hear her voice, in answer to the piteous wail of her three children

poisoned upon the nativity of the Bethlehem infant.—Yours, etc.

"LLEWELLYN D. BEVAN.

"*Highbury, N., December* 27."

By the *Globe*.

A few days later the *Globe*, commenting on this wicked condition of things, said—

"It is most painful to see, from the provincial police-court records of Christmastide crime, that juvenile intemperance is increasing. Instances are reported all over the kingdom, and in some the tipplers were girls of tender years. Thus, at Birmingham, two little damsels, the one nine and the other twelve, opened their money-boxes one night, and invested the contents, 2*s*., in whisky. Being joined by a ten-year-old cousin, the three sat down, and then and there consumed every drop of the spirit. They were afterwards found in a helpless state of intoxication, and the youngest still remains seriously ill. But a boys' drinking-bout at Warrington actually terminated in the death of one lad, aged twelve, from alcoholic poisoning. He, and three other youngsters, bought a pint of whisky and drank it out of an egg-cup, apparently in an undiluted state. We could multiply these shocking instances almost indefinitely, and the question therefore arises as to whether some more stringent restrictions should not be placed on the sale of stimulants to children. In the Warrington case, the publican declared that he would not have sold the whisky to the lads if he had thought they intended to drink it themselves. The coroner, nevertheless, censured him for his carelessness; and never was reprimand more richly deserved. When children ask to be served with spirits, it rests with them to show that they are merely employed as messengers, and any publican who does not exact full evidence on that head would not be a bit too heavily punished were his licence endorsed."

Imprisonment a proper penalty for the crime of selling or giving drink to children.

It ought to be practicable to pass a law preventing the possibility of such degradation as this. No physician of any standing denies that drink is a poison to the young, and no father, mother, or guardian worthy of the name will allow minors under their charge to drink. It ought, indeed, to be a penal offence for any full-grown person to be guilty of forcing or coaxing little ones to drink.

"There can be no question," says the *Lancet* (May, 1883), "but that some change is urgently necessary in relation to the facilities publicly offered for juvenile drinking, and, consequently, juvenile inebriety. Even ordinarily observant persons must have noticed the increasing frequency of that most melancholy and humiliating of street spectacles—a drunken child. A drunken woman is a deplorable presentment of human nature, but a drunken girl or boy is a more pitiful creature still. We have recently seen girls of apparently thirteen or fourteen years of age intoxicated with alarming frequency. Surely a short Act should be passed to render the supply of spirits, wine, or beer 'to be drunk on the premises,' by a boy or girl under sixteen years of age, a misdemeanour. All would unite in expediting such a measure. At present, as it appears to us, even respectable publicans have no objection to supply drink to mere children, although they are conspicuously zealous in thrusting these poor creatures into the street as soon as the first indication of drunkenness is apparent."

The *Lancet's* opinion on this point.

Unless the British Government soon attends to these evils, it seems likely that Russia will take precedence in reformatory legislation upon the drink question. According to a letter from Odessa to Sir Wilfrid Lawson, dated March 21, 1884, and published in the *Alliance News* March 29, the new Russian project for regulating the sale of alcoholic liquors is thus quoted:

"Clause II. enacts that any publican supplying drink to a person already intoxicated, or to young persons, is liable to a fine of 850 roubles (about £85), and to the deprivation of his licence or patent for three years, during which period he will not be allowed to occupy himself in any capacity whatever connected with the sale of liquors —not even as a waiter." *

* The next two clauses are given as follows :—

"Clause III. enacts that any publican supplying a person with such a quantity of drink as to make him irresponsible for his actions, and if such person, after leaving the premises, be robbed or injured by accident, the publican in addition to the fine imposed under clause II., shall make good any loss by robbery in the one case, or pay all medical expenses in the other.

"Clause IV. declares that where a person through excessive drinking dies in a public drinking-house, or if an intoxicated person

Early habits and home example largely responsible for the prevalence of this vice among adults.

There is no doubt that the amount of drunkenness we see among all classes of people is in a very great degree the outcome of habits formed in earliest youth. The use of alcohol is associated with home scenes around the parents' table and with social pleasures; it is carried on by the very passivity and plasticity of man's moral development, up through the whole period of physical construction and ripening, until it is fixed in and part of his maturity.

§ 87. Another indirect prohibitory measure that may become practicable applies to the prevention, by law, of propagation of the race by habitual drunkards. Why should such a suggestion as this be adjudged out of the pale of consideration? Laws are made and executed, by which life itself and all that is meant by individuality are under given circumstances deemed forfeit. Why should there be no laws, adequately conceived and effected, which might practically abrogate the death-penalty by guarding the doors of life? In an address to the Elswick Works Institute, August 8, 1883, Sir William Armstrong made the following statement:—"The rapid growth of population is adverse to moral development, and, by increasing competition, for instance, tends to increase poverty. A crisis must apparently come when further multiplication must be controlled by legislation, and the violation of liberty may be involved."

Sir William Armstrong on prohibition of the propagation of poverty and vice.

What Sir William Armstrong thus impressively says of the propagation of poverty is certainly applicable to the propagation of habitual drunkards, even without dwelling on the point that poverty and drunkenness produce each other.

Dr. Norman Kerr and the Dalrymple Home.

§ 88. The brave efforts of Dr. Norman Kerr for the realization and extension of the Dalrymple Home for the cure of habitual drunkards, deserve encouragement and support. But the authority of the management should also be enlarged. The chief support of this or any similar institution ought to devolve upon the State. Any one who had a respectable medical certificate that he was an eligible applicant, should be admitted, and the satisfactory evidence

lose his life in any drunken brawl on the premises or after leaving (cases, unhappily, not uncommon in Russia), the publican shall suffer two years' imprisonment and make a suitable provision for the wife and family or dependent relatives of the deceased."

of a person's being an habitual drunkard should make his removal to an asylum for habitual drunkards as compulsory as would be the removal of a proved lunatic to an asylum for the insane, and State supervision ought to be as strict as over our prisons and insane asylums—absolute cure being the condition on which an inmate would be allowed to re-enter the world.

Those who were present at the inauguration of the Dalrymple Home (October 29, 1883), and heard the earnest addresses by Sir Charles Tupper, ex-premier of Nova Scotia, who instanced the model management and grand success of such institutions in America;* of Sir Spencer Wells,

* These details are from the *Temperance Record* (November 1, 1883): "The Hon. Conrad Dillon, who has recently returned from a rapid trip through the United States, has favoured us with a few notes of visits paid by him to four institutions for the reclamation and reformation of the victims of strong drink.

"At San Francisco, California, the Inebriates' Home is under the management of a body of trustees who are recognized by the State, and have power to receive and detain persons for certain periods. The home is situated in a pleasant part of the city, and has accommodation for about sixty or seventy inmates, about two-thirds of whom are males. Many of the patients go voluntarily, but others are committed under a judge's order for a term of twenty days. Dr. R. H. McDonald, the president of the Pacific Bank, an active temperance reformer and philanthropist, is the chairman of the trustees, who are assisted by Dr. Jewell, the resident physician. The patients are detained for a few days in the hospital, after which they have access to the reading-rooms and other more cheerful parts of the building. The women's department is of course entirely separated, though under the same roof. No report is published of the home, and every effort is made to avoid publicity, which might deter sufferers from taking advantage of it.

"The Washingtonian Home of Chicago is somewhat larger. Here the average number of inmates (all male) is about eighty, the total number of admissions last year having been six hundred and seventy, of whom one hundred and two were police-court cases. The committee of directors have power to admit and detain prisoners committed to the bridewell for "intemperance, drunkenness, or any misdemeanour caused thereby," for the term of their sentence. The patients are required to contribute according to their means, though many are admitted free. On the whole nearly sixty per cent. of the expense is contributed by the inmates. The special feature of this home is that an attempt is made not merely to recover, but to educate the patients. During the first fortnight, as a rule, they remain in the home, and attend a series of lectures on physiology, especially relating to the effects of narcotics and stimulants on the various organs, as

president Royal College of Surgeons; Dr. Hare, president of the Metropolitan Branch of the British Medical Association, and other well-known workers in the temperance cause, cannot help feeling that it is the great duty of Englishmen to urge adequate legislation on this subject.

well as the effect of alcohol on the moral affections and passions. Professor Wilkins, the superintendent, whose heart and soul is in the work, soon makes an impression on all who have the slightest desire to reform, and, by his kindly sympathy and advice, revives hope in the breast of many a poor victim. If sufficient progress is made at the end of a fortnight, the patient goes out during the day to his employment, returning for meals, and thus gradually slides back to his place in the outer world. The experience meeting on Sunday evening is a serious affair, and though the histories related are often sad, many successful cases starting from declarations made there in years gone by, testify to the value of the work. Friends of the inmates and former inmates are welcome at the meetings.

"The Martha Washington Home, which is situated about six miles out of the town, is conducted by the same board, and though only opened recently, gives promise of that reward which always attends the untiring efforts of thoroughly earnest workers, guided alone by the highest religious motives. The money raised by licences in Chicago and Cooks County, amounting to about £1,200 a year, is entirely devoted to these two institutions.

"The New York Christian Home for Intemperate Men, which was till lately presided over by the Hon. W. E. Dodge, has recently moved into a fine new building at the corner of the Madison Avenue, and 86th Street. Here the committee have power to receive and detain inebriate men who enter voluntarily for a period not exceeding sixty days, and every effort is made during that time for their "physical, social, mental, and spiritual" improvement. The institution claims that of the nine hundred men who have been received since 1877, a majority give every evidence of living consistent lives. This result is attributed to the prominent position given to religious instruction and exhortation, and, indeed, unless patients express a desire to reform they are not allowed to remain.

"The value of these homes cannot be accurately estimated, for many who have benefited most by them follow the example of the nine lepers. That the work is of great practical value cannot be doubted, though many will avail themselves of the relief and then return straight to their old habits. The stay in all is too limited for much good to be expected in old cases, but the easy access and prospect of returning quickly to the world no doubt induces many to avail themselves of the treatment at an earlier stage than they would if the seclusion were longer. The facility for a recommencement of work which is impossible in a country home, is an important feature, as well as the opportunities offered for joining temperance societies before throwing off the restraint of the home."

In his report (March, 1884, about four months after its inauguration) on the working of the Dalrymple Home, made to the Medical Temperance Association, Dr. Kerr said—

"Without an exception, all whose terms have as yet expired have applied to be allowed to remain longer—as long, in fact, as financial or business considerations will admit of.

"With all this success, there is one regret, the necessity of refusing many applications for admission. If the sum of £2,500 were forthcoming, accommodation for twelve more patients could be added, and we rely on the prompt and liberal support of the Christian and philanthropic public. Were the committee supplied with adequate funds, they would gladly establish a Home for Females, and a third Home for Habitual Drunkards of very limited means. To free the existing Dalrymple Home from debt £2,000 is still needed."

Dr. Thomas Hawksley on the cure of habitual drunkards.

Dr. Thomas Hawksley is quoted in *Church of England Temperance Chronicle* (October 6), as saying :—"It is useless to tell these fallen and unhappy ones of the virtues of temperance; their consciences are dead, and an impervious and insatiable demon has possession of them. You might as well attempt to reason with a hopeless lunatic. Until the laws of the country treat this form of madness like other lunacy, and deal with it by a sufficiently long sustained coercion, so long, it is to be hoped, there will be found a self-denying and heroic band of men and women who, by a vow of total abstinence faithfully carried out, show the right way to their weaker brethren, and demonstrate how perfectly health and happiness may be sustained without the smallest aid from agencies which to so great an extent are proved to be the *facilis descensus* to all the other sins and crimes of our fallen moral nature."

The Lambeth Board of Guardians on the necessity of reform in the Habitual Drunkard's Act.

The *Church of England Temperance Chronicle*, November 15, 1883, says :—"At a meeting of the Lambeth Board of Guardians on Wednesday, it was moved—'That this board, being deeply impressed with the necessity of provision being made for the more stringent dealing with habitual drunkards, do memorialize the Local Government Board to take such steps as will lead to the law being so amended as to give power to local authorities or boards of guardians

to establish and maintain inebriate retreats, either in connection with existing workhouses or asylums or in separate establishments, as may be thought most desirable; and, further, that power be given to magistrates to commit habitual drunkards to such retreats with or without their consent, provision being made for the recovery of the cost of their maintenance when it is ascertained that persons restrained have means for their own support, or that there are relatives or guardians who under the existing law are liable and able, wholly or partially, to maintain them.'—The motion was carried, there being only one dissentient."

The need of international relations in view of thorough drink legislation.

§ 89. One powerful and comprehensive initiatory measure for optional and prohibitory legislation, for which the times seem ripe, is that of the establishment of international relations on the drink question. There can be no doubt that for England to inaugurate a system of drastic liquor legislation without such an understanding with other countries would seriously affect international commercial relations; *i.e.*, if those countries in which such legislation would most interfere with the existing order of things, had not first been taken into England's confidence and invited to co-operate, and had their just demands considered and, so far as possible, satisfied.

But having faithfully made these efforts, England ought then to carry her scheme into effect. And there should be no question of compensation for direct losses to other countries, and on exactly the same grounds and for the same reasons that no compensation—except such as lies in special opportunities in proper fields of commerce—ought to be made to dispossessed publicans. For if publicans within the country are compensated, then, logically and upon the same scale, ought compensation to be extended to foreign traders.

The need of international agreement for the general suppression of liquor traffic on the seas.

Indeed, there are certain measures which only an international agreement would make possible, such, for instance, as the right to suppress the liquor traffic at sea. In the International Conference at the Hague in 1881, the fearful consequences in shipwrecks and loss of life due to this cause were pointed out, and a resolution passed to try and induce the respective governments to put an end to that form of the traffic; and it was recently stated by a correspondent of the Liverpool *Journal of Commerce* that

the British Government are taking steps to put an end to this traffic on the North Sea, and to that end would seek to arrive at an understanding with the other countries which are parties to the North Sea Fisheries Convention.

International exchange of information as to the various legislative measures taken, the commissioning of official representatives to international conferences on the drink question, and other steps of a cognate nature, would all be means for promoting the good work of bringing the nations into a closer bond of common fellowship, and, at the same time, tend to bring about a most healthful spirit of international emulation for good legislation.

The need for the establishment of a permanent national commission of inquiry into the whole question of alcohol and man.

§ 90. Alcohol is so potent and subtle a destroyer of the best qualities in man and the race; so much more formidable and complex in its effects than is any other foe to man's physical, mental, and moral health—to his happiness and usefulness on earth—that governments ought to insist upon the establishment of permanent national commissions, in every way fitted and provided with the necessary means for investigating the whole question of alcohol and man.

It is a far greater evil than that of poverty, and, in fact, as was pointed out in chapter x., poverty would hardly prove a considerable problem to a sober nation, and even if it were, a sober nation would be amply adequate to cope with it. If the Royal Commission * for Housing the Poor will study the cause, the all-promoting cause, of poverty—drink—and probe and expose this source of evil in a thorough conscientious manner, then will its work be, and deserve to be, blessed indeed, and its members will reap for themselves the rich harvest of the people's confidence and gratitude. But this should only precede, not take the place of, the establishment of a permanent official commission of inquiry into the whole drink question, which should annually issue a full report of the results of its investigation, the report to be sold at cost price all over the land. The commission established in Switzerland to this end might furnish suggestions for formation, character, duties, responsibilities, etc.

Among reforms needed to facilitate effective legislation generally would be that of an enactment by which members directly interested in any legislation should *de facto* be

* See p. 241.

disqualified from voting in such cases; just as much, and for precisely the same reasons, that interested parties are excluded from juries.

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§ 91. Legislative and social efforts—essential forerunners of direct temperance legislation—have been for some years continually increasing in number. One of these, known as the coffee tavern and street stall movement, has already become very popular.*

* It is of the utmost importance that the public mind should be disabused of the idea that the various non-alcoholic drinks are *substitutes* for alcohol, or that any such substitutes are required. Alcohol is a poison through and through; the real substitutes for it are also poisons, viz., ethers, chloral, etc. The *Son of Temperance* (April, 1884) makes these pertinent remarks—

"When a man who sticks to alcohol sees an abstainer drinking a *'done* or an *'ade*, he naturally concludes that the whole question at issue is simply one as to the sort of tipple. The alcoholist declares his weak wine to be no viler a compound nor more hurtful than the stuff drunk as a substitute by the abstainer. And in this particular he is not very far wrong. The habit of using a substitute gives an impression that there is a natural want. Taste and expense then become important factors. If there be no saving in the latter the former prevails, and a lapse is the consequence. Many a man who has by his own habits thus obscured the issue has been lost to the movement. Then, again, quite apart from economic and physical considerations, there is the habit of drinking for the mere purpose of drinking. Substitutes perpetuate this ridiculous and pernicious habit. What greater folly can be conceived than liquoring-up at all hours of the day, and for every possible excuse! Substitutes supply the means, and the result is a waste of time and energy by continuance in the old practice."

Ginger beer, if made, as it generally is, by fermenting a mixture of sugar, ginger, and water, contains as much alcohol as ordinary ale; and this is also true of the herb or root beers commonly used in the manufacturing districts. Among healthful invigorating drinks, besides water, are: *Hot milk*, of which the *Louisville Medical News* (November 10, 1883) says, "Milk that is heated too much above 100° Fahr. loses, for the time, a degree of its sweetness and density; but no one fatigued by over-exertion of body or mind who has ever experienced the reviving influence of a tumbler of this beverage as hot as it can be sipped, will willingly forego a resort to it because of its having been rendered somewhat less acceptable to the palate. The promptness with which its cordial influence is felt is indeed surprising. Some portions seem to be digested and appropriated almost immediately; and many who fancy that they need alcoholic stimulants when exhausted by labour of brain or body, will find in this simple draught an equivalent that

The British coffee tavern temperance movement seems to have had its origin in the novel and very noble efforts

The origin and establishment of temperance coffee-taverns in England. Their character and usefulness.

will be as abundantly satisfying and more enduring in its effects." And *oatmeal drink*, the late Dr. Parkes' receipt for which is given here as found in the *Church of England Temperance Chronicle* (June 9, 1883): "The proportions are ¼lb. of oatmeal to two or three quarts of water, according to the heat of the day, and the work and thirst; it should be well boiled, and then an ounce or one and a half ounces of brown sugar added. If you find it thicker than you like, add three quarts of water. Before drinking it shake up the oatmeal well through the liquid. In summer drink this cold; in winter hot. You will find this not only quenches thirst, but will give you more strength and endurance than any other drink. If you cannot boil it, you can take a little oatmeal mixed with cold water and sugar, but this is not so good; always boil it if you can. If at any time you have to make a very long day, as in harvest, and cannot stop for meals, increase the oatmeal to ½lb. or even ¾lb., and the water to three quarts if you are likely to be very thirsty. If you cannot get oatmeal, wheat-flour will do, but not quite so well. Those who tried this recipe last year found that they could get through more work than when using beer, and were stronger and healthier at the end of the harvest. Cold tea and skim milk are also found to be better than beer, but not equal to the oatmeal drink."

An excellent promoter of easy digestion is malt extract. Barley possesses such an abundance of diastase or starch-digesting principle, that malt or an extract from it, if properly prepared, is not only nutritive by reason of the malt sugar, dextrine, and phosphates which it contains, but highly digestive of other starchy foods also, as bread, potatoes, etc. Many persons who are aware of the nutritive and digestive properties of barley malt, resort to beer and other fermented alcoholic liquors, prepared in part from malt, as the most available or proper preparation. But this course is a most mistaken one; for in the first place, in the process of boiling the sweet wort or infusion of malt for the manufacture of beer, all the digestive properties are entirely destroyed, as diastase is rendered quite inert by a temperature of 130°. Therefore beer possesses no ability to aid digestion, and the alcohol it contains we know to be a retarder of digestion. Secondly, in brewing, the nutritive principles are almost all sacrificed by fermentation for the production of alcohol. We find, therefore, in beer hardly anything whatever of the nutritive or digestive beneficial properties of malt, but simply a solution of weak alcohol in a great deal of water, with such other additions as brewers chose to make for the sake of colour or flavour. In order to preserve the nutritive value of malt, Prof. Baron Liebig originated the idea of evaporating the infusion or sweet wort to the consistency of a syrup, in which condition it would keep indefinitely. This process, however, being conducted in an open pan or kettle, and by boiling, the digestive principle was entirely destroyed. By the Kepler process, the evaporation of sweet wort is conducted at a low temper-

The prominent part taken by Mrs. Mary Bayly in this movement.

of Captain George Bayly and his wife, Mrs. Mary Bayly. In 1853 Mrs. Bayly had started a series of Mothers' Meetings in Notting Dale and its vicinity for the purpose of rendering mutual assistance in saving young men from the drink-shops, and helping those women who suffered because of a drinking husband or father.

It was finally resolved at these meetings that steps must be taken to reach the drinking men directly, and in relation to this, Captain Bayly, writing to me, April 11, 1884, says, "On the 1st of February, 1860, Mrs. Bayly invited sixteen of the most notorious drunkards in the Potteries (Kensington) to tea and spend the evening, the result being that five signed the pledge, and in the course of the year more than one hundred signed. . . . At a meeting a man said, 'We want a public-house without the drink!' and on March 16th one was opened and called the 'Workmen's Hall.'"

Reasons for the poor results of the coffee taverns in London.

The "public-house without the drink" became the coffee taverns of which, particularly during the last two or three years, a great number have been established all over the land, owing chiefly to the exertions of the Church of England Temperance Society. That great good has been accomplished through the agency of these taverns and stalls cannot be doubted; but while in Leeds and other places the coffee taverns pay fifteen or twenty per cent., in London the results have been most unsatisfactory, because of the poor furnishing and wretched management of these places.

At a meeting (March 15, 1884) of the relieving officers

ature *in vacuo*, not exceeding 100° Fahr., so that the diastase is fully preserved; and in this product all the valuable properties of malt are preserved in concentrated form, viz., diastase, dextrine, malt sugar, phosphates, and albuminoids, all highly necessary to the human physical growth and health. The *Medical Press and Circular* (London), in reporting on this subject, says that the Kepler Extract of Malt is reliable, and is manufactured in such careful manner as to ensure the preservation of its valuable constituents. It is very delicious to the taste, and has been found by analysis to be exceedingly rich in diastase, and consequently is a valuable digestive agent. The *Lancet* reports upon the Kepler extract as the best known, and in this country (England) the largest used extract of malt. It is as distinct an advance in therapeutics as was the introduction of cod-liver oil. Used with milk, with water, or with soda-water, it makes a nourishing, refreshing drink.

of metropolitan unions invited by the committee of the National Temperance League, "Mr. Birch, for sixteen years a relieving officer in the Holborn union district, said he thought that drink produced three-fourths of the pauperism with which they had to contend. . . . He sincerely hoped that the friends of temperance would endeavour to find some really palatable drink to take the people off intoxicating beverages. As to the coffee taverns, the stuff they sold was not worth drinking. The one they opened in Gray's Inn Road sold articles which the British working man could not be expected to consume, and it was now shut up. . . . A relieving officer from the Whitechapel district said he was glad the first speaker had put the estimate of the drink-caused pauperism at three-fourths. It was a low estimate, but it was one with which they could all agree. Had it been put as high as nine-tenths, he personally should not have objected to it. . . . Mr. Wright said that he had an all-round experience of London, and could testify that the great cause of pauperism was drink. Another cause was the wretched homes in which the people lived, making the public-house the only bit of comfort they could get. His experience of the coffee tavern was anything but to their credit. The articles sold at them were so bad that he did not wonder at people forsaking them for the public-house. There was one man doing an immense and successful work for temperance, and that was Mr. Lockhart. The viands he sold were worth the money he charged for them, and his establishments were greatly appreciated by the poor. Let the coffee taverns imitate his method, and they would succeed." *

Recently a number of interesting letters on this subject have appeared in the *Daily Chronicle*, on which, in its editorial, April 21, 1884, it comments as follows:—

The *Daily Chronicle* on the management of these establishments.

"That the Coffee Palace Movement, in the metropolis at least, has not been so brilliantly successful as its promoters anticipated must, we fear, be admitted. We have received numbers of letters from correspondents complaining of the wretched accommodation provided and the doubtful quality of the refreshments supplied at many of the establishments described as coffee palaces. . . . It would

* *Temperance Record*, March 20, 1884.

be unfair to deny that some of these temperance restaurants are admirably conducted and well-found in every respect, but, as a rule, the coffee palaces are scarcely places to which a philosopher would resort in order to find justification for taking a cheerful view of the problem of existence. When we remember that the great object of the coffee palace movement was to provide counter attractions to the public-houses, and thus to mark the commencement of a new era in the history of social recreation and enjoyment, we cannot admit that the object has been fulfilled. The muddy-brown liquid sold for coffee at the coffee palaces is not calculated to impress people with the advantages of a temperance dietary. If the British workman is to be persuaded to give up his beer, he must be offered something better than a washy solution of horse-beans, rotten dates, and burnt figs. Genuine coffee can be brewed for the price charged for the adulterated rubbish which, if our numerous correspondents are to be believed, is supplied at most of the coffee palaces. We call attention to this matter in the interests of temperance, and should be sorry to say anything detrimental to the cause. We do not see how it is to prosper with the assistance of adulteration. Coffee palaces cannot be successful unless they supply the public with coffee. We trust, therefore, that the promoters of the temperance movement will endeavour to put a stop to the distribution of the objectionable stuff at present sold at their 'palaces.' The buildings themselves, too, would be better adapted to the purpose for which they were designed if an appearance of cheerfulness, comfort, and cleanliness were imparted to them."

To be completely successful, English coffee taverns must supply the best coffee, tea, etc., at the cheapest rates, and to enable them to do this, the duty on tea, coffee, cocoa, etc., ought to be removed, and Java coffee should be as easily obtainable as any other kinds. The ladies who superintend these taverns should thoroughly understand how to prepare the drinks; a book of complaint of management should be on hand at all taverns, in which complaints could be entered and subscribed to by witnesses or partners in the grievance. Friends and supporters of temperance should take a personal interest in

the attractiveness, propriety, excellence, and cheapness of such taverns, securing for them the best bread and butter, cold meats, cheese, coffee, tea, cocoa, chocolate, milk, etc.

They should have neat reading-rooms, with the principal daily and weekly papers, magazines, and sterling light and simple literature in plenty, not simply such books as can be got cheapest, at an auction, or given by somebody without care or selection; on the contrary, it should be an absolute condition that none but thoroughly wholesome books should be admitted, *i.e.*, upon the decision of a competent committee. There should be special meetings and gatherings so arranged as to secure not only social entertainment, but strengthening of the main purpose which brings them together.* For unless the coffee tavern outbids the conveniences of the liquor shop, it will be beaten in the race.

Suggestion for merging the coffee-tavern project into that of the steam kitchen.

But in order to meet the great requirement of the time —a substitute for the public-house; a substitute *not in the sense of equivalent*, but a substitute in the sense that it shall displace and victoriously supplant the public-house —why should not the coffee-tavern system be merged in a more comprehensive plan, by which not only healthy drinks, good amusements, and wholesome literature, but the entire physiological needs of man could be amply and cheaply supplied?

First efforts and progress of the steam kitchen movement on the continent. Mrs. Lina Morgenstern's steam kitchen in Berlin

One of the first efforts in this direction was made at the close of the last century by the famous scientist and philanthropist, Count Rumford, who invented the well-known Rumford soup. The institutions supplying the Rumford soup, during 1818, and again in 1846, 1847, and 1848, did much to save Germany from the horrors of a

* The *Echo* (October 11, 1883) mentions a good movement in behalf of boys, as follows:—

"To-morrow a meeting will be held at the Mansion House to promote the formation of a Working Lads' Institute for East London. The object is to promote the welfare of the working lads of the Metropolis by establishing in those neighbourhoods where large numbers are employed or reside, institutes where such youths may profitably spend their evening hours, and so be saved from temptations and snares of the streets, the public-houses, music-halls, and 'penny gaffs.' In connection with each institute will be provided healthy recreation, good and useful reading, and the means of educational and moral improvement."

general famine. In 1866 Mrs. Lina Morgenstern * built her large and now famous steam kitchen, where all food is prepared scrupulously in accordance with the highest sanitary and scientific methods, is served daintily on the premises, or sent to order, and in all cases sold at the cheapest possible rates. This experiment is now being tried in Stockholm with marked success by Mr. L. O. Smith, the "ex-Brandy King" of Sweden, and there can be no doubt of its success, if properly introduced, in England.

Mr. L. O. Smith's steam kitchen in Stockholm, and his own account of its importance and work.

Co-operation is the watchword of the hour. We practise it with advantage in commercial, industrial, and agricultural pursuits, why should not co-operative food preparation and sale prove successful? Indeed, so far as the masses of both head and hand labourers are concerned, there is every reason to expect that such co-operation will prove in almost every respect more advantageous than any other form.

I have not the space here for treating this great question in detail, I can only throw out a hint or two, and cite briefly from Mr. Smith's experiences.

It is impossible that food should be prepared either as well or as cheaply in the labourer's home, with its generally imperfect domestic facilities, as it could be in a large steam kitchen specially and skilfully constructed, and stocked with utensils and material for feeding thousands of persons. And while poor and badly cooked food notably prepares the stomach to crave for strong drink, nutritious, easily digested, and well-cooked food as notably serves to render the system less tolerant of strong drink, and good health means temperate desires, better work, and that self-reliance which makes a man able to take proper care of himself, and be helpful to others also. From Mr. Smith's views of the working and results of the steam kitchen system, as reported in the *Pall Mall Gazette* (April 3, 1884), I make the following quotations:—

"Of the expenditure of a working man, 15 per cent. only goes in house-rent, while 60 per cent. goes in food. Therefore, if you provide every working man with a free house for ever, the effect is only equal to saving him

* *Die Volkskücken Wirtschaftliche Anstalten für billige nahrende und Schmackhafte Massenspeisung im Krieg una Frieden.* Lina Morgenstern. Berlin, 1883.

15 per cent. of his wages. But if you can make a radical reformation in his food, you have a much greater margin to play upon. If you could provide him with food twice as nourishing as that which he gets now, so that he only needs to buy half as much of it, or if you give him as much food as he gets at present at half the price, you save him at one stroke 30 per cent. of his wages, or twice as much as the whole of his house-rent. And it can be done." *

As to the best system of cooking, Mr. Smith says:

"I have examined almost every system of cooking that is known to civilized man; and I have now come to the conclusion that no system is so good as that of cooking by steam water bath, so economical, so efficient. In cooking the great thing is temperature; and by this means it is possible either to roast or to boil each description of food at the exact degree of the thermometer that is necessary. The system at present in use in the barracks of the German army is by far the best. I have bought up the patent for Norway and Sweden; and before long I expect to have the machines in working order in every town in the whole country. You may think this is a simple matter; but let me tell you the results. In Sweden the working man, at the ordinary cook-shops, will pay 1*s.* 2*d.* a day for three meals for himself. At my kitchen I supply him with three meals a day for 8*d.*, making a saving of 40 per cent., and for this 8*d.* I supply much better food—the very best that can be bought anywhere, and much better cooked than you can get in any hotels in London. I can do this and make a profit at it—a profit of 2½*d.* on each day. I charge them more than cost price in order that the profits may accumulate for establishing other kitchens in other places, and for furnishing the kitchens with adjuncts in the shape of music-halls, libraries, etc., while a part of the accumulated profit is devoted to providing pensions for members in old age."

And as to the management, he adds:

"Come to Stockholm, and I will show you my kitchen in working order. Every Saturday night those who wish to avail themselves of the kitchen must pay an advance

* In an *Open Letter to the Working Men of Sweden*, Mr. Smith says he even thinks that as much as 40 per cent. of the present costs of food might thus be saved.

for the whole seven days. They receive twenty-one tickets, one for each meal. They can give them away if they please, but they are never wasted. We know, therefore, exactly to one meal how many will be required through the week. At Berlin, where there is a society of charitable ladies who supply cheap food for the people, they supply it to any one who comes, and, as a consequence, they never know whether their demand will be great or small, and they have to eat up one day what is left over from another. Under my system nothing is left over. We know exactly what is wanted, and it is cooked fresh when it is wanted. The people can either come and eat their meal at the kitchen, or they can bring it home in vessels which keep it warm. I send out meals to factories and workshops in vessels so constructed that they keep warm for hours. There is nothing wasted, and the food is apportioned, according to the season of the year, on the most scientific principles. Care is taken to provide exactly the number of grammes of fatty matter and albumen—in winter more fat, in spring more albumen; but the correct proportion is always maintained. We have all varieties of food, each cooked in its own proper way to perfection. In the course of the year we have as many as sixty menus from which people can take their choice. The economy resulting is surprising. The waste of separate fires and separate kitchen rooms is appalling. I undertake to provide any family of man, wife, and two children, who will pay me the rent of their kitchen and the cost of their fuel, with dinner all the year round for nothing!"

During his recent visit to London, Mr. Smith told me that by next autumn he expected to have ten large steam kitchens at work in Stockholm.

Pure water the greatest essential for life and health.

§ 92. A remedial measure of the very first importance, in which State, Church, society, and the individual ought to co-operate, is that of procuring for all localities an abundant, permanent, free supply of fresh, pure, sparkling water.

Mr Thomas Tryon on water (1697).

"Spring or fountain water," says Thomas Tryon, in his *Way to save Wealth* (London, 1697), "is the most wholesome and sweet of all drinks. A sober man coming to a feast eats his meat (food) with six times more delight than the other, because he brings an exact palate to taste, and a clean and sharp stomach to entertain it."

In *An Essay on Health and Long Life* (London, 1725), Dr. George Cheyne says—"Without peradventure water was the primitive original drink, and happy had it been for the race of mankind if other mixed and artificial liquors had never been invented. Water alone is sufficient and effectual for all the purposes of human wants in drink. Common sense will tell us that the purest and thinnest water is fittest to circulate through tubes so infinitely small as some in animal bodies are, and even that it alone will nourish plants and bring them to perfection." Dr. George Cheyne on the same (1725).

In dealing with the physiological effects of alcohol we saw how overwhelming is the bodily need of water, that water is the first, food the second, necessity. And therefore it may justly be claimed that for health and normal living, the supply of pure water is as necessary as the supply of pure food.

Some cities—Antwerp among others—have recently secured this priceless boon for the inhabitants, and the laws for the water supply in Antwerp provide that in whatsoever house the landlord has not complied with this ordinance, he can be legally compelled at once to do so. Water ordinance in Antwerp.

As to London, for upwards of thirty years there has been a constant agitation in this direction, though it has not as yet met with complete success. Early in 1859 an association for the erection of drinking-fountains was formed in London by Lord John Russell, and in April of that year it held an important meeting.* The agitation for pure water supply in London, during the last twenty-five years.

Lord Shaftesbury and the chairman, Lord Carlisle, were the most prominent speakers. The latter said he thought "all present would agree with him" that "gin-palaces and beer-houses were the most besetting evils of London, and that drinking-fountains would in some measure alleviate these."

Earl Shaftesbury said that pure water was an imperative need; they were to recollect the general condition of the working classes in this respect. The water was generally received into butts which stood in the outer yard,

* The first fountain, near St. Sepulchre's Church, in Skinner Street, was built the same month. In June, 1862, the magnificent fountain in Victoria Park was inaugurated by its donor, Miss—now Baroness—Burdett-Coutts. Since then between three and four hundred have been erected all over the metropolis.

where they absorbed all the foul air and gases that passed over them.*

During last year an agitation of a more effective character, and which gives promise of ultimate success, called forth the following letter to the *Pall Mall Gazette* (August 13, 1883) :—

A writer in the *Pall Mall Gazette* on the present quality of the water supply in London.

"Sir,—Five of the metropolitan water companies draw their supplies from the Thames above Teddington Lock. The average daily flow of the river at the intakes during August is 500,000,000 gallons. These companies abstract 68,000,000 gallons per day—that is, a little more than one eighth of the total flow. They possess power to abstract 110,000,000 gallons per day. On the drainage area of the Thames there dwell 900,000 people (including 200,000 in towns of upwards of 2,000 inhabitants), and upon it there live 60,000 horses, 160,000 cattle, 900,000 sheep, and 120,000 pigs. Their sewage and refuse pass into the Thames, either directly or indirectly. The theory that polluted river-water purifies itself in its flow has been proved to be false. After filtration this water is sent to London. It is considered very satisfactory when filtration removes 28 per cent. of the organic impurities, leaving 72 per cent. to be supplied in solution to the consumer. The companies derive a gross annual income of £750,000 for this supply. The volume of the flow in the river is fairly constant, but the amounts of its pollution and of the quantities abstracted daily are necessarily increasing ones. The whole of these figures are taken from Bluebooks, and, if disputed, the reference for each will be given.

"If it were possible for these companies to have a reservoir containing 68,000,000 gallons of absolutely pure water, and into it were allowed to go the contents of water-closets, household slops, and manufacturing refuse of 112,500 people, in the same proportion in which they respectively enter the Thames at the present time, and in addition as much of the manure of 7,500 horses, 20,000 cattle, 112,500 sheep, and 15,000 pigs, as could find its way there, and if 28 per cent., or even 50 per cent., of

* Recent inquiries into the circumstances of the London poor have shown that the condition of things deprecated in 1859, have not been much improved in some of the London slums to-day.

these organic impurities were removed by filtration, is there any householder in London who would use it for drinking and domestic purposes? Yet this is *pro ratâ* what they uncomplainingly receive and use every day.—I am, Sir, your obedient servant,

"S."

Undoubtedly there would be a hue and cry about the enormous cost of an undertaking such as has been carried through in Antwerp, but suppose it were possible at the same cost to as liberally supply beer and wine, would not the money be forthcoming? And yet those compounds are poisons, and water is the principal need of life.

There is little doubt that the use of intoxicating drinks would be infinitely reduced if, instead of these dead fluids from aqueducts and reservoirs, everybody in the large centres of the world could have an abundance of fresh pure water always at hand.* Any one who has drunk from a mountain spring realizes the difference. Grandly and permanently successful may the temperance agitation hope to become if it can secure sufficient public interest to obtain this priceless boon, this daily necessity to health from the cradle to the grave, and one more calculated than is almost any other agent to widen the distance between them.

The *New York Medical Record* on water for infants.

Under the heading of *Water for Infants*, the *New York Medical Record* (August 18, 1883) says:—

"With the exception of tuberculosis, no disease is so fatal in infancy as intestinal catarrh, occurring especially during the hot summer months, and caused, in the majority of cases, by improper diet. There are many upon whom the idea does not seem to have impressed itself that an infant can be thirsty without at the same time being hungry. When milk, the chief food of infants, is given in excess, acid fermentation results, causing vomiting, diarrhœa, with passage of green or yellowish-green stools, elevated temperature, and the subsequent train of symptoms

* Drinkers no less than abstainers ought to interest themselves in this subject, because their drinks, besides the alcohol and various adulterating compounds, consist, as they know, mostly of water—exactly the same kind of water which the abstainer takes, minus the other compounds.

which are too familiar to need repetition. The same thing would occur in the adult if drenched with milk. The infant needs not food, but drink. The recommendation of some writers, that barley-water or gum-water be given to the little patients in these cases, is sufficient explanation of their want of success in treating this affection. *Pure water is perfectly innocuous to infants;* it is difficult to conceive how the seeming prejudice to it ever arose. Any one who has ever noticed the avidity with which a fretful sick infant drinks water, and marks the early abatement of febrile and other symptoms, will be convinced that water as a beverage, a quencher of thirst, a physiological necessity, in fact, should not be denied to the helpless member of society. We have often seen an infant who has been dosed *ad nauseam* for gastro-intestinal irritability assume, almost at once, a more cheerful appearance, and rapidly grow better when treated to the much-needed draught of water. If any prescription is valuable enough to be used as routine practice, it is, '*Give the babies water.*'"

Dr. James Wilson on the therapeutic properties of water.

Of both the health-preserving and medicinal qualities of pure water, Dr. James Wilson writes:—

"There is no agent applied to the human body, externally or internally, that has such influence in awakening all the vital powers to their great restorative capabilities, in arresting the progress of disease or preventing a fatal termination, as pure water. Administered at various temperatures, it is the most powerful remedy we possess; a stimulant, a sedative, a diuretic, a sudorific."

In an article on *Water-drinking*, *The Lancet* (December 15, 1883) says—

The *Lancet* on water-drinking.

"It is somewhat surprising that in a country in which rain falls almost every day in large or small measure, the use of pure water as a drink is not better understood than it is. Even now that the sway of temperance is well established, and continues to extend, we should be surprised to learn that a majority of Englishmen do not habitually discard the use of the natural beverage for one or other in which it is compounded with foreign ingredients. Yet its very purity from all but a salutary trace of mineral matter is what renders it capable of exactly satisfying, and neither more nor less than satisfying, the needs of thirsty tissue, and of assisting by its mere diluent and solvent action,

without stimulation or other affection of function, the digestion and excretion of food. No other qualifications are necessary. Given digestible, solid food, and fair—that is, normal—digestive power, water alone is all-sufficient as liquid. During the feebleness consequent on disease or overwork everything is changed. There is blood, though impoverished in quality, to receive and convey nutritive material, and there are tissues to be fed; but the *vis a tergo*, the driving power of the heart, resides in a languid muscle, and the alimentary canal, itself but poorly irrigated from that centre of supply, receives what food is taken only to prove its incapacity to utilize it. Nature is flagging, and a stimulant alone will make ends meet in the circle of tissue-building processes. As a general rule, however, abstinence holds the first rank, both in theory and practice. We do not assert that the man who regularly, and in strict moderation, partakes of a light stimulant—claret, for instance—may not, especially if he is equally regular in regard to outdoor exercise, live comfortably to the full term of human life; but what we say is that the more simply the man fares, the more he employs such adventitious measures for actual physical necessity, the more he will gain in health, in life, in working power, and in aptitude to benefit by stimulation when strength is failing from disease or from decay. But if water be the drink, how shall it be drunk? The means must have regard to the end required of them. To moisten food and prepare it for digestion, it is hardly necessary to say that it should be taken with a meal; a couple of tumblerfuls at dinner is not an excessive quantity for most persons. For thirst-quenching properties nothing can surpass this simplest of drinks, and all which approach it in efficacy owe their power almost entirely to it. As to temperature, there is no real ground for supposing that one should not drink a sufficiency of cold water when the body is heated by exertion. The inhabitants of hot climates have no such objection. Some tropical wells are dug so deep that the water within them, even in hot seasons, is as cool as that of a European spring. In fevers, too, the use of ice in quantities sufficient to allay thirst is a part of rational and legitimate treatment. The shock which has to be avoided in all such states is not that which cools the mucous

membrane, but that of sharp chill applied to the surface of the body. Some persons, however, find it convenient and beneficial to imbibe a certain amount of warm water daily, preferably at bedtime. They find that they thus obtain a bland diluent and laxative, without even the momentary reaction which follows the introduction of a colder fluid, and softened by abstraction of its calcareous matter in the previous process of boiling. This method, which is an accommodation to jaded stomachs, has its value for such, though it is not great even for them ; but it affords no noticeable advantage for those of greater tone. The use of water as an aid to excretion deserves some remark. In certain cases of renal disease it has been found to assist elimination of waste by flushing without in any way irritating the kidneys. Every one is probably aware of its similar action on the contents of the bowel when taken on the old-fashioned, but common-sense, plan of drinking a glass of water regularly morning and evening, without any solid food. Whatever may be true of harmless luxuries, enough has been said to show that health, happiness, and work find stimulus enough in the unsophisticated well of nature."

Dr. Plöhn's bibliography on water in Dr. Ziemssen's *Handbook of General Therapeutics.*

Those who imagine water to be such a weak and vapid thing, would be interested in examining the bibliography on water (by Dr. Plöhn) published in Dr. Ziemssen's *Handbook of General Therapeutics* (Leipsic, 1883), occupying twenty-eight large octavo close and small-printed pages, showing the medical literature on water to be almost as voluminous as the religious literature on the Bible.

Interesting testimony of Dr. Morel to the recuperative power of natural functions when perversions of them are desisted from.

Dr. Morel, in speaking of the fact that the practice of milking cows all the year round, during long ranges of generations has made the secretion of milk a constant instead of temporary function, cites the interesting cognate fact, that in Columbia, where circumstances, such as the great superabundance of cattle, etc., have interrupted this practice, only a few years of freedom from its constraint have sufficed to restore the organization to its primitive type.

So if in our case the practice of drinking without reference to real thirst, and in obedience to craving produced by injurious fluids, could be abrogated, and pure water be permitted to resume its original office in the

system, which it would do in all likelihood in an astonishingly short time, we are justified in believing that it would mark an epoch in the condition of mankind, not only of physical, but of moral, mental, and spiritual health far closer to the pure ideal of humanity than we have yet reached or prefigured.

The importance of instructing children to understand their own bodies, especially in regard to the harm alcohol does to them.

§ 93. A great step in the direction of reform in part commenced, is that of educating the young to understand and respect their bodies. As early as 1856, at the *Congrès de Bienfaisance* (Brussels), it was proposed, as a means against intemperance, that all obstacles to the spread of useful knowledge to the very lowest grades of society should be removed; and Frère Orban, Belgian Minister of Finance, in his report on intoxicating drinks, to the Chamber, (1868), proposed the establishment of "a public system of education which tends to inculcate in the children, by counsels, pictures, and writings, horror of excess and fear of the evils sure to result from intemperance *or the least use of intoxicating drinks.*"

Testimony of the Lord Bishop of Exeter.

The first active step in the direction of temperance education in England was taken by the National Temperance League, and in a special memorable meeting at Exeter Hall (February 13th, 1878), the Lord Bishop of Exeter, in the chair, in a powerful and eloquent speech said, "Long before this we ought to have made it one of the ordinary lessons in our elementary schools that one of the most awful evils that ever afflicted the country is to be found in the use of intoxicating liquors."

Of the Rev. Dr. Adamson, of the Edinburgh School Board.

Rev. Dr. Adamson, of the Edinburgh School Board, at a public meeting at Galashiels (February, 1881), stated that "Ninety-four per cent. of the cases in which parents failed to provide education for their children were found to be addicted to intemperance."

Although elementary temperance literature has become more familiar to the children since it was allowed among text-books, very much yet remains to be done before either the schools or the little ones can be in a fit state for purposes of education.

Why the popular education

The popular education system is poor because it is so meagrely supported by public funds. Leon Donnat, the Belgian Statistician, in speaking of the relative amount of

system is poor.

public money devoted to war and education, gives the following figures *per capita*, quoted in the *Pall Mall Gazette* for May 5, 1883 :—

Leon Donnat's estimates quoted in the *Pall Mall Gazette* of the relative amounts expended on education and war by the European powers.

"

	War.		Education.			War.		Education.	
	s.	*d.*		*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
France	20	0	.....	1	5	Russia	10	2	 0	1½
England	18	6	.....	3	1	Denmark ...	8	8	 4	7
Holland	17	9	.....	3	2	Italy	7	6	 0	8
Saxony	11	9	.....	3	4	Belgium	6	9	 2	3
Wurtemberg...	11	9	.....	1	9	Austria	6	8	 1	6
Bavaria	11	9	.....	2	6	Switzerland ...	4	10	 4	2
Prussia	10	11	.....	2	5					

This comparison, of course, takes no account of the frightful waste entailed by the sacrifice of the labour of able-bodied men during the period of military service."

As a consequence, there is neither the inducement nor effort on the part of the State to engage the best minds and characters in the education of the growing generation.

Again, education is poor because it is almost wholly confined to the cultivation of the intellect: practical goodness, patience, conscientiousness, and self-control do not enter into the curriculum.

How inadequate purely intellectual training is likely to be to fulfil the needs of well-rounded education, is strikingly indicated by the statistics as to the results of the Compulsory Education Act during the last ten years at Edinburgh. At the great Temperance Convention in Edinburgh, March 3, 1884, ex-Bailie David Lewis said that "During the last ten years the Compulsory Education Act had been in operation, and in this city had been wrought with an efficiency second to no other place in the kingdom, while the educational system in Edinburgh was equal to that of any city of Europe. During the last ten years there had been expended on education in Edinburgh a sum of £1,035,000, while there were at present engaged a staff of 730 teachers. Notwithstanding the enormous amount of moral and educational power here represented, they found from the police returns that the number of drunken cases had increased from 5317 in 1872 to 7236 in 1882, being an increase of 26 per cent., while the increase of the population had only been 16 per cent. Again, they found Edinburgh presented an illustration of

Ex-Bailie Lewis on the inadequacy of the Compulsory Education Act and of sanitary agencies to uproot or essentially diminish the vice and misery produced by the public-house.

the extent to which sanitary agencies were counteracted by the drink evil. In 1867 an Act was passed for improving the waste places of the city. Upwards of half a million was expended in rooting out the haunts of wretchedness and vice; while another half-million was expended on improved dwellings and other sanitary reforms. That the results of this grand sanitary experiment had been largely counteracted by the public-house was only too apparent. From 1867 up till 1879, when they had a change in the police law, the number of drunken cases increased 43 per cent., while the population had only increased 16 per cent."

Dr. Channing's definition of education.

Says Dr. Channing,* "To educate is something more than to teach those elements of knowledge which are needed to get a subsistence. It is to exercise and call out the higher faculties and affections of a human being. Education is not the authoritative, compulsory, mechanical training of passive pupils, but the influence of gifted and quickening minds on the spirits of the young.

His views on the true use of wealth.

"Of what use, let me ask, *is the wealth of this community but to train up a better generation than ourselves?* Of what use is freedom, I ask, except to call forth the best powers of all classes and every individual? What but human improvement is the great end of society?

"The poorest child ought to have liberal means of self-improvement, and were there a true reverence among us for human nature and for Christianity, he would find them."

Education is poor, also, because it almost wholly fails to teach the knowledge of the body and how to take care of it.

But in this respect a little light is breaking.

Temperance teachings in the schools of Massachusetts, 1872.

In sect. 10, chap. 38 of the Revised Statutes of Massachusetts for 1872, occurs the following:—"It shall be the duty of the president, professors, and tutors of the University at Cambridge and of the several colleges, of all preceptors and teachers of academies, and of all other instructors of youth, to exert their best endeavours to impress on the minds of children and youth committed to their care and instruction the principles of piety and justice, and a sacred regard for truth; love of their

* Temperance address, Boston, 1837.

country, humanity, and universal benevolence; sobriety, industry, and frugality; chastity, moderation, and temperance."

The noble labours of the National Temperance League for the spread of temperance education.

In England, owing to the faithful and skilful labours of the National Temperance League,* temperance has become a familiar theme in public schools. The *Temperance Record* for September 13, 1883, notes that—

"The Lords of the Committee of Council on Education have added hygiene to the list of sciences towards instruction, in which aid is afforded by the Science and Art Department.

"The syllabus of the subject that has been issued by the Education Department is as follows:—

"'*Elementary Stage.*—(1) Food, diet, and cooking; (2) water and beverages; (3) removal of waste and impurities; (4) air; (5) shelter and warming; (6) local conditions; (7) personal hygiene; (8) treatment of slight wounds and accidents. *Advanced Stage.*—(1) Food and adulterations; (2) water and beverages; (3) examination of air—chemical and microscopical; (4) removal of waste and impurities; (5) shelter and warming; (6) local conditions; (7) personal hygiene; (8) prevention of disease. The *Honours Stage* embraces, in addition to the above subdivisions of the subject, (1) trades nuisances; (2) vital statistics; and (3) sanitary law.'"

Cardinal Manning's order for the establishment of branches of the Catholic Total Abstinence League in every Catholic school in the Archdiocese of Westminster.

And Cardinal Manning, according to the *Daily News* (November 28, 1883), "has issued an order that a branch of the Catholic Total Abstinence League of the Cross shall be formed in every Catholic school in the Archdiocese of Westminster; and that the manager of each school shall be the president of each branch; and temperance literature is to be supplied to the pupils at weekly meetings of the branches."

Considering the almost incalculable influence teachers have over children, and the fact that in the elementary schools of England there are over four millions of children, what power must the teachers exert in determining the whole future of the nation! and if they will use this power in impressing the growing minds under their care with a full and particular knowledge of the facts concerning

* The apostles of the National Temperance League are doing a great work in both army and navy.

the evil of alcoholic liquors, what a mighty work for temperance will be accomplished with the little ones themselves and, through them, in innumerable homes threatened with or already fallen under this curse!

Efforts to establish temperance education in German schools;

That similar grand school reforms are going forward on the continent, is evident from the report, in the *Temperance Record* (September 20, 1883), of "an address delivered by Dr. Scholtz, of Bremen, on the 17th of May last, before the Allgemeine Deutsche Lehrerversammlung, a national union of teachers, not exclusively, though of course largely, composed of elementary teachers, which met this year in that town. Dr. Scholtz propounded four theses, each of which he defended in turn. (1) That the teaching of hygiene should be obligatory in all schools. (2) Hygiene should be treated as a part of natural science. (3) The teaching of anatomy and physiology should be strictly limited to such points as have a direct bearing on the health of the individual. (4) Dr. Scholtz's last thesis was, that in the seminaries (*i.e.*, training colleges) hygiene should be taught as an integral subject of study, for the good reason that he who attempts to teach the elements of a science should first be master of every part. The outline he sketched of the subjects to be taught is nearly identical with the syllabus recently issued by our department."

And in Canadian, Australian, and American schools.

Elementary temperance teaching is at present furnished in many schools in Canada as well as in Australia, and the *Temperance Record* (January 31, 1884) contains an article on temperance work in United States' schools taken from the *National Temperance Advocate* of New York, which says—

"Already laws have been passed in Minnesota, Vermont, and Michigan, placing among the required studies in all schools supported by public money or under State control, physiology and hygiene, which shall give special prominence to the effect of alcoholic drinks upon the human system, and teachers must be examined in this as in other necessary studies. By circulating petitions and by other means similar laws for compulsory temperance education can be passed in every State, because people will vote for the education of their children far sooner than they will for prohibition."

The *Pall Mall Gazette* (February 16, 1884) says—

"An American Assembly-man, who holds that besides

the three R's instruction in physiology and hygiene should be given in the public schools of America, has drafted a bill for that purpose. In his opinion it is necessary that some knowledge of the human body, and of the conditions under which that body can live in a healthy state, should be imparted to a child. And not only should this be taught, but it should be taught with especial reference to the effect of narcotic and alcoholic poisons on the human system. His bill requires that teachers applying for positions in the public schools shall be examined with reference to their knowledge of physiology and hygiene."

The school savings-bank system in Sweden.

An institution in connection with the public schools in Sweden which is greatly promotive of temperance is the school savings-bank system, by which the pupils, boys and girls, are from their earliest years encouraged to deposit small sums, of only a few öre (ten öre a little more than one penny) at a time till a crown (a little over a shilling) has been laid up, when it is transferred to the real city savings-bank, so that when they come of age they have a little nest-egg to begin life with, and at the same time have acquired a rational practical habit of economy.

The industry which goes naturally with economy and temperance is also practically taught in the workshop department of these schools in which the pupils receive regular instruction in all sorts of useful handicraft, and ornamental also. They receive twenty per cent. on the sale of the tools and implements they make, from knife handles and knife trays, to blackboard brushes and step-ladders. These schools have special tuition in the laws of health; and as to the products of both the animal and vegetable kingdoms, the girls are taught all the mechanical processess of milk and butter-making, the character and names of all portions of fish and flesh as sold in the markets, and how to utilize them in the best methods of cooking, what to do with bones, fat, etc.; the same with regard to vegetables, flax, hemp, etc. They are trained to describe the different materials and values of the clothing they have on, where in Sweden each particular animal product or fabric is to be found, etc., etc., A most admirable preparation against the waste, carelessness, and degradation which are so much the results of ignorance.

But the worst cause why popular education fails, and the most difficult of remedy, is the miserable poverty * of the masses whose children form the vast majority of the attendance at public schools; and that drink is the chief cause of this poverty,† does not change the fact that the children, hungry, ill-clothed, and full of premature care, are in no condition to study, or to profit by teaching.

Poverty the worst enemy of popular education, and drink the chief cause of poverty.

Mr. E. N. Buxton, Chairman of the London School Board, in his opening address to that body, October 4, 1883, drew a dismal picture of the failure of the Education Act of 1870. Among other sad examples he quotes—

Statement by Mr. E. N. Buxton, Chairman of the London School Board.

"The School Management Committee lately had a report in which an analysis was made of the mode of living of the parents whose children attend school in the metropolis. In one, the scholars came from 313 families, and 182 of these families live in a single room. In the second school, the scholars came from 487 families, 400 of whom lived in one room. In a third school, the children came from 339 families, 289 of whom lived in one room."

In his address to his constituents at Sheffield (December 11, 1883), *Drink in its Bearing upon Education*, the Right Honourable Mr. Mundella, M.P., said—

Statement by the Right Hon. Mr. Mundella on drink in its bearing upon education.

* The education of the wealthy is often, though in the very opposite direction, almost as ineffectual as that of the poor. With birth and money, one or both, behind them, the young Farintoshes and Lord Verisophts have it all their own way with their tutors and professors; at home, at school, at the university they are deferred to, flattered, and coached into what is deemed a gentlemanly education. The system fosters indolence, dissipation, and the concrete vices of selfishness, totally unfitting them for doing their part in this or any great work of reform. Yet it is as essential to the well-being of society that the education of the wealthy should be practical, serious, and broad as it is that the children of the poor should be properly fed, clothed, and cared for before they are put to books.

"If I were called upon to name those within my knowledge who have ruined their prospects in life, who have lost good situations and have fallen from comparative care and competence to a state of degradation, they would not be the men belonging to the labouring class, following agricultural or mechanical pursuits; but they would be men of a superior class, of good education—men who have enjoyed comfortable homes and good salaries, and who, in spite of all, have fallen victims to this abominable and frightful vice of drink."—Quotation from an address by Mr. Walter, M.P., proprietor of the *Times*, cited in Rev. Dr. Dawson Burns' *Christendom and the Drink Curse* (London, 1875).

† See Chap. x. pp. 234–265.

"Now, here is a block containing 1082 families and 2153 children of school age; mind, that excludes children below five years of age, and above thirteen. There are three schools in the block, two churches, three chapels, and forty-one public-houses. Now, what does that mean? I want you just to think this out for a moment. For these 1082 families—wretched, poverty-stricken, miserable in all their surroundings—there are forty-one public-houses! That means that every twenty-five of these wretched families have one public-house! If you will carry it out for yourselves—that is to say, if you consider what it costs to maintain an average public-house in London, and consider what these twenty-five families must spend in drink to maintain it—you will form some idea of one of the greatest causes of this misery among our population. When Mr. Forster was passing his Education Bill, Mr. Bartley made an investigation, which showed that less than one penny per week per family in a square mile of the East of London was spent on education, and more than 4*s.* 3*d.* in drink. That means, in the whole of this area of wretchedness of a mile square, the education cost less than four shillings a year for the family, and the drink more than £11."

Poverty will never yield until drink is removed.

Yet with all that England has done to relieve it, especially during the last forty years, we see this poverty not only not overcome, but steadily growing. Why?

Because those who see and seek to alleviate poverty do not first attack the root of the evil, drink. In chapters vii. and x., on moral and social results, it was explained at length how omnipotent a cause drink is, of all evils and of poverty with all its concomitants of misery.

Forty years ago an agitation for the removal of poverty, very similar to the present, shook the whole of England. On the 13th of February, 1843, Mr. Gladstone said to the House of Commons:—

Mr. Gladstone on poverty, in the House of Commons, in 1843.

"It is one of the most melancholy features in the social state of this country that we see, beyond the possibility of denial, that while there is at this moment a decrease in the consuming powers of the people, an increase of the pressure of privations and distress, there is at the same time a constant accumulation of wealth in the upper classes, an increase of luxuriousness of their habits and of their

means of enjoyment, which, however satisfactory it may be as affording evidence of the existence and abundance of one among the elements of national prosperity, yet adds bitterness to the reflections which are forced upon us by the distresses of the rest of our fellow-countrymen."

Lord Salisbury's suggestions for the alleviation of poverty as made in the *National Review*, November, 1883.

To-day most radical measures are proposed even by the members of former cabinets, as well as by members of the present cabinet. Lord Salisbury, member of the Beaconsfield cabinet, and present leader of the Conservative party, contributed to the *National Review* (November, 1883), a notable paper on *Labourers' and Artisans' Dwellings*, in which he advocates measures for the "housing of the poor," of a state-socialistic nature. The following is a fair digest of this article:—

"The housing of the poor in our great towns, especially in London, is a much more difficult and much more urgent question, for the increase of prosperity tends rather to aggravate the existing evil than to lighten it. It is, in fact, directly caused by our prosperity. . . .

"Thousands of families have only a single room to dwell in, where they sleep and eat, multiply and die. For this miserable lodging they pay a price ranging from two shillings to five shillings a week—a larger rent, on the whole, than the agricultural labourer pays for a cottage and garden in the country. It is difficult to exaggerate the misery which such conditions of life must cause, or the impulse which they must give to vice. . . . These overcrowded centres of population are also centres of disease; the successive discoveries of biologists tell us more and more clearly that there is in this matter an indissoluble partnership among all human beings breathing in the same vicinity. If the causes of disease were inanimate, no one would hesitate about employing advances of public money to render them innocuous. Why should the expenditure become illegitimate because these causes happen to be human beings? . . . The question remains whether more can be done by Parliament than has been done, and if so, in what direction ought it to move? A more important subject of inquiry could hardly be suggested; for it concerns, directly or indirectly, the well-being of hundreds of thousands. . . . I see a statement in the newspapers that the Liberty and Property Defence League are prepar-

ing to denounce any such interference as unsound in principle. If this account of their views is a true one, I think they have in this instance gone farther than sound reasoning and the precedents of our legislation will justify. . . . This unhappy population has a special claim on any assistance that Parliament can give. The evil has in a great measure been created by Parliament itself. . . . Under these circumstances, it is no violation even of the most scrupulous principles to ask Parliament to give what relief it can. *Laissez faire* is an admirable doctrine, but it must be applied on both sides."

This shows how keenly alive Lord Salisbury is to the horrible condition of the poor in the city: how about those in the country? But he has not a word to say of drink, the chief cause of it; and, curiously enough, states that "the evil has been in a great measure created by Parliament itself."

Mr. Chamberlain on the same topic in *Fortnightly Review*, December, 1883.

Mr. Joseph Chamberlain, President of the Board of Trade, contributed to the December number of the *Fortnightly Review* (1883) an article on the *Housing of the Poor*, which is even more radical than Lord Salisbury's in its suggestions for the removal of poverty. It opens with this ominous paragraph—

"Social reform is in the air. In the pages of this review able writers have for some time past endeavoured to impress on statesmen and politicians the urgency of social questions and the magnitude of the evils which have silently undermined the extraordinary show of outward prosperity on which we have been congratulating ourselves during the last thirty years. Never before in our history were wealth and the evidences of wealth so abundant; never before was luxurious living so general and so wanton in its display; and never before was the misery of the very poor more intense, or the conditions of their daily life more hopeless and more degraded. In the course of the last twenty years it is estimated that the annual income of the nation has increased by six hundred millions, but there are still nearly a million persons constantly in receipt of parish relief, and millions more are always on the verge of this necessity. The vast wealth which modern progress has created has run into 'pockets;' individuals and classes have grown rich beyond the dreams of avarice, and are

busying themselves in inventing methods of wasting the money which they are unable to enjoy. But the great majority of the 'toilers and spinners' have derived no proportionate advantage from the prosperity which they have helped to create, while a population equal to that of the whole metropolis has remained constantly in a state of abject destitution and misery. Is it wonderful that from time to time are heard murmurs of discontent and even of impatient anger? What manner of men and women must these millions of paupers be if they can see without repining or resentment the complacent exhibition of opulence and ease which is for ever flaunted in their faces, within a few hundred yards of the noisome courts and alleys in which they huddle for warmth and shelter, without a single comfort, and in hourly anxiety for the barest necessaries of life? The cry of distress is as yet almost inarticulate, but it will not always remain so. The needs of the poor are gradually finding expression; the measures proposed for their relief are coming under discussion. The wide circulation of such books as the 'Progress and Poverty,' of Mr. Henry George, and the acceptance which his proposals have found among the working classes, are facts full of significance and warning. If something be not done quickly to meet the growing necessities of the case, we may live to see theories as wild and methods as unjust as those suggested by the American economist adopted as the creed of no inconsiderable portion of the electorate."

He also ignores drink as a chief agent in this misery, and suggests a principal remedy in these words:—

"Let us go to the root of the matter, and state the principle on which alone a radical reform is possible. *The expense of making towns habitable for the toilers who dwell in them must be thrown on the land which their toil makes valuable, and without any effort on the part of its owners.*

"When these owners, not satisfied with the unearned increment which the general prosperity of the country has created, obtain exorbitant returns from their investment by permitting arrangements which make their property a public nuisance and a public danger, the State is entitled to step in and to deprive them of the rights which they have abused, paying only such compensation as will fairly represent the worth of their property fairly used."

Dangers from supplanting moral impetus by mere political agitation.

If legislation could remove poverty, Mr. Chamberlain's remedy would doubtless go far towards doing so; but if this matter be left to legislation only, or chiefly, *i.e.*, if the question of poverty is made principally a political one, and therefore through political interests and reasons introduced into Parliament—instead of being brought there by force of the earnest, calm, intelligent expression of the popular will, because it is known and felt that the solution of the poverty problem is of paramount importance to the welfare of the whole nation—it is too likely to meet with the same fate which has befallen other great moral measures when dealt with from a chiefly political point of view.

Earl Shaftesbury on the mischief of State aid, *Nineteenth Century*, December, 1883.

Earl Shaftesbury, in his part, *The Mischief of State Aid*, in the symposium on poverty and its remedies (*Nineteenth Century*, December, 1883), admirably points this fact in these words:

"If the State is to be summoned not only to provide houses for the labouring classes, but also to supply such dwellings at nominal rents, it will, while doing something on behalf of their physical condition, utterly destroy their moral energies. The State is bound in a case such as this to give every facility by law and enabling statutes,* but the work itself should be founded and proceed on voluntary effort, for which there is in the country an adequate amount of wealth, zeal, and intelligence. . . . Were a central committee formed in the city of London, consisting of gentlemen of power, wealth, and influence, who would undertake to organize such a movement, form local committees (for local committees there must be in the several districts), and issue an appeal, there would be in the present day, few can doubt it, a ready and ample response. These gentlemen would determine how far they could proceed without new legislation; though additional laws, if required at all, would be required rather for the completion than for the commencement of the work. The powers already in existence should be called into operation. They are far greater than most people are aware of."

Earl Shaftesbury's statement that "It is impossible, absolutely impossible, to do anything

These are invaluable suggestions, but, as Earl Shaftesbury himself told me, "It is impossible, absolutely impossible, to do anything to permanently or considerably relieve this poverty, until we have got rid of the curse of drink."

* Enabling Statutes, 14 and 15 Vict. chap. 34 of 1851.

And towards this end a report from such committees as Lord Shaftesbury suggests, would undoubtedly accomplish much.

to permanently or considerably relieve poverty, until we have got rid of the curse of drink."

The very removal of drink would make it physically impossible for the poor to sink so low as they now do, because it is only by means of the deadening, narcotizing effects that drink exercises on body and soul, that human beings can be brought to endure the lowest kinds of degradation.

Without the benumbing influence of drink, many would awaken to their degraded condition, and this awakening would enable poor relief committees to do most beneficent and effective work.

A working woman's letter, suggesting the establishment of a Government Labour Registry Office (*Daily News*, December, 1883).

For example, a *Working Woman*, in the column on *The London Poor* (*Daily News*, December 1, 1883), suggests the establishment of "A Labour Registry Office, conducted by Government or a company, where information might be obtained as to every kind of labourer, mechanic, or clerk required. To be effectual, it should of course be necessary to have these offices in all parts of the country, connected perhaps with the post-office or workmen's clubs; they could be applied to by letter or personally. A certificate or recommendation from the last employer should be made a *sine quâ non;* thus enabling all good workmen to obtain employment, which is far from being the case now. It seems to me that the matter is worth a trial, especially as a successful instance is before us of a domestic servants' agency. At this establishment no servant is put on the list until a form has been sent to the former master or mistress, which they are desired to fill up as to the character of the servant applying for a place. This, if conscientiously filled up, is a great deterrent to character-less servants from applying."

Suggestion as to the establishment of sober working men's relief banks.

Another remedy, which Government, and such poor relief committees as Earl Shaftesbury suggests, might co-operate in effecting, consists in the establishment of sober working men's banks,* where those deemed by a proper

* A most valuable suggestion as to the formation and conduct of working men's banks is given in Mr. L. O. Smith's *Open Letter to the Labourers of Sweden* (Stockholm, 1883). This letter is, as a whole, so rich in practical suggestions, that if translated and sown broadcast over Great Britain, it would do much to produce in working

board of judges fit recipients of pecuniary aid, should obtain it free of interest, and on the understanding that it was left to their honour to return such sums when able to do so. But no drinking person should be entitled to such aid, simply on the ground of his unreliability, and the probability that the money would go to the publican rather than to the improvement of his own condition. Special arrangements encouraging the deposit of savings, with a view to the support of widows and children of sober working men, might be made in these banks; and a special department could be provided for the deposit of savings from drink, which could be promoted by many carefully considered regulations; such, for instance, as the surety that when the total amount of deposit of this character—representing moral growth through resistance to temptation—should have reached a certain figure, it should be augmented by a liberal gift, and a similar gift follow upon a future specified increase; so that reformed drinkers would be strengthened in their reformation, not only by knowing that something was safe for a rainy day, for accident, for illness, or for some good enterprise for bettering their condition, but that in case of their death their wives and children would be provided for.

If the aristocracy and the wealth of London would establish and maintain an adequate institution of this kind, the expense to them individually would be trifling in proportion to their means, while the return in the diminution of poor rates, and in the imperishable wealth of doing good, would be very great; and, a still more vital point, they would lessen the gross total of wrong which saturates civilization, retarding human progress in the proportion of the existing amount of ill.

There are links between the den and the palace, ties between the millionaire and the beggar, the virtuous and the wicked. Generally there exists a constant gradation between these conditions, at times there is a sudden transposition from the one to the other; the connecting processes are usually invisible, but they are none the less real, and work out the results with terrible certainty and accuracy.

men's minds an intelligent notion of how to improve their whole economic, moral, social, and political position.

If England continues practically to ignore, or condone and minimize the drink evil as the root of poverty, infamy, and crime, she will reap the fruits of this error. Only with the solution of this problem will real goodness, with the happiness and peace they engender, come into those hearts and homes where wealth and luxury now only emphasize the unrest, the hollowness, and the hardness of their prosperous inmates.

Mr. Francis Peek on the responsibility of the rich in the question of poverty and drink.

Contrasting the scenes in the London slums with the splendour and lavish luxury of London's wealthy homes, Mr. Francis Peek (*Social Wreckage*, London, 1883) says, "How startling the contrast between the magnificence there and the sordid destitution here; between these fair, richly clad, attractive women and those hideous human beings of the same sex, who sit shivering in rags and grimed with dirt! Is it asked who is responsible for such a contrast? Surely every indolent man or woman, who, living in ease and plenty, leaves things to take their chance under the excuse of business for want of power, but really with the unexpressed plea of Cain, 'Am I my brother's keeper?'

"Retribution is the law of the universe. If we allow our brothers and sisters to drag out their existence in degradation, pauperism, and crime, a time will come, even in this world, when selfishness, pride, and indolence will bring their bitter reward. If the Christian teaching of brotherhood be ignored, the words 'liberty, faternity, equality' may once more become a battle-cry of revenge from those to whom the acknowledgment of their fraternity has been denied. Every Englishman, every Englishwoman, can do something, and they who decline to work in the cause of the poor, fail not less in their duty to their country and to their God."

I am impelled to repeat that if this problem of poverty is left to legislation only, it will in the first instance be most probably long delayed, while the royal commission gathers evidence, and much time will be wasted in controversy and fencing over the report, with danger of its being ultimately shelved or rendered inoperative; other measures more suitable for legislation, and for that reason more practicable, will be deferred, and when the longed-for legislation does come, it will hardly, as the saying

goes, be worth the candle. Parliamentary effectiveness is well summed up in the ancient threadbare hexameter:

"Parturiunt montes nasceitur ridiculus mus."

Generally speaking, legislation is satisfactory only in the degree that a minimum of private and corporate interest is at stake, and as very large individual interests are in manifold ways concerned in any legislation for poor-maintenance by the State, it seems sanguine to expect very much directly from the present movement.

I wish, however, not to be understood as saying or meaning that the State has no responsibilities or power to do much towards the alleviation of such suffering as the press of England is now discussing; nor would I, if I knew it, say anything to check the beneficent warmth that has burst out toward the poverty-stricken. But it is surely well to remember that even the most excellent legislation, if not preceded by the necessary preparation for its application and reception, must largely become a failure. Legislation for poverty must more than any other be preceded by moral education and reform; otherwise even the best legislation would only remove poverty, as we remove fruit from a tree, leaving behind all that will produce another harvest of the same kind.

This fact was terribly and thoroughly illustrated in the great French Revolution. The watchword of the Assembly was, "Let no one bring up in opposition the rights of property. The right of property cannot be the right to starve fellow-citizens. The fruits of the earth, like the air, belong to all men."

Wages were determined by law, and bounties were created for the poor.

Blanqui on the futility of legislative measures only as a cure for poverty.

In speaking of this time the eminent French economist, Blanqui, in his *History of Political Economy* (Paris, 1860), says—

"All of wealth and felicity which philanthropic legislation could decree was decreed, but the people found that public wealth followed other laws than those of compulsion. Governments and individuals were forced to seek the elements of future greatness elsewhere than in mere legislative programmes;" they found "that the finest laws are insufficient to secure to each citizen a prosperous

condition, unless he co-operates with them in labour and morality."

Individual morality the only stable foundation of progress.

Laws, then, are secondary considerations, proper conditions and proper men being the first requisites. It may truly be said that ideal laws and institutions prematurely secured, *i.e.*, secured to people unfit to appreciate, enforce, and maintain them, result not only in swift and certain disasters, and in complications which have a long evil evolution, but force realization of the ideal thus sought for to recede into a more distant future than the processes of wise approach would have made necessary.

A scheme for the relief of poverty, which has within a few years taken great hold of the public mind, is that of land nationalization, *i.e.*, the transfer of land from individual to state ownership. (See p. 403.) It is of most ancient origin, having been practically applied by several of the great nations of antiquity. In modern times, during the French Revolution, it was tried with signal failure, when the Constituent Assembly of 1789 decided to put the whole burden of taxation on the land, except the property tax and custom duties.

Mr. Henry George's scheme of land nationalization as a cure for poverty.

However monstrous and absurd the present scheme of land nationalization may at first thought appear, it cannot be denied that its idea is noble; and further, it must be admitted that in theory this scheme, as advanced by Mr. Henry George—in essence the same as the schemes of Stuart Mill and Herbert Spencer—is unassailable; and were the elements and conditions of society ideal in themselves and ideally adjusted, it would be practicable and a blessing. But the practical solution of the problem—in this case as in so many others—is quite different from the theoretical one.

Neither time, conditions, nor people prepared for it.

If we investigate the scheme of land nationalization to see what are the possibilities for its becoming a blessing, we are faced at the outset with conditions most unfit and people most unripe for so profound an experiment.

No one who understands human character expects that the landed proprietors would yield up their lands merely because of a popular demand. Holders of the land, they hold the power, and, holding the power, can defy public opinion. A revolution, therefore, would be required, a

terrible and bloody revolution for dispossessing the landlord.

History has shown that it is not the truest, most unselfish, and wise men who lead revolutions, but rather those who can vie with and surpass the masses in inflamed counsel, in passion, in unreflecting hardihood, brutality, and crimes.

And, after a successful revolution, what then?

In the stead of experienced and reflecting, if oftimes hard and selfish, governments, we should find an ignorant, selfish, bigoted populace, frenzied and seething under the new tyrants, self-substituted for the former masters? And if the revolutionists had been unanimous in their vengeance upon the holders of land, where would this unanimity be when it came to the division of the spoils?

Violence, arrogance, greed, these are the motives which actuate and appeal to the masses in excited times, and would naturally be the characteristics of those who, having led the revolution, would next assume leadership in shaping the new order of things. And such certainly would not be the men most qualified to reconstitute humanity upon a basis of liberty, equality, and fraternity, or fitted to recast the whole mould of social life in a harmonious correspondence with these principles.

The wolf is not the fitting guardian of the sheepfold, nor is the coarse, brutal, successful revolutionist the right agent to manage the affairs of the helpless.

Again, such a reconstruction as is implied by land nationalization would require years and years of peace and tranquillity for its realization. It would require not only the wisest, firmest, and largest harmonious council of men, but also the most unselfish, the most consistently self-abnegating.

Where are these men to be found? Where is that great body of officials which in the development and management of this subversive experiment would need, and indeed could have, no check upon their activity, but that of their conscientiousness?

There is not enough individual unselfishness—cultivated and practical unselfishness—in the whole range of humanity covered by the word civilization to stock one county or state with enough religion, pure and undefiled, enough

of neighbourliness such as the Master taught, to make the land nationalization experiment other than dangerously revolutionary, and one whose worst effects would be suffered by its noblest upholders.

Where is the nation, the people, ready to accept all the risks, adversities, and innumerable calamities certain to accompany so stupendous a reconstruction of state and society, and go on waiting for an indefinite period, patiently for the outcome?

Until man has been regenerated, thorough-going schemes which involve a general levelling of social and economic inequalities and distinctions must be premature, and therefore the land nationalization as now proposed is out of the question; selfishness cannot be permanently trusted to guard against selfish and administer unselfish decrees. And the foundation of any individual or national regeneration must be laid in temperance.

The foundation of any individual or national regeneration must be laid in temperance.

This truth was inculcated and emphasized in the first plea made by the founder of the modern English Temperance movement, Mr. Joseph Livesey (*The Moral Reformer*, July 1, 1831), in these words: "*While drinking continues, poverty and vice will prevail, and until this is abandoned no regulations, no efforts, no authority under heaven, can raise the condition of the working classes.*"

Figures speak loudly and clearly on this point. In round numbers the total rents in the United Kingdom annually for farms is £60,000,000, and for houses, £70,000,000, and the cost of the drink traffic, as we saw in chap. x., far exceeds both these sums put together.

Suggestions as to what might be expected, supposing land nationalization should be accomplished without temperance reform.

And when we remember that the increase or decrease of this enormous drink bill has depended chiefly upon opportunity; that it has increased with the increase of prosperity and decreased with the decrease of prosperity, it seems very clear which reform, drink or land nationalization, is of paramount importance to the nation. For were land nationalization realized without temperance, the enormously widened opportunity for drink would soon show, in overflowing lists of poverty, insanity, and crime, how idle must all schemes of reform be which are not based, in the first instance, on the self-control of the individual, the very power which drink most fatally destroys.

Commenting on the appalling *Black List* of drink criminality occurring in England during the last week of 1883 and the first week of 1884, and summarized in the *Alliance News*, the *Grimsby News* says—

"Mr. Henry George is going up and down lecturing about 'Progress and Poverty,' and telling us that all the evils from which we suffer may be directly or indirectly traced to our land laws. *Surely, even Mr. George must see that no reform in land laws can do much for a nation that permits itself to be demoralized in this way by the traffic in strong drink.* We spend twice as much on drink as on rent, and the results are before us in this blackest of black lists. Talk of our people now being able to enjoy themselves 'rationally;' how can this be affirmed so long as in two short weeks we produce results like these in our towns and cities? Some one has said that so long as we drink bitter ale, our cities must send up their 'Bitter Cry,' and we believe this is the sober truth. The other day Mr. Chamberlain told the shipowners of this country that the present loss of life among our seamen could not be any longer allowed to go on, and that Parliament must take decided action. It is high time that some one said the same thing about the loss of life and character and prosperity through the drink traffic. The fact is, we are as a nation thoroughly demoralized by this bloated interest."

It is not easy to picture what the condition of this nation would be were the scheme of land nationalization to be accomplished without having been preceded by thorough temperance reform and that establishment of individual self-control, of sanity of mind and conscience inseparable from true temperance reform. The results likely to spring from those ample opportunities for unlimited supplies of drink, which the prosperity promised to the individual by the land nationalization scheme would afford, may be partly understood from a consideration of the scenes described in our papers and journals as occurring at Brighton beach, early in 1884. I quote the following from the *Evening Standard* (February 7, 1884):—

The *Evening Standard's* description of the scenes around the casks thrown

"The disgusting scenes which took place near Brighton, consequent upon some casks of beer and spirits from the ill-fated *Simla* being washed ashore, are enough to excite wonder as to how much a man is, even in the nineteenth

century, the superior of the beasts. It is a humiliating fact that there is a considerable portion of the population who, if given free access to intoxicants, will drink until they fall insensible. The crowd on the beach near Brighton fell upon the casks like wild beasts, numbers became intoxicated, many would have been drowned had not the coastguard dragged them beyond the reach of the advancing tide, several had the narrowest of escapes of death from the quantity of spirits they had swallowed, and one man actually died. It would seem, then, that it is from no consideration of decency, morality, or self-respect that a vast number of men are restrained from drinking to a point of intoxication, but that it is simply a question of expense. Given free liquor, and a mad debauch is indulged in. Such a fact as this seems to show that all our boasted advances, all the moral benefits of an extending education, all the conventional restraints of society are but surface deep, and that, given temptation—that is, liquor without having to pay for it—a disgusting carouse, which would disgrace the dwellers on a savage island, is the result." *

ashore from the *Simla*, on Brighton beach

Unfortunately, this record by no means stands alone. The *Weymouth and Portland Guardian*, in relating the scenes which followed upon the rescue of the cargo of the *Royal Adelaide*, wrecked in the winter of 1872, says: "Amongst the cargo of the *Royal Adelaide* were a large number of casks and bottles of spirits, and these, with the rest of the cargo, have been constantly coming ashore. At the time of the rescue of the passengers and crew there were a number of fishermen and others who exerted themselves nobly, worked most indefatigably, and deserved the highest praise. When, therefore, the wreckage began coming ashore, some spirit casks were broken open for the refreshment of the men. . . . What was our astonishment, on visiting the beach next morning, to find that not only did the wreck present a very melancholy aspect, but that there was a much more appalling and heart-sickening sight on the beach. . . . Men were found lying insensible beside a

Similar scenes following the rescue of the cargo of the wrecked *Royal Adelaide*.

* "Some so-called savage races set a better example. In Asuncion del Paraguay, in 1864, at a national fête, casks of wine and rum free to all comers, and amongst some thousands of *mestizos*, the few intoxicated were all English mechanics."

cask of spirits, or with flasks, bottles, and other vessels beneath them. In the vicinity of two or three casks there were two men lying head to head in this condition. The first fatal case was that of a lad employed as errand boy by a Weymouth grocer. Then we heard of a man named Smith, who was not expected to live another hour. On proceeding to the Ferry Bridge, we saw two men, one of whom was just brought from the beach insensible and died immediately, and the other of whom had been lying in a state of insensibility for upwards of three hours." And the *Temperance Record* (December 7, 1872), in an article on *Drinking Disasters and Shipwrecks*, says: "On the Irish coast, after the recent wreck of the *Kinsdale*, upwards of eighty men were lying in a state of stupor from the horrible effects of the drink extracted from a hundred and fifty barrels of ale that had been washed ashore."

How true are Richard Cobden's words, that "the temperance cause lies at the foundation of all social and political reform"!

Mr. Joseph Cowen on the paramount importance of sobriety.

As Mr. Joseph Cowen, M.P., said, when addressing a Blue Ribbon meeting at Newcastle-on-Tyne (January 19), "Neither franchises nor education nor social transformations will, of themselves, keep people sober; and *sobriety must* precede all moral, mental, and political reformation, if that reformation is to be real." *

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§ 94. There is a great lack of innocent and cheap amusement for the masses, and a fatal plenty of cheap amusements which are not innocent.

Dr. Channing on the reforming power of innocent pleasures and amusements.

"Innocent pleasure," says Dr. Channing (*op. cit.*), "has not been sufficiently insisted on. . . . A people should be guarded against temptation to unlawful pleasures by furnishing the means of innocent ones, such as produce a cheerful frame of mind, such as refresh instead of exhausting the system, such as recur frequently rather than continue long, such as send us back to our daily duties invigorated in body and mind. . . . Such as we can enjoy in the presence and society of respectable friends; such as are chastened with self-respect, and accompanied with the consciousness that life has a higher end than to be amused. . . . In every community there must be pleasures and relaxations and

* Report in *Good Templar's Watchword*, February 4, 1884.

means of agreeable excitement, and if innocent ones are not furnished, resort will be had to criminal. Man was made to enjoy as well as to labour, and the state of society should be adapted to this principle of human nature."

The power and province of the stage in this direction.

He speaks earnestly of the humanizing power of music,* its influence in homes and in public assemblies, to protect from the vice of drink and its kindred dissipations. Of the stage, he says, "The drama answers a high purpose when it places us in the presence of the most solemn and striking events of human history, and lays bare to us the human heart in its most powerful, appalling, and glorious workings."

The moral and refining influence of the Princess's Theatre under the management of Mr. Wilson Barrett.

A play of this kind, which occupied with an almost unexampled success the boards of the Princess's Theatre, London, for a year (1883), is the *Silver King*, a modern melodrama much in advance of recent popular works of this class. In this play, Mr. Wilson Barrett, probably the best living representative of the higher moral purposes and poetic possibilities of dramatic art, powerfully portrays the story of a man who drinks away his chances and prospects, the peace of his young wife, and the livelihood of his children, while he is yet young.

But he is brought to bay by the occurrence of a murder of which he is innocent, but which he supposes himself to have committed while in a drunken frenzy.

His dreadful situation and the shame and anguish he has brought upon his faithful wife and little ones completely sober him. Another clever turn in the plot, by which he is supposed to have perished in a burning car while fleeing from justice, gives him the opportunity to

* At the invitation of Mrs. Ellicott, a meeting of the Popular Ballad Concert Committee was held on Saturday, in the drawing-room of No. 35, Great Cumberland Place, Hyde Park. The Bishop of Gloucester and Bristol presided. Mrs. Ernest Hart, the honorary secretary, gave an account of the movement, and spoke of the successful formation of choral classes, in which the students were all young men and women working in shops and factories. Lord Brabazon, Sir Julius Benedict, Mr. Samuel Morley, M.P., Mr. Edmund Gurney, Mr. Horsfall, Dr. Norman Kerr, and others spoke in support of resolutions commending the objects of the society to general support. —*Temperance Record* (April, 1883). And the Saturday concerts in Exeter Hall, under the management of the National Temperance League, during this and last winter, have done much to wean the working people of London from the public-house.

repent and reform, of which he avails himself. In the scenes which portray the moral descent, the abrupt shock, and the moral recovery, there is a forceful illustration of the impossibility of worthy character not based on self-control and just regard to the rights of others; and there is preached a painfully impressive yet hopeful sermon on the curse of drink. The men who write, the artists who present such a play, do a distinct and signal service to humanity.

Another play called *Drink* (an adaptation by the late Mr. Charles Reade, of *L'Assommoir*), as presented at the Adelphi, London, with Charles Warner in the leading *rôle*, pictured the career of this vice in making total wreck of the mental, moral, and physical qualities of the hero in a manner almost too terrible to contemplate.

The lesson and the warning conveyed in this play would, perhaps, be least deterrent to those in sorest need of such admonition, the very hopelessness of the total impression being calculated rather to palsy than to spur the flagging will and limp moral impulse characteristic of the victims of this vice. But to those not yet come under its thrall, the spectacle is one to withhold them even from the verge of danger. That many witnesses of both these plays, sought merely for sensation, and carried nothing away with them beyond the satisfaction of the moment, or went from them to public-houses to drink in mockery or bravado, or to dull uncomfortable flutterings of conscience and reason, does not alter the fact that good lessons were taught, and most effectively illustrated, to a large majority capable of appreciating and remembering them.

But this question of healthy amusement, and elevating recreation does not stop with music and the drama. Human ingenuity has by no means exhausted itself; hardly can it be said to have as yet really taxed itself in the provision of amusements which inspire and recreate as well as please. In this direction most effective and blessed work against the evil of drink can and ought to be done.*

* Addressing Parliament in April, 1866, Mr. J. A. Roebuck, M.P., said, "You close the picture-galleries and museums on holidays and feast days, but you leave wide open the gin-shop and the beer-shop;

The late Duke of Albany on the duty of the rich in providing pleasure for the poor.

In his address to the schools at Liverpool (January 26, 1884), the late Duke of Albany said, "I shall be glad to say a few words here about the pleasures of the poor and the part that the rich may fitly take in providing them. For I believe that there are some persons—not careless or unkind persons only, but what may be called professional philanthropists—who hold that any attempt to provide the poor with music, flowers, and amusements, and the like, is merely foolish and sentimental, and that our duty to them lies only in the more serious region of education, religion, and so on. This is a point of view which I can never quite understand. *I cannot understand how a man can feel himself so separate from his fellow-creatures as to think that the pleasures which are quite worth his attention in his own case can become mere superfluous trivialities in the case of the poor men and women and children who have so few pleasures in all their lives.*"

The *Newcastle Chronicle* on the provision of amusements as a check on drink and crime.

"One of the most valuable of the reports on Intemperance," says the *Newcastle Chronicle* (November 23, 1880), "is that of nearly forty years ago of a House of Commons Committee, and it suggested the multiplication of free libraries, of free parks, of public museums, and of allied institutions; and though these may be costly to the nation, they are less costly and less burdensome to the ratepayer than that appalling amount of drunkenness which feeds crime and staggers the imagination to realize its horrible extent and effect. The beat of the wings of this destroying angel are now on the air, and, as in Egypt of old, we may have the result that there is not a house where there is not one as dead through this vice."

The great responsibility resting upon magistrates, physicians, and the clergy, in regard to the drink evil.

§ 95. Irrespective of state and society generally, there are several public bodies whose influence greatly affects this evil of drink. One such body consists of the local magistrates who issue the annual liquor licenses. This body is vested with great authority, and could accomplish much if imbued with an earnest patriotism and desire to do their part in diminishing the drink curse, and that the public would support them in efforts at reducing the number of licensed public-houses seems probable from the steadily

hating convivial meetings, you make the people unsocial drunkards. The gin-shop you love, because it increases your revenue."

increasing number of petitions from various counties to Parliament for local option or other means restricting the liquor trade, and from boroughs to magistrates for reduction of licenses.

Last year offered a conspicuous example of public sympathy with such measures. The magistrates of Rotherham, who refused to renew a number of off-licenses in that borough, were by an overwhelming majority supported in their decision in a meeting called to censure their action.

Then there are two great professional bodies upon whom we might almost say it ultimately depends whether this drink evil shall be utterly conquered, *i.e.*, the physicians and the clergy. The physician's prescription extends over the life of man from conception to the grave. If the physicians, as a body, persist in using alcoholic medicines, and as long as they do so, we may be able to check or considerably diminish it, but uproot it—never!

But the physicians, as we have seen, are rapidly becoming unanimous, both in opinion and practice, that alcohol under nearly all circumstances is hurtful to organic life, and it is a happy omen that a great many of the young students of medicine are total abstainers.

The responsibility of the Church in regard to the drink evil.

Just as the State is largely interested in the success of the liquor traffic because of the revenues it brings in, so also is the Church, materially speaking, even more concerned than the State in this traffic, because of contributions, tithes, educational and religious endowments, by dealers, and because of large ownership in public-house property.

In the days when this relation of things was first established, drink, as we know, was regarded as a legitimate and rational exhilaration of the senses; it was even called that "good creature of God," and coupled with His Word in the phrase "Beer and the Bible."

This notion, though not dissipated everywhere even yet,* has been vigorously pushed from its vantage in the centre of general acceptance by the broad shoulders of Progress, the knowledge now universal, whether welcome

* The *Alliance News* (November 24, 1883) reports Mr. H. E. Edwards as saying, in an address to a conference of licensed victuallers in Birmingham, November 7, "It used to be 'Beer and the Bible.' Now the Church says, 'Kick the beer-barrel away.' The beer-barrel, however, will stand as long as the Church."

or not, that alcohol is always poison to body and mind, and even especially to the latter.

Thus no alternative is left open to the Church but that of severing itself from all association with it, and it must be admitted that it has set bravely to work to do this.

The origin and growth of the Church of England temperance movement.

When the modern temperance movement first began to obtain hold of the public heart of England, the Church opposed it strenuously, and the bitterness against it may be said to have reached its height when the Evangelical Alliance of Edinburgh proposed, in 1847, as subjects for discussion—"How far the study of physical facts led to infidelity, and the connection betwixt teetotalism and infidelity." In 1862, some two hundred clergymen, headed by Canon Henry J. Ellison, initiated a church temperance movement, which, chiefly owing to the devotion, enthusiasm, tact, and capacity of Canon Ellison, has strengthened and spread until now it virtually embraces the largest portion of the Church of England. Of this movement, known as the Church of England Temperance Society, the Queen is patron, the Archbishop of Canterbury is president; all the bishops are enrolled under its banners, and Canon Ellison is still its chairman.

When called before the Lords' Committee in 1880, Canon Ellison said—

The earnest appeal, in the name of the Church of England Temperance Society, to the Lords' Committee of 1880, by Canon Henry J. Ellison, chairman of the society, for effective legislation in favour of temperance.

"I call your lordships' attention to the prayer of 14,000 clergy, from whom I believe the call for this committee originated. In their memorial to the bishops they ask this: 'We, the undersigned, clergy of the Church of England, venture respectfully to appeal to your lordships, as the only members of our order in Parliament, as such, most earnestly to support measures of the further restriction of the trade in intoxicating liquors in this country. We are convinced, most of us, from an intimate acquaintance with the people, extending over many years, that their condition can never be greatly improved, whether intellectually, physically, or religiously, so long as intemperance extensively prevails among them; and that intemperance will prevail so long as temptations to it abound on every side.' I cannot help saying that seeing that the excessive drinking of this country now is of such a wholesale character, and has its roots so very deeply in the habits of the population, you must attack it upon

every side. We believe it is like a great fortress—it must be attacked by investment, by mine, by sap, and by direct attack; but whatever other agencies may be used, the strong conviction of all those who, like myself, have been engaged in parochial temperance work for many years, is, that we can do very little without the assistance of the legislature; that so long (as this memorial says) as the temptations exist to the extent that they do exist now, we shall scarcely be able to make any impression upon the intemperance of the country."

Archbishop Benson's position regarding temperance reform.

When the present president was the Archbishop-Designate, he wrote from Truro (January 13, 1883), that he would "gladly and anxiously use any opportunities which the new position to which God has called him in the Church may give him to promote by legislation and other means the cause of temperance in this country." And now, in the beginning of the second year of his great responsibilities as the Primate of all England, he has preached a temperance gospel which will make the record of his archiepiscopate grow ever brighter in the widening light of man's advancement, as the years of reform and progress come gathering in with their blessings of enlightenment to the generations we work and hope for, but shall not see in the flesh. On the occasion of the annual meeting of the Church of England Temperance Society, held at Lambeth Palace, April 29, 1884, he said—

"All England is caring about the housing of the poor of London and the great towns, and must do its utmost to put the poor into decent dwellings. But then, ladies and gentlemen, what good will this have done if you have not taught the people to abstain from drink? To go in for housing the poor properly is a pressing duty, but with all the cleanliness and regulation that you introduce you know it will be in vain unless you can teach the people to keep themselves temperate. Do not let us be content with sweeping and garnishing the house. We have it upon our Lord's word what that comes to when it is done by itself. We must get a good spirit into the house if we wish the seven spirits not to come back—spirits of evil in sevenfold force, remember, and much more wicked than the first. It would be but sweeping and garnishing if we clean and clear and rebuild those houses, and do not teach the people

to be sober. . . . In no past time had the preachers of the gospel to contend with the demon of drink as they have in this age of ours. To accept the gospel, to live conscientiously under the precepts of the gospel, to be followers of Christ, to be built on the foundation of the apostles and prophets, and to drink! The two things cannot co-exist. We must drive out the spirit of drink by the Spirit of the gospel. Veiled or unveiled, drink must be driven out, or else we have what we may call whole countries and whole regions inaccessible to the word of truth." *

On the 19th of November, 1883, the Church of England Temperance Society celebrated its twenty-first anniversary, and the sermon delivered by Canon Farrar in Westminster Abbey, if indicating the real spirit of the Church on the subject of temperance, shows that this society has nobly understood its mission.

In calling for funds for the labours of the coming year, the society thus explains its purpose :—

The purposes and mission of the Church of England Temperance Society.

"To send into every diocese a resident and efficient organizing agent.

"To carry on the rescue work of the society by earnest, devoted police-court missionaries.

"To establish army, naval, workshop, servants', and cabmen's branches.

"To prosecute the work of the branch in connection with the missions to seamen society.

"To supply tracts, leaflets, and publications for general circulation.

"To send gratuitously to clubs, schools, institutions, and colleges, copies of the weekly *Chronicle*.

"To assist in providing coffee and cocoa stalls and barrows, ninety of which have been sent out.

"To aid in the introduction of temperance teaching into colleges and schools.

"To promote wise and remedial legislation as embodied in the society's proposed bill.

"To form diocesan, parochial, and juvenile branch societies.

"To send out fit and competent deputations (clerical

* *Temperance Record*, May 1, 1884.

and lay), and generally to extend the objects of the society by moral, social, and educational means."

At the society's breakfast the next morning (November 20, 1883), in St. James's Hall, the Bishop of Carlisle, in alluding to the activity of the Church in the directions of relief and education, said—

The Bishop of Carlisle on the success of the labours of this society (St. James's Hall, November 20, 1883).

"It would be in vain to attempt an enumeration of all the works now going on quietly in parishes under the direction of the clergy—works of which the world knows nothing beyond the limits of the parish. I will mention the works going on in one metropolitan parish, the report of which lies before me. (1) The whole machinery of confirmation, including classes in which young and old are prepared; (2) instruction classes, in which the Scriptures are taught and good books circulated; (3) a provident club; (4) working classes, in which the poor are taught habits of industry; (5) parochial mission; (6) a society for aid during illness; (7) a society for visiting the poor and aiding their distress; (8) a society for aiding church singing; (9) guilds for men and old and young women, and promoting their religious welfare; (10) mothers' meetings for the study of good books; (11) dispensaries and aids for the sick; (12) a society for district visitors and their meetings; (13) meetings for school teachers and Sunday school teachers; (14) ragged and night schools, and their support; (15) soup kitchen for the poor; (16) societies for waifs and strays, or children deserted by their parents; (17) working men's benefit societies; (18) multitudinous Christian charities supported by endowment or subscription; (19) needlework society; (20) penny banks; (21) young men's friendly society for promoting wholesome amusement for Sunday evenings; (22) juvenile guild—a branch of the same; (23) a confraternity society for communicants; (24) young men's friendly society; (25) a branch of the C. E. T. S.; (26, a society in aid of the propagation of the gospel. Such are the works going on quietly and unostentatiously in connection with one Church." *

Canon Basil Wilberforce in denunciation of

On every hand clergymen with the courage to speak and act in accordance with their convictions are coming to the front. Writing to the late Archbishop Tait of Canter-

* *Church of England Temperance Chronicle*, November 24, 1883.

bury, in July, 1882, Canon Basil Wilberforce denounced the holding by the Church of property in public-houses. Since then, in various places, public-houses belonging to the Church have been closed.

Church proprietorship in public-houses.

Says the *Temperance Record* (November 8, 1883)—

"A public-house of rather a low class, the Golden Lion, in Gravel Lane, Southwark, has lately been vacated by its tenant, and the Ecclesiastical Commissioners, to whom the premises belong, in their desire to minimize their interest in public-house property, have let it *for half the rent offered by a firm of brewers* to Mr. Fegan, of the Boys' Home, Southwark, who proposes to open it as a place of recreation for working boys in this densely crowded district; so that it will become a boon instead of a pest to the neighbourhood. The Golden Lion adjoins Mr. Fegan's Home, and is now being rapidly prepared for its new career."

Practical expression by the Ecclesiastical Commissioners of their interest in the promotion of temperance and education (*Temperance Record*, November 8, 1883).

The Dean of Westminster recently told me that he had closed and pulled down a public-house in Westminster.

The most important and most difficult question which confronts the Church is that of the use of wine in the Lord's Supper. Numbers of clergymen have, in obedience to their convictions, introduced into this rite in their own churches the use of non-intoxicating instead of intoxicating wine. I have been told that the Bishop of London grants absolute freedom to the clergy of his diocese as to the character of the wine used in the Communion.

The question of the use of wine in the Lord's Supper.

In the Convocations of Canterbury last July (1883) the subject came up for decision.

An appeal was made from the Lower House "praying" that the Upper House should "take such measures as they may deem best for checking such innovation" (of using unfermented wine in the Lord's Supper). In the answer we read, "This House is of opinion that agitation of any question on so sacred a subject is much to be deprecated, as tending to distress many religious persons, to unsettle the weak, and even to lead to schism; that it is quite unnecessary to raise the question referred to in the gravamen, inasmuch as the Church, though always insisting on the use of wine in the Holy Communion, has never prescribed the strength or weakness of the wine to be used, and, consequently, it is always possible to deal

The decision of the Upper House in the Convocations of Canterbury, July, 1883.

with even extreme cases without departing from the custom observed by the Church; and that it is, therefore, most convenient that the clergy should conform to ancient and unbroken usage, and should discountenance all attempts to deviate from it" (*Chronicle of Convocation*, 1883).*

Thus the representative body of the Church of England, though deprecating agitation on the subject of the use of unfermented wine, does not positively condemn it. This is a great step, because this issue, once having become debatable, there can be no doubt as to its ultimate settlement. Both intoxicating and unfermented wines were used by the Jews in the time of Christ, but we possess no knowledge whether the wine used by Jesus in the last supper was intoxicating or unfermented. The best Hebrew authorities, living and past, either regard intoxicating or unfermented wines as equally lawful in Passover, or lean in the direction of the unfermented, inasmuch as fermented (leavened) food was forbidden at Passover. Therefore either complete liberty as to the use of intoxicating or unfermented wines at the Lord's Supper must be granted, or, to be consistent, the use of wine at all must be abandoned.

Modern discoveries—as to the nature and effects of alcohol—leave no alternative to the conscientious clergyman.

But aside from the question of the nature of the wine used by Jesus, modern discoveries as to the nature and effects of alcohol leave but one alternative in the use of wine to any conscientious clergyman.

Jesus, when He took the cup and asked His disciples to drink in remembrance of Him, was the same Jesus who died on the cross that He might save sinners; was the same Nazarene who, in His own prayer, teaches His disciples, "*Lead us not into temptation*," who, in His agony in the garden, begged His disciples to *watch and pray against temptation;* was the same Jesus who sternly told His disciples that it was *better for a man to pluck out his eye or cut off his hand rather than that his whole body should be cast into hell;* was the same who said, "*Woe unto the world because of offences, for it must needs be that offences come, but woe to that man by whom the offence cometh.*"

Would He who spake these things desire the use of intoxicating drink in sacramental commemoration of Him?

A writer in the *Church Quarterly Review* early last

* See chapter xi., pp. 301, 302.

year asserts that the belief in the efficacy of the sacrament will protect the believer from harm. What authority is there for such an assertion? Has any promise been given anywhere in the Bible to that effect? (And what imputation on the character of this sacred rite lies in the mere suggestion that special divine intervention is essential to the safety of one participating in it!) Certainly, the saddest facts of almost daily experience disprove such assertions.

To the reformed drunkard, alcohol is like the taste of blood to the tamed lion or tiger. What shall be done for those innumerable ones, who, knowing their inherited predisposition to drink, can keep away from the public-house only so long as they do not approach the communion table?

The Rev. Moses Stuart on total abstinence as a qualification for Church membership.

As long ago as 1826, the Rev. Moses Stuart (Prof. of Theology in Andover College, Mass., U.S.A.), in his *Wines and Strong Drinks of the Ancient Hebrews*, arrived at the conclusion that "it is a matter of expediency and duty for our churches not to admit members in the future except on the ground of total abstinence from the use of intoxicating liquors and from all traffic in them."

The Rev. B. Parsons on the constant risks incurred by attendance at the Lord's table.

The Rev. B. Parsons, in his *Anti-Bacchus* (London, 1840), says, "We ought to substitute an innocent beverage for the poison which is now used at the Lord's table. . . . Not long ago a reformed drunkard, and apparently a converted man, approached the Lord's table of a church which I could name; mark the result. The wine tasted at the sacred Communion revived the old passion, and he, who seemed a saint, was corrupted by the sacramental wine, went home, got drunk, and died a drunkard."

Mr. E. C. Delavan on the use of wine in the Communion.

Mr. E. C. Delavan, in his *Temperance Essays* (New York, 1866), in *Letter* 11, *Relative to Communion Wine*, written in 1841, says, "Let us illustrate the sacrament of the Supper by the water used in baptism. What Christian parent would be willing to have such substances as compose the liquor generally used at the Supper mingled with the water with which his infant child is baptized? Pure water is the only proper symbol of baptism. The pure blood of the grape, for the Supper."

Archdeacon Jeffreys, of Bombay, on the same

In the *Concordance of Scripture and Science* (London, 1847), Mr. Peter Burne, in speaking of the use of intoxicants at the Communion, quotes the following remarks

made by Archdeacon Jeffreys, of Bombay :—" We agree to abstain from all intoxicating drinks, except in a religious ordinance, the plain interpretation of which is, that such mischievous liquors are too bad to be used anywhere but at the Lord's Supper. . . . So long as intoxicating wine is dealt round at the communion table, the reclaimed drunkard (as well as anybody in danger of becoming one —who is sure?) has of right no business there, for the sacred place is as morally unfit for him as the taproom and the gin palace . . . It is a mockery of God to pray for deliverance from evil and temptation while abandoning oneself to it with open eyes."

The Lord Bishop of Exeter on the same.

The Lord Bishop of Exeter, who, in the Upper House of Convocations, seconded the above-quoted decision as to the use of wine in the Holy Eucharist, in an address at the Guildhall (October 17, 1883), said, "The temptations of the flesh are generally very strong, if they are near, and when such temptations were near to some men, their strength seemed to desert them altogether. The only thing they could do was to get away and keep away from such temptations altogether. Drunkards who had fallen under this particular temptation of the flesh must be, if they were to recover themselves at all, total abstainers."

Does this mean that the very ones who stand in greatest need of the consolation and help of the most sacred religious rites shall be shut out of it? Or does it mean that the form of the rite must be modified, to meet the need of those for whom it was first instituted? *

Canon Wilberforce on the same.

Canon Wilberforce answers these questions. Replying

* Rev. James Smith, in his work on *The Temperance Reformation and its claims upon the Christian Church* (London, 1875), proposes :—

"The general adoption of the pure juice of the grape," and thinks that it would be well "if the churches could agree to adopt it both as appropriate in itself and as a protest against the intemperance that prevails."

It the use of unfermented grape juice could gradually replace the use of fermented and distilled liquors, not as a beverage but as an occasional tonic, it would possibly, more than any other purely physical agent, in conjunction with water, counteract and overcome the vitiated taste created by our long use of alcoholic drinks.

There is, as far as I know, but one establishment in England where genuine unfermented wine is to be procured, and that is at *Frank Wright's manufactory in South Kensington*. It is claimed that some two thousand churches now use it.

to the Rev. C. R. Chase, he remarked "that he had known terribly real and undoubted instances in which men, by partaking of wine from the sacramental cup, had been started on their downward course to a dishonoured grave. If it came to be a question whether the wine or the Christian should be banished from the table of the Lord, he could not hesitate a moment as to which should go. From the sacramental table over which he had more immediate control intoxicating wine had now long been banished, and in this he believed they were carrying out the true spirit and meaning of the sacrament. If it was not a spiritual communion with the blessed Lord, beyond and above anything the mere elements could convey, then it failed in the great purpose for which it was ordained." *

Various important considerations involved in this question.

Will any one say that it is by Christ's command that the Communion is used as the bulwark and the recruiting office of the public-house? "If good people can take intoxicating drink at the communion table on Sunday," says the liquor seller, and all those who want a good excuse for drinking, "there can be no great harm in a glass at home, or even at the public-house."

Surely this consideration alone ought to suffice to banish alcoholic drink from the sacrament.

No doubt many clergymen and many Christians shrink with sincere piety from making any change in the sacramental rite, regarding it to have been taught and founded, as now observed, by the Master Himself; but will not all personal shrinking, all minor scruples give way to the larger and holier shrinking which must accompany our knowledge, that alcohol is now proved to be a poison which ruins body and soul? It cannot be inappropriate to say "minor scruples," since we are authoritatively assured that the Church "has never prescribed the strength or weakness of the wine to be used."

If the Church does insist upon the custom of using alcoholic drink in the Communion, many, if not all, conscientious persons may be driven to abstain from the Lord's Supper, if not on their own account, lest offence come through them to others.

Is it not better that "ancient and unbroken usage" in this respect should be deviated from, in order that the

* *League Journal*, November 3, 1883.

ancient and unbroken usage of sin may be overcome, in the rite that remembers Him?

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§ 96. The principal part for society to take in the battle against drink is the abolition of the drink customs.

Dr. Channing on drink customs.

"In proportion as ardent spirits are banished from our houses, our tables, our hospitalities," said Dr. Channing (*op. cit.*), "in the proportion that those who have influence and authority in the community abstain themselves and lead their dependents to abstain from their use, the temptations to drink must disappear. It is objected, I know, that if we give up what others will abuse, we must give up everything, because there is nothing which men will not abuse. I grant that it is not easy to define the limits at which concessions ought to stop. Were we called upon to relinquish an important comfort of life because others were perverting it into an instrument of crime and woe, we should be bound to pause and deliberate before we acted.

"But no such plea can be set up in the case before us. Ardent spirits are not an important comfort and in no degree a necessity. They give no strength, they contribute nothing to help. They neither aid men to bear the burden nor discharge the duties of life."

The origin and age of the drink customs.

The drink customs are very difficult to eradicate. They have grown through the ages and become ingrained with the growth of national and social life and institutions, and in no country have they struck root so deeply as in England.

History relates that the Danish conquerors punished with death any native who drank in their presence without permission. Some writers claim that the custom of pledging health originated at that time. Strutt, in his *Manners and Customs of Ancient Britain*, says—

Strutt on the same.

"The meaning of a pledge was a security for the safety of the individual drinking, who all the time was exposed to the attack of an enemy by his arm being raised to his head, his face partly covered, and his body unprotected. When, therefore, a person was about to drink, he asked the guest next to him if he would pledge him, and being answered in the affirmative, the sword or dagger was raised to protect him while drinking."

And this custom, sign of England's degradation under

the heel of her conqueror, not only was not dropped with the slavery that imposed it, but outlived it, and by some mysterious process got transposed into such a sign of glorification at both official and private banquets, that to omit it has until very recently been considered almost tantamount to treason to the throne and to the altar of personal friendship!

There are many drink customs. At the Temperance Congress of 1862, a paper was issued enumerating four hundred drink laws and usages;* but the principal and universally observed drink custom is that of drinking to the health and success of persons and undertakings.

In chapter xi. it was shown how drinking originated at Court, and afterwards became the vice of the masses; and how much might be hoped from the initiative of the Court in temperance reform.

It would seem as if this responsibility was becoming felt at Court. In his address to the York Licensed Victuallers' Association, February 8, 1881, the Lord Mayor of York said he had accepted the invitation of the association with much pleasure, especially when they had been so courteous as to give him the liberty to refresh himself with whatever beverage he thought proper. It reminded him of an occasion when some one dining at her Majesty's table was drinking water, and it was pointed out to her Majesty, who replied, "There is no compulsion at my table."

The Queen's opposition to the social bondage of the drink customs; her insight into the national dangers from drink, and sympathy with temperance reform.

At the great Scottish Temperance Convention held in Glasgow on the 28th of April, 1884, Mr. Robert Rae, the secretary of the National Temperance League, said—

"It often happens that the Queen dines many people, and I am glad to state that a good number of the guests are teetotalers. Especially is this the case amongst her chaplains; and to show that the temperance movement is spreading in the Queen's establishment, I may say that

* A great number of these are mentioned with the special penalties to be inflicted on those who break them. As recently as last June (1883) the papers furnish an account of how a labourer named Ellis, an abstainer, was maltreated because he refused to stand treat. "A pair of clamps—pieces of wood fastened by a screw in the middle—were placed on his neck, and he was held till signs of suffocation were apparent. He was then released, but he was in such a condition that he had to be taken to the infirmary, where he remains."

the last two domestic chaplains who were appointed were total abstainers. It is a significant fact that nearly all the new bishops recently created in the Church of England have been total abstainers."

In her book, *My Holidays in the Highlands*, 1862–1882 (London, 1884), the Queen identifies herself in a very simple and effective manner with the cause of temperance reform. In referring to the work of her "dear and valued friend," the late Dr. Norman Macleod, she mentions with especial interest his sermon on the 2nd of October, 1870, in these words :—

"Dr. Macleod gave us such a splendid sermon on the war, and without mentioning France he said enough to make every one understand what was meant, when he pointed out how God would punish wickedness, and vanity, and sensuality; and the chapters he read from Isaiah xxviii.,* and from Ezekiel, Amos, and one of the Psalms, were really quite wonderful for the way in which they seemed to describe France."

Such expressions are a touching revelation of her Majesty's anxiety concerning the condition of things in her own realm, which has been practically evinced also by her becoming patron of the Church of England Temperance Society.

* "1. Woe to the crown of pride, to the drunkards of Ephraim, whose glorious beauty is a fading flower, which are on the head of the fat valleys of them that are overcome with wine.

"2. Behold, the Lord hath a mighty and strong one, which as a tempest of hail and a destroying storm, as a food of mighty waters overflowing, shall cast down to the earth with the hand.

"3. The crown of pride, the drunkards of Ephraim, shall be trodden under feet.

"7. But they also have erred through wine, and through strong drink are out of the way; the priest and the prophet have erred through strong drink, they are swallowed up of wine, they are out of the way through strong drink; they err in vision, they stumble through judgment.

"15. Because ye have said, We have made a covenant with death, and with hell are we at agreement; when the overflowing scourge shall pass through, it shall not come unto us: for we have made lies our refuge, and under falsehood have we hid ourselves.

"16. Therefore, thus saith the Lord God, . . .

"17. Judgment also will I lay to the line, and righteousness to the plummet: and the hail shall sweep away the refuge of lies, and the waters shall overflow the hiding-place."—Isaiah xxviii.

Thus it is seen that drink customs are no longer a matter of rigorous observance at court. The Queen herself has done the temperance cause the inestimable service of removing from the relations between host and guests, from social etiquette and good manners, the burdens of an irksome obligation, in the exchange of social amenities; and society is no longer shielded under the pretence of loyalty nor by the code of good breeding, in using her formidable weapons of ridicule and satire against those who seek, by appropriate means, to liberate themselves and others from the evils of drink.

The interest manifested by the Prince of Wales in temperance reform.

From a paper on *Freemasonry and Temperance* in the *Western Morning News*, the *Good Templar's Watchword* (January 28, 1884) quotes the following, showing the interest felt by the Prince of Wales in temperance reform:—

"Lodges can choose as to when and where members shall take refreshments, and as to what shall be included or excluded in connection with those refreshments. Acting upon that privilege, a movement is progressing in the order for lodge to decree that no intoxicating liquors shall at any time be permitted to be introduced at their refreshment boards; and, in some instances, new lodges are being formed with a clause in their bye-laws to this effect. Such an one, on a large scale, was opened at Manchester in the beginning of last year, and now the three towns are about to follow the same course. A suggestion was made a few months since among a few of the temperance brethren that it would be worth while to ascertain if such a lodge could not be established there, and on the question being put to the test, they were astonished at the popularity of the movement. With scarce an effort over sixty masons, nearly all of several years' standing, and embracing numerous P.M.'s and provincial officers, came forward at once as being desirous to become members of the new lodge. The proposition was then submitted to the heads of the order in the three towns, when the whole of them, with, it is believed, only one exception, signed a recommendation that a warrant for the new lodge should be granted. The Provincial Grand Master added his recommendation, and now the information has been received that the Prince of Wales, M.W. Grand Master, has been pleased to grant a warrant

for the holding of the said lodge under title of 'The St. George, No. 2025.' The membership is not confined to pledged teetotalers, nor will any attempt be made to so limit it. At all its banquets and entertainments every endeavour will be made to make the social gatherings enjoyable, but without the aid of alcohol. The three principal officers named in the warrant will be provincial officers, who are total abstainers—the W.M. for twenty-eight years, the S.W. for eighteen years, and the J.W. a life-long abstainer. There were nearly fifty petitioners for the new lodge, and many of the brethren are active 'blue ribbonists' and total abstainers."

The interest shown by the late Duke of Albany in the condition of the poor and in temperance reform.

At the distribution of prizes to the children of elementary schools by the Liverpool Council of Education (January 26, 1884), the late Duke of Albany* presiding, in speaking of improved cookery and coffee taverns, said—

"I should like to see a rapid lift given to the standard of cleanliness and care in the preparation of food in the poorest homes. I should like to see meals which are now mere scrambles become points of real family union—occasions for showing forethought and kindliness and self-respect. And where circumstances make this too difficult, I should like to see the family enjoying a cheap and decent meal together at the coffee tavern, instead of the father being at the alehouse and the wife and children with a crust at home. And I think that if we can train the children early to see the difference between what dirt and waste and selfishness make of a poor man's dinner, and what thrift and care and cleanliness can make of it at the same cost, we shall be civilizing them almost more directly than by our sums or our grammar, and shall be taking in flank our great enemy, drink—drink, the only terrible enemy whom England has to fear."†

Public bodies also are beginning to manifest a sense of responsibility in this direction.

The practi-

At the annual dinner of the Metropolitan Board of

* The late Duke of Albany was for nine years patron of the Oxford Diocesan Branch and a president of the Church of England Temperance Society.—*Annual Report Church of England Temperance Society*, 1884.

† The Duke of Connaught ascribes his good health during the Egyptian campaign to his abstention from the use of intoxicating liquor.

Works, April, 1883, the imperative toasts of loyalty, etc., were drunk in water.

cal inauguration of drinking toasts in water by the Metropolitan Board of Works, April, 1883.

At the inauguration of the Society for the Study and Cure of Inebriety (Rooms of the Medical Society of London, April 25, 1884), at which about one hundred physicians were present, the toasts were drunk in unfermented wines.

Toasts drunk in unfermented wines at the inauguration luncheon of the Society, for the Study and Cure of Inebriety, April 25, 1884.

In this struggle against the public drink customs, the remembrance of their inherent absurdities ought to weigh greatly with intelligent people.

"It is not usual," says the German Prince Puckler (according to Dr. Grindrod, *op. cit.*), "to take wine during dinner in England without drinking to another person. When you raise your glass, you look fixedly at the one with whom you are drinking, bow your head, and then drink with great gravity. Certainly many customs of the South Sea Islanders, which strike us the most, are less ludicrous. It is esteemed a civility to challenge anybody in this way to drink; a messenger is often sent from one end of the table to the other to announce to B that A wishes to take wine with him, whereupon each, and sometimes with considerable trouble, catches the other's eye, and goes through the ceremony of the prescribed nod with great formality, looking at the moment very like a Chinese mandarin."

The German Prince Puckler on the absurdities of the drink customs.

"Never perhaps," says the Rev. B. Parsons (*op. cit.*), "was there a more irrational or absurd practice. As though we could not express our loyalty to the Queen, our good wishes to the bishops, clergy, and Church, or our affection to our friends and country, without swallowing a portion of poison! In thousands of instances, love of drink, not love to the monarch, is the origin of the toast, and those who are most noisy with their 'three times three' are swallowing their money, their morality, their loyalty and patriotism all at the same time. Some of these would *curse* God and the king for a pot of beer, and others ruined by drinking and toasting are ready for anything that would mend their affairs and get them some drink. The *most* disloyal and disaffected of our countrymen are those who have beggared themselves by drinking. It is impossible to tell the crime and misery which drinking of toasts has originated. Louis XIV. of France is said

The Rev. B. Parsons on the same.

to have foreseen the consequences, and to have prohibited the drinking of toasts."

A working man on the same.

In 1864, *A Working Man* published a trenchant little pamphlet, entitled *Philosophy of Toasts and Health Drinking*, from which I quote the following:—

"The toast is applied to the health of the living, and to the memory of the dead; to things far and near, past, present, and to come; through every department in all the affairs of life, and prevails among all classes of society, from the peer who toasts the Queen's health to the beggar who drinks the publican's health with his last penny. . . . The simple 'Luck!' of the poor gives way to the toast in society. A gentleman stands on his feet and expatiates in glowing terms, it may be on the virtues of the Queen, or some other great one present or absent, living or dead, and, whatever the toast may be, the speaker is sure to conclude his speech by requiring the company to empty their glasses for the success, health, or happiness of the subject of the toast. If there existed any connection between the real and the possible, between that which the company desires to honour or promote, so that the one could be regarded as the cause and the other as the effect, or the one the means and the other the end, then there might be some show in reason for the practice, and so far a palliation of the evils resulting from excess. . . . But where is the connection between health and prosperity and the act of drinking strong liquor or wine? Suppose a doctor took it into his head some fine morning, that instead of going out to visit his patients as usual, he would swallow pills to their health in the laboratory, and that he did so. He swallowed a pill to the health of each in succession, according to the order of his visits. 'Well, here goes a pill for the health of the man with the broken arm,' etc. Twenty-two pills in all! What would be the state of the doctor? what that of the patients? and what would be said of his actions?"

Let us substitute for toasting with wine some kind of spice, salt or pepper, and the absurdity of toasting becomes as absurd in appearance as it is in fact.

The Rev. James Smith on the same.

"The habit of toast-drinking, whether public or private," says the Rev. James Smith,* "is one which only

* *Temperance Reformation and its claims upon the Christian Church* (London, 1875).

long-established usage and familiarity enable us to regard as otherwise than highly ridiculous, and in every way unworthy of an enlightened and civilized community. Does anybody really imagine that the Queen enjoys better health, that the army and navy are in a more flourishing condition, that the Church, the Press, or the Government do their work more efficiently because they are so frequently and enthusiastically 'toasted'? Is there any rational connection between the good wishes entertained and the mode in which they receive expression? If any one really supposed that the person or subject in hand would prosper all the better in proportion to the frequency and enthusiasm of the toasting and the quantity of liquor consumed in the process, there would be some excuse for his indulging in the practice, whatever might be thought of his intellectual development! There was more reason, if less civilization, in the action of the African mentioned by Dr. Livingstone, who emptied his snuff-box at the foot of a tree, in order to ensure the success of his comrades, who were engaged in an elephant hunt! He, poor savage! performed this ceremony ignorantly and superstitiously, believing that it would have some real efficacy; while we, enlightened Christians! perform an analogous heathenish ceremony, knowing it to be meaningless and vain. If health-drinking were confined to the health-giving beverage, water, the folly of the custom would speedily become apparent to all, and the practice would soon be numbered among the antiquarian relics of a barbarous age."

There are many *trade usages* still extensively prevalent which tend to create and foster a love for strong drink, and are, consequently, instrumental in promoting intemperance among those concerned. Among such customs may be mentioned the *payment of wages at public-houses*, whereby many are brought into temptation, the young and inexperienced become the prey of confirmed inebriates, and those who may be desirous to reform have difficulties thrown in the way of their doing so.

Success of Mr. Samuel Morley, M.P., and of Earls Shaftesbury and Stanhope in securing

Thanks to the efforts of Mr. Samuel Morley, M.P., in the Commons, and of the Earls Stanhope and Shaftesbury in the Lords, this mischievous practice was abolished in the spring session of 1883.

Besides the drinking customs and usages, there are the

the abolition of the custom of the payment of wages at public-houses.

social drinking habits to combat. The Rev. William Moister, in his book, *The Evil and the Remedy* (London, 1877), well describes their variety and prevalence in the following words :—

The Rev. William Moister on the variety and prevalence of social drinking habits.

"Intoxicating drink, in some form or other, has at length come to be used on a variety of occasions, the very mention of which is somewhat startling, when we consider its character and tendency. It is frequently given to working men and others by employers of labour, to stimulate them to greater exertion in the discharge of their respective duties. It is introduced at almost all public and festive gatherings; at marriages, baptisms, and funerals; at sales, contracts, and friendly meetings, and, in many otherwise well-regulated families, spirits, wine, ale, or porter are placed on the table every day as common beverage at meal-times as well as on other occasions. In many localities the hospitality of the host is measured by the frequency and earnestness with which he presses the intoxicating cup on the attention of his guests. As soon as you arrive at the dwelling of your friend, the all-important question is put, 'What will you take to drink?' If you are weary with your journey, you are urged to take a glass of wine, beer, or other stimulating drink to refresh you; if you are cold, it is recommended to warm you; and if you are warm, it is represented as a cooling beverage. By some it is taken before dinner to create an appetite: at meals as a diluent of food; afterwards to aid digestion; and immediately before going to bed to induce sleep.

"In fact, alcoholic liquor, in some form, has come to be regarded by many as a common necessary of life; and as such it is procured and kept in store for ordinary use, the same as bread, butter, meat, and other provisions. If a journey has to be taken, as a matter of course, the familiar bottle is replenished with the favourite liquid and placed in the basket or pocket with other refreshments. You cannot travel far by rail or otherwise, without being painfully reminded of the degeneracy of our race, and of the fearful extent to which the drinking customs of our country prevail among all classes."

It is, of course, necessary, in order to make headway against these most widely observed and popular drink customs and habits, to inspire a healthy public sentiment,

in which their continuance shall be clearly seen to be both ridiculous and wrong.

Dr. J. G. Holland on the duty of society in this respect.

In his paper on *The Wine Question of Society* (*Scribner's Monthly*, August, 1872), the late Dr. J. G. Holland proposed a method for arousing such healthy public sentiment in these words: "Society bids us furnish wines at our feasts, and we furnish them just as generously as if we did not know that a certain percentage of all the men who drink it will die miserable drunkards, and will inflict pitiful sufferings on those who are closely associated with them. . . . What we need is a declaration of independence. There are a great many good men and women who lament the drinking habits of society most sincerely. Let these all declare that they will minister no longer at the altar of the great destroyer. Let them declare that the indiscriminate offer of wine at dinners and social assemblies is not only criminal but vulgar, as it undoubtedly is. Let them declare, for the sake of the young, the weak, and vicious—for the sake of personal character, and family peace, and social purity, and national strength, that they will discard wine from their feasts from this time forth and for ever, and the work will be done. . . . If the men and women of good society wish to have less drinking to excess, let them stop drinking moderately. If they are not willing to break off the indulgence of a feeble appetite for the sake of doing a great good to a great many people, how can they expect a poor broken-down wretch to deny an appetite that is stronger than the love of wife and children, and even life itself?"

Perhaps no moral cause ever came up for general consideration more requiring the uncompromising action that is here suggested than the cause of temperance, or more in need of the conciliating influence of perfect good breeding and inexhaustible patience on the part of its upholders, or one more endangered by irritating, unenlightened prejudiced opinion, or having more to hope from the right exercise of enlightened and noble public sentiment.*

Dr. Chapin on the responsibility of wealth for

§ 97. In his Temperance Address at Boston (1846), the Rev. Dr. Chapin exclaimed—

"Who stand between the temperance movement and

* See chapter xi. pp. 300, 301.

the prevalence of the drink evil.

its triumph? I answer, the wealthy, the fashionable, the influential. The rum power in our country is backed up by the money power. Mammon and alcohol go hand in hand." This was true then. How much more true it is to-day, and truer still of Great Britain than of the United States?

Indeed, the whole wealth of England is in so comparatively few hands that practically the magnates, by refusing the renewal of leases for public-houses on their estates, could, in a very few years, establish an almost complete prohibition, and, therefore, the wealth of this country must be largely responsible for the fate of the English temperance movement. But there are hopeful signs that this responsibility is being rightly felt.

Lord Claud Hamilton's statement in St. James's Hall (May 19, 1870), about a prohibition estate in Tyrone.

At St. James's Hall (May 19, 1870), Lord Claud Hamilton, ex-M.P., said about a prohibition estate of some 10,000 population in County Tyrone, Ireland, "the result has been that whereas those high-roads were, in former times, constantly the scenes of strife and drunkenness, necessitating the presence of a very considerable number of police to be located in the district, at present there is not a single policeman in the district. The poor rates are half what they were before, and all the police and magistrates testify to the great absence of crime." Mr. Richardson's flax-mills at Bessbrook, on the Belfast and Dublin railway, near Newry, are well known.

The evidence of Mr. T. W. Russell on the prohibition estate of Bessbrook.

I quote here at length from the report of the evidence given by Mr. T. W. Russell, of Dublin, and Mr. J. G. Richardson, the proprietor of Bessbrook, before the Lords' Committee on Intemperance (1880), as given in the *Alliance News* (May 15, 1880). Says Mr. Russell, "Bessbrook was got possession of by Mr. John Grubb Richardson in 1847. It was just a hamlet of a few small houses, and now he has built a very fine town there; there is no such town in Ireland, so far as sanitary arrangements are concerned. He has made it a rule that he will let no house for the sale of drink in any form, and, as a matter of fact, there has never been a drop of drink sold in Bessbrook since Mr. Richardson got possession of it. It is situated in the county of Armagh, three miles from Newry. Newry is a town of 14,000 inhabitants. Mr. Richardson has a large mill at Bessbrook, which employs the whole of the people.

There has never been a police-barrack, nor a policeman, nor a pawn-office in Bessbrook. I have a letter from the inspector of police at Newry, stating that there were only three cases of drunkenness from Bessbrook during the eighteen months previous to his writing, and I am very much of opinion that those were cases of farmers going home from Newry and passing through Bessbrook on their way; but there everything is peace, prosperity, and comfort. It was submitted to the vote by ballot of the householders two years ago as a test, whether they would prefer a public-house being admitted or not, and the vote was nine to one against the introduction of public-houses. There is a district, in county Tyrone, covering sixty-one and a half square miles; it adjoins the town of Dungannon, and goes near to Cookstown, covering three great public roads. I lived in the town of Dungannon for five years, and there were public-houses on that territory when I first went there; but Mr. John Kinley Tener, who became the agent of the properties in the district, refused, I believe, to renew the leases of public-houses, and, as a matter of fact, the public-houses vanished. There were police-barracks in the centre; they were closed in twelve months afterwards, and the policemen removed. The poor rates came down from 1*s.* 4*d.* and 1*s.* 6*d.* in the pound in the different townlands to 5*d.*, 6*d.*, and 8*d.* Of late a spirit grocer has forced himself in upon the borders of that district; the magistrates resolutely refused a licence within the district, in order to keep the district clear; but a spirit grocer has planted himself, in defiance of the public opinion of the place, right on the border of the place, and I conceive that he will do damage there. That I conceive a very great hardship. This range of country belongs to three proprietors. The population were not consulted, but I am bound to say when Mr. Tener gave up the agency some years ago, they presented him with a carriage and pair of horses, and an address, in which they referred to his action of clearing off the public-houses as one of the greatest blessings which had occurred in the locality, and hoped that his successor would take care that the same rule prevailed. The population is 10,000. Now, I would venture to say that if it is right to allow Mr. Richardson and Mr. Tener to have the power to say, as Mr. Richardson

says, to 4000 people in Bessbrook, 'You shall not have a public-house for the sale of liquor, because I think it will injure your interests and my interests,' and to carry out that rule,—I do not think it can be wrong to allow occupiers of property to say it, if they wish to say it, in their localities."

The evidence of Mr. J. G. Richardson on the same.

And this is Mr. Richardson's testimony :—

"I am the owner of some very extensive linen-mills at Bessbrook. It is a manufacturing town, containing about 4000 people, largely employed in a factory built by the Richardson family, situated about two miles from Newry, in the county of Armagh. The trade principally carried on there is the spinning, weaving, and bleaching of linens and linen yarns of all kinds. About 3000 are employed in the general work of the concern, and 1500 outside in handloom weaving, etc. We began the concern in 1847, thirty-one years ago, and being then convinced that strong drink was the cause of serious injury, we resolved that no house for its sale should be established in our colony, and our experience has enabled us to prove that the absence of the liquor traffic has been a real blessing to our population. The result has been that we have been able to do without police, have no pawn-shops, and have very few people sent to the poorhouse, and have had no prostitution. I made inquiry before coming to give evidence before this committee, and found that two persons, out of some 4000 people, were in the poorhouse—one a weak-minded woman who came from Lurgan, twenty miles off, and who was for a time out of charity brought to our place. On referring to the poorhouse returns for last week, I found that there were eleven inside and nine outside persons receiving relief in our electoral division, called Camlough, containing more than 8000 people; while in Newry, a respectable and wealthy town near us, containing by the last census 14,000 inhabitants, and which now probably contains 16,000, there appear to be 126 inside and eleven outside paupers. In the town of Newry there are 127 public-houses, two spirit grocers, and fifteen to twenty wholesale dealers in the liquor trade, making 149 in all; thus giving one dealer in liquor for every 126 persons, which shows six and a half times as many in proportion to our electoral division, which is really a poor one, including the village

of Camlough, containing seven public-houses, which, no doubt, add to the poverty of our district. So far as I can remember, we have not had thirty cases before the bench of magistrates out of our town of Bessbrook in the thirty-one years; unfortunately, I have left behind me a letter I had from the late inspector of police on this subject. We have had more cases during the last two years in consequence of the increased facility of our people getting into Newry by new conveyances which have been recently established, and, perhaps, from our not having been so strict in choosing some new families. I may add that, considering the population, we have had during our time very few illegitimate births, and that the death-rate has been from $12\frac{1}{2}$ to $14\frac{1}{2}$ per 1000, and that, for a factory population, the committee will agree is a very small proportion. We have about 1000 children and young people on the Protestant sabbath school rolls, and a large number of our respectable young men and women teaching in them."

There are several estates in England where for a long time no liquor-shops have been allowed; in South Hampshire, for instance, near Winchester, there is said to be a manor of some two thousand acres, where, as far as is known, there never was a public-house.

Statement of Mr. A. E. Eccles concerning the prohibition village of White Coppice.

Referring to the village of White Coppice, near Chorley, Lancashire, before the House of Lords' Committee (1877–1878), Mr. A. E. Eccles said—

"The first nine years I lived in the village we had no liquor-shops, and then for seventeen years we had liquor-shops, and for the last fifteen years we have been entirely without. Being young, I recollect very little about the first period, but during the seventeen years we had beer-shops in the village immorality was very common. I should say we had illegitimate children in every other house; but during the last fifteen years we have had only two cases of illegitimacy, and we have had only one illegitimate child born in the village, and very little drunkenness. That is a very striking contrast to the time when we had two beer-shops."

The Saltaire prohibition estate.

Another vast and most successful estate in England where no liquors are allowed is Saltaire, owned by the late Titus Salt, M.P.

There are in all, it is said, almost one thousand estates and villages in England where proprietary prohibition is enforced.

The prohibition real estate companies, of Mr. John Roberts in Liverpool, and the *Artisans' and Labourers' General Dwelling Company* in London.

Some large real estate companies, in London and Liverpool, wherever they extend their operations, exclude the public-house. In Liverpool, the firm of Mr. John Roberts, M.P. for the Flintshire boroughs, hold vast amounts of property in the city, so that in 1882 the land laid out, or in course of being laid out by him, amounted to between 300 and 400 acres, with the number of about 10,000 houses and a population of 60,000, and nowhere on the property in Mr. Roberts' hands is a public-house suffered to exist; and Mr. Balfour, in his article in the *Contemporary* (August, 1879), speaking of Mr. Roberts' transactions, says that Mr. Roberts declares, "That he never yet heard of a complaint being made of the want of a public-house, either from the houseowners or the tenant." And it is well known how prosperous is that vast real estate company in London, the "Artisans' and Labourers' General Dwelling Company." Only last August they opened a new estate, the Noel Park Estate, the Earl of Shaftesbury presiding, and when only this estate is completed, it will contain between 2000 and 3000 houses, with a population from 16,000 to 18,000.

And they not only do not allow public-houses on their estates, but they even exercise what influence they can on neighbouring landowners to prevent the establishment of a cordon of public-houses around them.

The *Pall Mall Gazette* on this point.

Commenting on the estates managed by the "Artisans' and Labourers' General Dwelling Company," the *Pall Mall Gazette* says—

"The most remarkable fact of all, however, is that on all these three large estates there is not a single public-house, and that the inhabitants not only do not demur to this regulation of the company, but actually congratulate themselves on the existing condition of affairs, and strenuously resist all attempts to open public-houses near the estates."

Mr. Hepworth Dixon's description

Mr. David Lewis, in his *The Drink Problem and its Solution* (London, 1881), quotes the following graphic description—by the late Mr. Hepworth Dixon—of the

practical application of prohibition in the town of St. Johnsbury, Vermont:— of the results of prohibition in St. Johnsbury, Vermont.

"No loafer hangs about the curbstone, not a beggar can be seen, no drunkards reel along the streets, there seem to be no poor. I have not seen in two days' wandering up and down one child in rags, one woman like a slut; the men are all at work, the boys and girls at school. I see no broken panes of glass, no shingles hanging from the roof, no yard is left in an untidy state. What are the secrets of this artisans' paradise? Why is the place so clean, the people so well housed and fed? Why are little folks so hale in face, so smart in person, and so neat in dress? All voices, I am bound to say, reply to me that these unusual yet desirable conditions in a workman's village spring from a strict enforcement of the law prohibiting the sale of intoxicating drink."

And the subjoined list of questions, asked by Mr. F. B. Boyce, Hon. Secretary New South Wales Local Option League, and recently answered by the chief clerk of the town of Pullman, U.S.A., is full of pertinent interest:— Success of prohibition in the town of Pullman, U.S.A.

"In what year was the city of Pullman founded?

"Answer: 27th May, 1880.

"What is the population at present?

"Answer: 7500.

"How many churches does it contain?

"Answer: Five have organizations here.

"How many schools also, and teachers employed?

"Answer: Two school buildings, and thirteen public school teachers.

"How many lock-ups or gaols?

"Answer: None.

"Number of magistrates, with amount of salaries?

"Answer: None.

"Number of police, and their cost?

"Answer: One, at £12 a month.

"What is the annual amount spent on relief of the poor?

"Answer: Nothing.

"Can you furnish us with your statistics of crime?

"Answer: We have had no crime.

"Have you any asylums, such as those for lunatics, orphans, benevolent, etc.?

"Answer: None.

"Is the trade in strong drink prohibited?

"Answer: Sale of malt, vinous, and spirituous liquors forbidden.

"Do you attribute to the absence of facilities for getting drink any improved state of morals, as compared with other cities in your state?

"Answer: We certainly do, as one important aid in this direction."

Temperance measures which might be adopted by the wealthy railway companies of Great Britain.

§ 98. Great good could be accomplished if the wealthy railway companies of Great Britain would exclude liquors from their refreshment-rooms, and furnish thirsty travellers with plenty of fresh pure water and the various non-intoxicating drinks.

Dr. J. G. Holland on "Rum and Railroads."

In his paper on *Rum and Railroads* (*Scribner's Monthly*, May, 1872), Dr. J. G. Holland says—"There is an influence proceeding from the highest managing man in a railroad corporation, which reaches further for good or evil than that of almost any other man in any community. If the president or superintendent of a railroad is a man of free and easy habits, if he is in the habit of taking his stimulating glass, his railroad becomes a canal through which a stream of liquor flows from end to end. A drinking head man on any railroad, reproduces himself at every post on his line, as a rule. A thorough temperance man at the head of a corporation is a great purifier, and his road becomes the distributer of pure influences."

The lead taken by Engineer George Stephenson.

The famous engineer, George Stephenson, manager of the Darlington and Stockton Railway Company—the oldest in the world—allowed no liquors to be sold at the stations of his line, and, after twenty-five years' connection with the company, declared that he was satisfied "that if all railway companies were to do away with the sale of drink at their stations, they would be best consulting the interests of the shareholders and the welfare of the travelling public."

Action by the West Lancashire Railway Company in this direction.

Since his day, until recently, temperance reform has made but slow progress among railway men, but of late years it is advancing both here and in other countries. In the winter of 1883 an encouraging example in this direction was set by the West Lancashire Railway Company, whose general manager, Mr. T. Gilbert, wrote to the *British Women's Temperance Association*:—

"I have the pleasure to inform you that this company has no refreshment-rooms at any of its stations where intoxicating liquors are sold. It may be also interesting to you to know that the whole of the company's officials are total abstainers, and that no man receives an appointment under the company unless he has previously been an abstainer of some standing."

Growing success of the total abstinence movement on the Midland line, and in the Railway Union at large.

At the Annual Meeting of the Midland Railway Temperance Society, held at the Derby Station in February, 1884, the chairman, Mr. John Noble, gave a most encouraging account of the growing success of the total abstinence movement, not only all along the Midland line, but the Railway Union at large, and stated that public sentiment along these great lines was daily becoming more favourable to this reform.

Oatmeal drink supplied by the Great Eastern Railway Company to their *employés*.

A correspondent of *On the Line* states that the Great Eastern Railway supplies the "men at the London depôts with oatmeal drink, in large cans with a tap to them, with drinking-cup attached, available to the men as they are at work, and that it is greatly appreciated by them."

In its annual report, May, 1884, the Church of England Temperance Society states that "at least 10,000 out of 350,000 railway men work in the cause of temperance."

The *Toronto Globe* (February 6, 1884) on "Drinking and Positions of Trust."

In a paper on *Drinking and Positions of Trust*, the *Toronto Globe* (Canada, February 6, 1884) says—

"The authorities of the Wisconsin Central Railway issued in October last an order requiring the instant dismissal of any *employé* who might drink even beer whether off or on duty. There was a good deal of opposition to the order at first, as if it infringed upon private rights, etc., but it has wrought so well that we are told several other large railway corporations are thinking of following the same course. This is in the right direction. The travelling public have a right to the greatest possible protection, when on their necessary journeyings, and they will be pleased to know that none who are in charge of trains have even the chance of becoming drunkards. A man does not need to be drunk in order to work irreparable mischief. An extra glass, by giving him a certain amount of unsteadiness of hand or brain, may do all; and these railway authorities in Wisconsin do well to say to all who seek employment from them, 'You can't drink and work

for us. We don't ask you to give over drinking. That's your look-out, and you have a right to do as you please. But if you will drink you are not for us. We require men who have all their wits about them, and that any one who drinks never has.' What is wrong in that? We can see nothing. More than this, we can see nothing but what is reasonable in employers of labour all round adopting the same principle. It is not the man who is actually drunk that causes the mischief by breaking machinery, compromising his employers, and causing confusion all round. It is the man who thinks himself perfectly sober—the man who has only taken 'a couple of glasses of beer,' or a single 'horn' of 'summat,' but who by these means has had his pulse raised a few degrees, has been made aggressive, daring, slightly reckless, yet sufficiently so to make all the mischief. It is the man who thinks that drink 'could not be known on him,' but whose tongue has been slightly loosed, and who has been led to believe that usually he had been but a slow-coach, and must show some more 'go.' This is the sort of man that a shrewd employer ought to fight shy of. . . . The clear brain and the steady nerve are more and more in requisition, and these are not compatible with even moderate tippling and occasional 'bursts.'"

Mr. W. J. Spicer's circular to the Grand Trunk Railway.

And the *Temperance Record* (February 28, 1884) quotes the following circular to the Grand Trunk Railway, issued by its superintendent, Mr. W. J. Spicer:—

"I would ask you to consider very seriously the advisability of joining our temperance movement for the year 1884. In my circular, December, 1880, I said 'there were a good many reasons specially applicable to railway *employés* for abstaining from the use of intoxicating drinks.'

"You have the lives of the public and the safety of persons and property entrusted to your care, requiring at all times the utmost possible caution and vigilance in the performance of your duty. Again, railway *employés*, from their liability to night work, irregular hours, exposure to all kinds of weather, and from the foolish and expensive custom of 'treating,' are exposed to much danger and many temptations. Even passengers have gone so far as to offer, and in fact urge, conductors and brakesmen, when

on duty, to take drink, and have been the cause of trainmen's dismissal from the service. I am sorry to say that I have had to deal summarily with such cases as have come to my knowledge. I only wish I could deal as severely with the perhaps good-natured but most thoughtless and inconsiderate passengers.

"Men subjected to such temptations, at any time, are safe only as total abstainers. The 'one glass more' often has the effect of making a man careless, sleepy, and indifferent to danger, if not worse, at a time when he most needs to have all his senses clear and wide awake for his own and others' safety.

"I have only to refer you to the Offence Circulars to satisfy you that I am speaking in the best interest of every *employé* of every grade, and in the interest of the company and the public, in urging you to become total abstainers for the year 1884."

The discontinuance of the custom of distributing drink to crews now so largely the rule both on the inland lakes of the United States, on river crafts, ocean steamers, sailing vessels, and men-of-war, originated with Mr. Charles Howard, one of the pioneer shipping merchants of the United States. His son, the distinguished American author and playwright, Mr. Bronson Howard, tells the story so well that I prefer giving it in his own words from a letter written to me March 31, 1884, as follows:—

Mr. Bronson Howard's account of the origin of temperance reform on the lakes and the ocean.

"My father was personally associated with the shipping of the lakes from his earliest manhood, being half owner and master of a vessel, the *New York*, before he was twenty-five years old; and he was said to have been the original of Fennimore Cooper's young sailor *Jasper* in the *Pathfinder*. In 1830, when he was about twenty-six years old, and while he was master or 'captain' of this vessel—one of a large fleet in Lakes Erie and Ontario—the incident of which I spoke to you occurred, and which was, I think, the beginning of the temperance system now almost universal in the mercantile marine of the ocean and the lakes.

"In those days of general 'hard drinking' it was the custom on our lakes to have a keg of whisky in the companion-way of every vessel, with its tap free to every member of the crew. Any deviation from this rule would have been considered mean and niggardly. The rule on

the ocean was, I believe, to serve out 'grog' to the men, but this was done in such liberal quantities as to make the custom differ but little from that in vogue on the American lakes. No owner or captain was free from the absolute tyranny of this custom-law.

"During one of my father's voyages, late in December, 1830, the crew suffered frightfully from a violent storm, with snow, sleet, and ice. All their physical energies were needed to control the vessel. What makes such a situation doubly fatiguing and perilous is the fact that it is impossible to run before the storm as on the ocean, and the men are obliged to handle the sails and rigging at frequent intervals, though every rope and every inch of canvas is coated with ice. About one-half of my father's crew drank nothing in the way of spirits while at work; the other half drew liberally on the keg to 'keep them warm.' If ever whisky could do this service for mankind, it could do it under such circumstances. The result was that my father was obliged to depend *entirely* on the half of his crew that did *not* drink, for nearly thirty-six hours. At last they were forced to do the duty of both watches; and as the second in command, the 'mate,' was one of the alcoholists, my father was compelled to remain in active command during the whole time without rest, until the vessel was safe. He told me that the men who drank did not make themselves drunk, and were not in that sense incapacitated; they simply could not withstand the cold, while the other men were able to do double work.

"This was only the last of many similar experiences, which had been almost as bad, and after the storm had subsided, my father, in a spirit of utter disgust, turned open the tap of the whisky keg, on his way down to the cabin, leaving the sacred fluid to its own unfettered fancy! Soon after the mate appeared, and father saw him looking at the open faucet and shaking the empty keg with an expression of wonderment and dismay. When my father told him that the last drop of spirits had been drunk on board that vessel in the way of 'grog,' the mate exclaimed in astonishment and said that no owner nor captain could carry out such a wild plan. He and his fellow-drinkers left the crew at the end of the trip. Others, willing to go without 'grog,' were engaged in their places.

"To meet the certain charge of niggardliness, the ordinary rough sailors' fare was changed to the best food the market of each port could supply, including the finest coffee and other luxuries, such as oysters, etc., when within reach.

"My father persisted in the plan he had thus marked out, and the result was a very important one, far beyond his anticipation, for an all-powerful commercial ally suddenly ranged itself on the side of temperance—the marine insurance companies began at once to allow discriminating rates on his vessel and on goods carried in it. All the other shipowners and masters on the lake were *compelled* to adopt the temperance rule, by the exigencies of business competition. From the lakes the custom spread—undoubtedly through the powerful pressure of the insurance companies—to the ocean; and at the present day the custom of supplying liquor freely to sailors is a very rare exception, if it exists at all. Its latest stronghold was the navy, which the interests of insurance companies cannot reach, of course.

"The great reform resulting from my father's action, though not anticipated, was a matter of sincere pleasure to him in after years, as he watched its general development."

Suggestion made by Mr. Samuel Morley, M.P., that an Abstainers Union should be attached to every commercial concern.

A most valuable suggestion to wealthy merchants was made about four years ago by Mr. Samuel Morley, M.P. "The City of London Total Abstainers Union had its origin in my warehouse," said he, "and *I cannot but think some such association should be attached to every commercial concern.*"

Action in favour of the Blue Ribbon movement and other temperance measures by the aristocracy of England.

§ 99. The aristocracy, as a class, have been tardy in adding the weight of their example and influence to the success of the temperance movement. But on the 21st of April, 1883, a large number, both ladies and gentlemen, of the wealth and aristocracy of London, met at Stafford House, in response to an invitation from the Duchess of Sutherland, to join in the Blue Ribbon movement, for the promotion of the cause of temperance.

Lord Mount Temple presided, and said—

"The object of the meeting was to bring under their notice the overwhelming evils to the country resulting from the misuse of intoxicating and stimulating drinks.

That abuse filled our gaols, poor-law unions, and lunatic asylums; brought misery, strife, and ruin to many of the homes of the working classes; and overshadowed with sorrow and sympathy even those who were free from any personal experience of its evils, and who lived in comfort and refinement in such houses as that in which they were gathered. Another point to consider was the remedy for this deplorable state of things. The remedy which had been found by experience to be the most complete and satisfactory was for persons to pledge themselves to resist temptation. But that was beyond the reach of many. There had now been established a new form of fellowship, conviviality, and brotherhood, and that was the fellowship of the Blue Ribbon. The Blue Ribbon established a public opinion adverse to the drink influence.* It had created a large amount of public opinion in favour of total abstinence. It brought together the middle, lower, and upper classes, and established a common feeling. The question then arose, What was their duty to help on the new movement? Their example would be felt much more than any amount of precept. He earnestly appealed to the aristocracy to join the new movement, as a means of conferring great and lasting benefits upon the poorer classes. It would necessitate some self-sacrifice, and perhaps call down upon them sneers and censure, but it was their duty; and not only that, but, as in his own case, they would find many compensations for the sacrifice. The noble lady, too, who had invited them had exercised disinterestedness, almost chivalrous courage, in adopting the blue ribbon, an example which he trusted would be widely followed, for it would help to carry light and joy into many a home."

During the year 1883, several of the nobility have identified themselves in a practical way with the temperance cause. Thus, according to the annual report of the

* "The Rev. S. Sturges, M.A., Vicar of Wargrave, in his stirring speech in Willis's Rooms, remarked, 'What a glorious thing it would be if the Princess of Wales and her daughters would assume the blue ribbon! The Princess of Wales has endeared herself to the people of this country by her many admirable qualities. Recently she has discountenanced the cruel sport of pigeon-shooting. But what is that compared to the cruel sport of drinking?'"—*Church of England Temperance Chronicle*, May 12, 1883.

Church of England Temperance Society, just published, "during the year coffee-taverns have been opened in Marylebone, at the sole cost of Viscountess Ossington; in Wells, chiefly owing to the activity of the Lord Bishop of the Diocese; and only in January last Lord Pembroke announced his intention of providing similar institutions upon his own estates. . . . In May last, Lady de Rothschild invited the leading agriculturists, farmers, and others to a conference at Aston Clinton, when 62 out of 66 farmers invited attended. A resolution approving the payment of wages in money instead of beer was unanimously passed."

At the laying of the corner-stone of the new wing of the London Temperance Hospital on the 24th of April, 1884, the Duke of Westminster, who officiated, said of alcohol that it had a tendency to produce artificial craving, and that many ignorant people had been led to suppose, because doctors prescribed wine and spirits, they must be a necessary means of cure for most maladies, and this mistaken notion had laid the groundwork for habits of dangerous self-indulgence which might otherwise never have been formed. The Duke of Westminster informs me that since 1877 there have been "twenty-seven public-houses abolished on his London property."

The significance of the Blue Ribbon movement.

It is of great importance that temperance workers should know and value the blue ribbon. It has a deep symbolic meaning, and in a manifold sense: sympathy with the fallen, sorrow that such a badge is necessary; hope, because of faith in God and man; and help, by fellowship and willingness, to do each his part in saving from the evil of drink. The blue ribbon is a personal protest against drinking, a Christian *Carthaginem præterea censeo* against the public-house, a reminder and check against personal temptation to drink, a protection against solicitations to drink, an example and encouragement to those who might falter and fall, and a bond of fellowship between all those who wish to see man lifted out of the degradation into which alcohol has plunged him. The bit of blue ribbon which Mr. Samuel Morley, M.P., wears in the House of Commons and in the streets of the city, or when presiding over large temperance and other meetings for reform, is greater in its silent influence than anything

he could say if that little sign were missing. Many think that the wearing of the blue ribbon is a childish sign of an enthusiasm that will vanish as quickly as it sprung up. But they who wear it hope and pray that, like that tiny portent in the sky, "no bigger than a man's hand," it will spread and spread until among all peoples in all lands the parching thirst, the destroying drought of alcohol, may be quenched in healing streams of pure invigorating water.

Mr. Gladstone's utterance as to the significance of the Blue Ribbon movement..

The Rev. A. C. Bevington, minister of the Methodist New Connexion Chapel at Hawarden, writing to the editor of the *British Temperance Advocate*, says that the Right Honourable W. E. Gladstone, in a recent conversation with him at Hawarden, thus expressed himself relative to the Blue Ribbon movement:—

"From the first, I have watched the temperance question with great interest; but I am bound to say that no phase of it has ever yielded me so much satisfaction as this has done. To witness the large number of ministers of all denominations, and, of course, the still larger number of members of perhaps all the Churches, wearing the ribbon of blue, is an exceedingly gratifying circumstance, and speaks well for the future;* indeed, I firmly believe, as far as this matter is concerned, that much brighter days will soon, in God's good providence, dawn upon us."

The plan and organization of the Temperance Federation of Great Britain, 1883.

§ 100. The initiative in a measure of very great importance—if harmony can be maintained—to the temperance movement has just been taken in the proposition of Alderman Clegg of Sheffield (chairman of the British Temperance League), that all the temperance organizations of Great Britain and Ireland should form a Temperance Federation. To this end a meeting was held at Manchester, on the 17th of October, at which some seventeen temperance societies were represented. After long discussion, it was resolved—

"That in the opinion of this meeting it is desirable to federate the various temperance organizations of the United Kingdom in favour of measures upon which there is a general agreement, and that a committee of delegates be

* It is an encouraging fact that so important a personage as Sir W. F. Stawell, the Chief Justice of Victoria, has donned the blue ribbon. (See *Temperance Record*, May 8, 1884.)

appointed by this meeting to confer with the British Temperance League, and to draw the basis upon which such federation should be founded."

On the 8th of November, another large conference of delegates from the United Kingdom Temperance organizations was convened at Exeter Hall, representing some two million total abstainers, for the purpose of drawing up a constitution of federation. The following rules were adopted:—

"1. That the Federation be styled 'The National Temperance Federation.'

2. That the objects of the Federation shall be the promotion of temperance, both by moral suasion and legal enactment, by aid of the joint action of temperance organizations.

3. That the Federation shall consist of temperance leagues, unions, associations, and orders, and such other representative organizations as may be approved by the Executive Committee.

4. That the General Council shall consist of not more than five delegates from each federated society, and shall meet annually in London in January or February; and an autumnal meeting shall be held in some provincial town.

5. The officers shall be elected by the General Council at the annual meeting, and shall consist of a president (who shall be elected annually), vice-presidents, treasurer, and secretaries.

6. The Executive Committee shall consist of one representative president from each federated society, together with the treasurer and secretaries; and shall meet not less than once a quarter, at such time and place as they shall from time to time determine.

7. That the Executive Committee shall appoint a Parliamentary Committee, which, during the sitting of Parliament, shall meet once a week, or as often as may be necessary.

8. That no expenses shall be incurred without the consent of the Executive Committee, and such expenses shall be met by contributions from the federated societies.

9. That no alteration in the above rules (when once adopted by the General Council) shall be made except at the annual meeting, or at a meeting specially called; and that one month's notice of any proposed alteration shall be given through the secretary, and shall not take effect except there be a two-thirds majority in its favour.

Suggested Basis.

The basis of co-operation for the federated societies is that they should work together in view of legislative and other action on the points upon which they are agreed, and bring their influence to bear on Parliament, and with

her Majesty's Government, and through the country generally, as a united body; such common action to extend, of course, only so far as there is common agreement, and to be made subservient to the carrying of measures of positive advance, as well as to the careful guarding against any proposals of a retrograde nature.

SUGGESTED POINTS ON WHICH COMMON ACTION MIGHT BE TAKEN.

1. The Federation might at once, by a united memorial, signed by the officers of each organization, urge on the Cabinet the duty of extending and making perpetual the Irish Sunday Closing Act, and of acceding to the nation's manifest desire for an English Sunday Closing Bill; and also the duty of their seeing that time is made available during the coming session for such legislation; and at the proper time the Federation might be strongly represented in the lobby of the House of Commons, in order to ensure the success of these measures.

2. The federated organizations might urge upon her Majesty's Government the further duty of fulfilling the pledges so often given by them, to deal with the Licensing Laws in general, and to no longer postpone action in this regard; viewing the now thrice-expressed opinion of the House of Commons in favour of an efficient measure of Local Option. They might urge especially two points:—

(*a*) That the control of the issue of licences, whether for the first time, or by way of renewal, transfer, or removal, should be in the hands of the ratepayers, and that in present circumstances this may be done by the formation of Licensing Control Boards, specially elected for the purpose by the ratepayers, and with full power to withhold all or any of the Licences; but that in any well-defined area forming part of a district for which a board has been elected, the ratepayers shall have a direct veto for the withholding of all licences.

(*b*) That by no parliamentary enactment should there be a creating of vested interests in licences, which interests legal decisions have emphatically declared do not exist.

With reference to this question also a joint memorial to the Cabinet might be of value at this time, as well as the careful watching of any Government, or other measure proposed, and prompt action either in support of, or opposition to, or for amendment of, the same.

3. An emphatic joint expression of opinion in favour of the suppression of grocers' and off licences might likewise be at once forwarded to the Government; as well as against the power of granting occasional licences, or extension of hours, and in favour of closing public-houses on the days of municipal and parliamentary elections.

It was also resolved—1. That the Federation does not

approve of, but will oppose to the full extent of its influence, the placing of the power of granting licences in the hands of Town Councils or County Boards. 2. That each organization represented be invited to contribute not less than £5 each, to meet the incidental expenses of the Federation during the first year."

On the 6th of February, 1884, a meeting was held at Exeter Hall by delegates of this proposed federation, and it was resolved to form a National Temperance Federation on the following basis:—

"The basis of co-operation for the federated societies is that they should work together in view of legislative and other action on the points upon which they are agreed, and bring their influence to bear on Parliament and with her Majesty's Government, and through the country generally, as a united body; such common action to extend, of course, only so far as there is common agreement, and to be made subservient to the carrying of measures of positive advance, as well as to the careful guarding against any proposals of a retrograde nature."—Mr. W. S. Caine, M.P., was elected president, and vice-presidents and other officers were appointed.

The foundation of all temperance reform in individual character and worth.

§ 101. Yet all these noble and heroic efforts will collapse, as in the past, if they be not founded in individual character and worth.

On the individual, be he rich or poor, eminent or obscure; on his patience, unselfishness, wisdom, constancy, and humility, all reform, all regeneration, comes at last to depend; without these, Church, State, and society, together with their loftiest schemes, fall little by little into moral decay.

The first thing is, for each man, woman, and child of us, yes, each one, the greatest and the least, to start with the conviction and understanding that temperance is not limited to abstinence from alcoholic liquors, but that it means, as Cicero expressed it, "the unyielding control of reason over lust and over all wrong tendencies of mind . . . modesty and self-government . . . *abstinence from all things not good and entirely innocent in their character.*"

And to remember that while the work to be done is so

great that no one person could ever hope to do it, and the evil to be uprooted so strong and full-grown that we may not reasonably look for its subjugation in our own day, yet that the work will be done, the evil overcome, *if each one does his part towards it.**

"The one secret of life and development is not to devise and plan, but to fall in with the forces at work—to do every moment's duty aright." †

The hope of temperance reform—like the hope of all other reforms—is vested in love, labour, and humility.

Then, in whatsoever place, circumstance, or condition we are placed, we are to find out, each of us, what our own personal individual duty is, and we shall be sure to find this out if we care supremely to know.

With the performance of duty will come wisdom, showing us how to avoid giving offence, how to undermine and subdue evil without wounding friend or affronting opponent. With wisdom also will come patience, because we shall learn to understand that what is gained easily, too often passes quickly because it is not gained *thoroughly*, and we shall learn not to be dismayed by much labour, and much waiting, because we shall, by our persistence and constancy, have learned unselfishness, and know that what we are sowing shall be reaped by them that come

* A noble instance of just this individual fidelity, as related of the late Mr. Joseph Sturge by the philanthropist Mr. T. B. Smithies, is thus reported in *The Christian* (March 6, 1883)—

"One day Mr. Sturge met a drunken man, and questioned him as to his condition. The man replied that he had got drunk at such and such a public-house, and added, 'The beer was made from your barley.' The statement startled him, but it at once influenced his action. The following issue of the *Mark Lane Express* contained a notice from Messrs. Sturge that under no circumstances would they in future supply barley for malting purposes. This decision struck off £8000 a year from their income."

An equally admirable individual effort for temperance was that made by the Rev. Carr Glynn, Vicar of Kensington, when appointed at Doncaster. Having observed the temptation the public-house offered to early outdoor labourers, he procured a cart, supplied it with a first-class coffee-stand; went himself with it to places where early outdoor labour was going on, and induced the workmen to take his coffee instead of going to the public-house to get whisky or beer. I have this incident on the authority of Mr. Heaton, Commissioner of Lunacy.

† See George MacDonald's noble story of *Sir Gibbie* (London, 1879).

after us, when "bells in unbuilded spires, and voices of unborn choirs" shall bless our names and the good work we have done; and we shall be happy in knowing that the saplings we set out, though they grew too slowly to give shade to us, will make the green and healthy everlasting bowers where our children's children's homes shall be.

APPENDIX.

TABLE XXII.—Showing the Assigned Causes of Insanity* Borough Asylums, Registered Hospitals, Naval and Military Wales, during the year 1882.

[The total number of these admissions during 1882 was

Causes of insanity.	Number of instances					
	As predisposing cause.†			As exciting cause.†		
	M.	F.	T.	M.	F.	T.
Moral.						
Domestic trouble (including loss of relatives and friends)	42	78	120	174	554	728
Adverse circumstances (including business anxieties and pecuniary difficulties)	88	43	131	431	207	638
Mental anxiety and "worry" (not included under the above two heads); and overwork	49	31	80	263	289	552
Religious excitement	6	14	20	155	188	343
Love affairs (including seduction) ...	4	15	19	39	129	168
Fright and nervous shock	5	5	10	36	96	132
Physical.						
Intemperance, in drink	135	33	168	904	364	1,268
,, sexual	13	7	20	54	32	86
Venereal disease	14	2	16	14	7	21
Self-abuse (sexual)	16	2	18	79	5	84
Over-exertion	11	5	16	27	29	56
Sunstroke	64	2	66	67	7	74
Accident or injury	104	20	124	160	35	195
Pregnancy	—	11	11	—	37	37
Parturition and the puerperal state	—	31	31	—	346	346
Lactation	—	24	24	—	123	123
Uterine and ovarian disorders ...	—'	21	21	—	95	95
Puberty	3	18	21	3	30	33
Change of life	—	88	88	—	138	138
Fevers	9	10	19	26	20	46
Privation and starvation	9	35	44	55	114	169
Old age	98	114	212	65	78	143
Other bodily diseases or disorders ...	142	139	281	352	416	768
Previous attacks	—	—	—	—	—	—
Hereditary influence ascertained ...	—	—	—	—	—	—
Congenital defect ascertained ...	—	—	—	—	—	—
Other ascertained causes	27	25	52	127	32	159
Unknown	—	—	—	—	—	—

* These "causes" are not taken from the "statements" in the papers of admission the asylums.

† With reference to the above distinction between "predisposing" and "exciting" any individual case.

‡ These totals represent the entire number of instances in which the several causes mental disorder. The aggregate of these totals (including "unknown"), of course,

IN THE CASES OF ALL PATIENTS ADMITTED INTO COUNTY AND HOSPITALS, STATE ASYLUMS, AND LICENSED HOUSES IN ENGLAND AND

13,581, being 6,663 of the male, and 6,918 of the female sex.]

in which each cause was assigned.						Proportion (per cent.) to the total number of patients admitted during the year.		
As predisposing or exciting cause (where these could not be distinguished.) †			Total.‡					
M.	F.	T.	M.	F.	T.	M.	F.	T.
66	82	148	282	714	996	4·2	10·3	7·3
96	32	128	615	282	897	9·2	4·0	6·6
84	54	138	396	374	770	5·9	5·4	5·6
35	33	68	196	235	431	2·9	3·4	3·1
6	27	33	49	171	220	·7	2·4	1·6
18	21	39	59	122	181	·9	1·7	1·3
269	74	343	1,308	471	1,779	19·6	6·8	13·1
18	9	27	85	48	133	1·2	·7	1·0
10	5	15	38	14	52	·6	·2	·4
25	1	26	120	8	128	1·8	·1	·9
8	1	9	46	35	81	·7	·5	·6
28	1	29	159	10	169	2·4	·1	1·2
101	13	114	365	68	433	5·5	1·0	3·2
—	7	7	—	55	55	—	·8	·4
—	79	79	—	456	456	—	6·6	3·3
—	10	10	—	157	157	—	2·3	1·1
—	16	16	—	132	132	—	1·9	1·0
9	8	17	15	56	71	·2	·8	·5
—	48	48	—	274	274	—	3·9	2·0
7	8	15	42	38	80	·6	·5	·6
26	27	53	90	176	266	1·3	2·5	1·9
86	108	194	249	300	549	3·7	4·3	4·0
255	208	463	749	763	1,512	11·2	11·0	11·1
—	—	—	878	1,273	2,151	13·2	18·4	15·8
—	—	—	1,239	1,506	2,745	18·6	21·8	20·2
—	—	—	363	229	592	5·4	3·3	4·3
50	34	84	204	91	295	3·0	1·3	2·1
—	—	—	1,417	1,441	2,858	21·3	20·8	21·0

of the patients, but are those which have been verified by the Medical Officers of

causes, it must be understood that no single cause is enumerated more than once in

(either alone or in combination with other causes) were stated to have produced the

exceeds the whole number of patients admitted; the excess is owing to the combinations.

TABLE XXIII.—Showing the Assigned Causes of Insanity in Registered Hospitals, Naval and Military Hospitals, State the year 1882, arranged according to the Class of the

Causes of insanity.	Number of instances in which		
	Private. The total number admitted was 2,212. (1,134 males and 1,078 females.)		
	M.	F.	T.
Moral.			
Domestic trouble (including loss of relatives and friends)	57	123	180
Adverse circumstances (including business anxieties and pecuniary difficulties)	123	40	163
Mental anxiety and "worry" (not included under the above two heads); and overwork	152	94	246
Religious excitement	19	53	72
Love affairs (including seduction)	13	43	56
Fright and nervous shock	7	30	37
Physical.			
Intemperance, in drink	198	73	271
" sexual	27	2	29
Venereal disease	15	1	16
Self-abuse (sexual)	29	4	33
Over-exertion	11	4	15
Sunstroke	29	1	30
Accident or injury	40	13	53
Pregnancy	—	9	9
Parturition and the puerperal state	—	66	66
Lactation	—	11	11
Uterine and ovarian disorders	—	49	49
Puberty	3	8	11
Change of life	—	58	58
Fevers	17	10	27
Privation and starvation	1	—	1
Old age	31	35	66
Other bodily diseases or disorders	102	105	207
Previous attacks	146	194	340
Hereditary influence ascertained	214	236	450
Congenital defect ascertained	77	53	130
Other ascertained causes	97	22	119
Unknown	170	157	327

THE PATIENTS ADMITTED INTO COUNTY AND BOROUGH ASYLUMS, ASYLUMS, AND LICENSED HOUSES IN ENGLAND AND WALES, DURING PATIENTS.

each cause was assigned.			Proportion (per cent.) to the total number of patients in each class admitted during 1882.					
	PAUPER. The total number admitted was 11,369. (5,529 males and 6,840 females.)			PRIVATE.			PAUPER.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.
	225	591	816	5·0	11·4	8·1	4·0	10·1	7·1
	492	242	734	10·8	3·7	7·3	8·9	4·1	6·4
	244	280	524	13·4	8·7	11·1	4·4	4·8	4·6
	177	182	359	1·6	4·9	3·2	3·2	3·1	3·1
	36	128	164	1·1	3·9	2·5	·6	2·2	1·4
	52	92	144	·6	2·8	1·6	·9	1·6	1·2
	1,110	398	1,508	17·4	6·7	12·2	20·0	6·8	13·2
	58	46	104	2·4	·2	1·3	1·0	·8	·9
	23	13	36	1·3	·1	·7	·4	·2	·3
	91	4	95	2·5	·3	1·5	1·6	—	·8
	35	31	66	·9	·3	·7	·6	·5	·6
	130	9	139	2·5	·1	1·3	2·3	·1	1·2
	325	55	380	3·5	1·2	2·4	5·8	·9	3·3
	—	46	46	—	·8	·4	—	·8	·4
	—	390	390	—	6·1	2·9	—	6·6	3·4
	—	146	146	—	1·0	·5	—	2·5	1·3
	—	83	83	—	4·5	2·2	—	1·4	·7
	12	48	60	·2	·7	·5	·2	·8	·5
	—	216	216	—	5·3	2·6	—	3·7	1·9
	25	28	53	1·5	·9	1·2	·4	·4	·4
	89	176	265	·1	—	—	1·6	3·0	2·3
	218	265	483	2·7	3·2	2·9	3·9	4·5	4·2
	647	658	1,305	8·9	9·7	9·3	11·7	11·2	11·4
	732	1,079	1,811	12·8	17·9	15·3	13·2	18·4	15·9
	1,025	1,270	2,295	18·9	21·8	20·3	18·5	21·7	20·2
	286	176	462	6·8	4·9	5·9	5·2	3·0	4·0
	107	69	176	8·5	2·0	5·4	1·9	1·1	1·5
	1,247	1,284	2,531	14·9	14·5	14·8	22·5	22·0	22·2

TABLE XXIV.—Showing the Assigned Causes of Insanity in the cases of the General Paralytics admitted into County and Borough Asylums, Registered Hospitals, Naval and Military Hospitals, State Asylums, and Licensed Houses in England and Wales, during the year 1882.*

[The total number of these admissions was 1,151, being 923 of the male, and 228 of the female sex.]

Causes of insanity.	Number of instances in which each cause was assigned.			Proportion (per cent.) to the total number of general paralytics admitted.		
	M.	F.	T.	M.	F.	T.
Moral.						
Domestic trouble (including loss of relatives and friends)	35	22	57	3·8	9·6	4·9
Adverse circumstances (including business anxieties and pecuniary difficulties)	126	15	141	13·6	6·5	12·2
Mental anxiety and "worry" (not included under the above two heads); and overwork	65	3	68	7·0	1·3	5·9
Religious excitement	10	1	11	1·1	·4	·9
Love affairs (including seduction) ...	3	2	5	·3	·9	·4
Fright and nervous shock	3	—	3	·3	—	·2
Physical.						
Intemperance, in drink	234	30	264	25·3	13·1	22·9
,, sexual	28	7	35	3·0	3·0	3·0
Venereal disease	9	4	13	1·0	1·7	1·1
Self-abuse (sexual)	3	—	3	·3	—	·2
Over-exertion	14	—	14	1·5	—	1·2
Sunstroke	32	1	33	3·5	·4	2·8
Accident or injury	71	3	74	7·7	1·3	6·4
Pregnancy	—	4	4	—	1·7	·3
Parturition and the puerperal state	—	13	13	—	5·7	1·1
Lactation	—	4	4	—	1·7	·3
Uterine and ovarian disorders ...	—	2	2	—	·9	·2
Puberty	—	—	—	—	—	—
Change of life	—	6	6	—	2·6	·5
Fevers	2	—	2	·2	—	·2
Privation and starvation	18	7	25	1·9	3·0	2·1
Old age	3	5	8	·3	2·2	·7
Other bodily diseases or disorders ...	115	35	150	12·4	15·3	13·0
Previous attacks	63	18	81	6·8	7·8	7·0
Hereditary influence ascertained ...	161	42	203	17·4	18·4	17·6
Congenital defect ascertained ...	1	1	2	·1	·1	·2
Other ascertained causes	9	2	11	1·0	·9	·9
Unknown	242	75	317	26·2	32·9	27·5

* This table may be compared with Table XXII., which shows the Causes of Insanity in the cases of *all* the patients admitted during 1882.

TABLE XXV.—SHOWING THE ASSIGNED CAUSES OF INSANITY IN THE CASES OF THE PATIENTS WITH SUICIDAL PROPENSITY WHO WERE ADMITTED INTO COUNTY AND BOROUGH ASYLUMS, REGISTERED HOSPITALS, NAVAL AND MILITARY HOSPITALS, STATE ASYLUMS, AND LICENSED HOUSES IN ENGLAND AND WALES, DURING THE YEAR 1882.*

[The total number of these admissions was 3,877, being 1,785 of the male, and 2,092 of the female sex.]

Causes of insanity.	Number of instances in which each cause was assigned.			Proportion (per cent.) to the total number of patients admitted with suicidal propensity.		
	M.	F.	T.	M.	F.	T.
MORAL.						
Domestic trouble (including loss of relatives and friends)	110	269	379	6·1	12·8	9·7
Adverse circumstances (including business anxieties and pecuniary difficulties)	121	104	225	6·7	4·9	6·0
Mental anxiety and "worry" (not included under the above two heads); and overwork	138	153	291	7·7	7·3	7·5
Religious excitement	63	79	142	3·5	3·8	3·6
Love affairs (including seduction) ...	16	60	76	·9	2·9	1·9
Fright and nervous shock	17	40	57	·9	1·9	1·4
PHYSICAL.						
Intemperance, in drink	340	130	470	19·0	6·2	12·1
„ sexual	15	6	21	·8	·3	·5
Venereal disease	9	5	14	·5	·2	·3
Self-abuse (sexual)	37	3	40	2·0	·1	1·0
Over-exertion	10	10	20	·6	·5	·5
Sunstroke	26	2	28	1·4	·1	·7
Accident or injury	100	25	125	5·6	1·2	3·2
Pregnancy	—	15	15	—	·7	·4
Parturition and the puerperal state	—	147	147	—	7·0	3·8
Lactation	—	66	66	—	3·1	1·7
Uterine and ovarian disorders ...	—	54	54	—	2·6	1·4
Puberty	7	12	19	·4	·6	·5
Change of life	—	112	112	—	5·3	2·9
Fevers	10	7	17	·6	·3	·4
Privation and starvation	29	54	83	1·6	2·6	2·1
Old age	61	60	121	3·4	2·9	3·1
Other bodily diseases or disorders ...	210	226	436	11·8	10·8	11·2
Previous attacks	248	368	616	13·9	17·6	15·8
Hereditary influence ascertained ...	385	502	887	21·6	24·0	22·8
Congenital defect ascertained ...	53	38	91	2·9	1·8	2·3
Other ascertained causes	39	22	61	2·2	1·0	1·6
Unknown	344	387	731	19·2	18·5	18·8

* This table may be compared with Table XXII., which shows the Causes of Insanity in the cases of *all* the patients admitted during 1882.

TABLE XXVIII. — SHOWING THE NUMBER OF PATIENTS WITH SUICIDAL PROPENSITY WHO WERE ADMITTED INTO COUNTY AND BOROUGH ASYLUMS, REGISTERED HOSPITALS, NAVAL AND MILITARY HOSPITALS, STATE ASYLUMS, AND LICENSED HOUSES IN ENGLAND AND WALES, DURING THE YEAR 1882, ARRANGED ACCORDING TO THEIR FORMS OF MENTAL DISORDER.

From of mental disorder.	Total number of patients admitted during 1882.			Of the total number of patients admitted during 1882. Number with suicidal propensity.			Proportion (per cent.) of the number admitted with suicidal propensity to the total number of patients admitted during 1882.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Mania	3,218	3,682	6,900	658	836	1,494	20·4	22·7	21·6
Melancholia	1,438	1,866	3,304	837	1,058	1,895	58·2	56·7	57·3
Dementia { Ordinary	1,096	698	1,794	163	115	278	14·8	16·5	15·5
Dementia { Senile	247	276	523	47	38	85	19·0	13·7	16·2
Congenital insanity (including idiocy and other mental defects from birth or infancy)	414	266	680	38	21	59	9·2	7·9	8·7
Other forms of insanity	250	130	380	42	24	66	16·8	18·4	17·3
Total	6,663	6,918	13,581	1,785	2,092	3,877	26·8	30·2	28·6

Local Option, Prohibition and Compensation.

The *Alliance News* for June 28, 1879, had the following leader on

"The Rights of Sober Men.

"We hear and read a good deal about the rights of drinkers. We are told, indeed, by the *Times* that no man now defends drunkenness. Perhaps not. Thousands, however, excuse it, and millions practise it. Men affirm that they will not have Maine Laws, Permissive Bills, Local Option, or anything of the sort. They stand upon what they call their rights. Now, let it be understood that no civilized people permit any man absolute freedom of speech and action. We are all under law. Our freedom is not without bounds. There are legal and moral barriers around us. All true life has limitations. Unlimited liberty means fire, slaughter, confusion, and misery.

"For any man, therefore, to argue about his rights, and especially about his right to make, sell, buy, give, and consume strong drink, as though he was alone to be consulted, is the height of selfish folly. Is he not a member of a community? Do not his actions affect others? Does not his drink introduce an element of danger into society? And if this is the case, may not his right become obsolete? May its exercise not become a great wrong? This is what we contend.

"Let us illustrate the position. We write this in a metropolitan parish of vast extent, and we have to pay its rates. Let us look at them. For the relief of the poor the rates amount to £51,500. Now, the parish swarms with public-houses, and their victims fill the workhouse. The more people drink, the more rates we have to pay. Have we, then, no rights in this matter? If a public-house, through the pauperism which it produces and perpetuates, takes money out of our purse from year to year, are we not to have the power of saying whether we will have the public-house there? Are the rights of the selfish drinker supreme? And have we none?

"Let us look at another item. The police costs the parish £13,788. That is a heavy item. But what makes it so? Undoubtedly it is intemperance, and that boozing which makes men quarrelsome and criminal. The sober man never takes three or four policeman to carry him to a cell and arraign him before a magistrate. It is the alleged right to drink that swells the police rate. Must we, then, pay an army of blue-coated men to keep in

order those curious people who seem to think that their right to drink must not be challenged? Must we pay £13,788 for police, and see the force chiefly engaged with the victims of public-houses, and go on paying world without end? Have we no rights in this matter? We hold that we have, and we shall take care to claim them to the uttermost.

"Then there is the school board. It costs us £22,618. We do not object to the education of the poor man's child, but has the poor man a right to spend money upon beer, and then tax us to educate his child? Have we no rights in that case as to his beer? Has he and he alone rights in reference to beer, and we none as to the tax which his beer imposes upon us in reference to his child?

"This popular belief in the drinker's rights is a mistake. A community has a right to suppress anything which makes men bad citizens, and this is the case with the traffic in strong drink. Let the sober men therefore look after their right in relation to it, and put the traffic down."

From the *Alliance News*, February 9, 1884:—

"The Law of the Transfer of Licences.

"*No Landlord's Property in the Licence.*

"In the Queen's Bench Division, January 31 (Sittings in Banco in the Lord Chief Justice's Court, before Baron Pollock and Mr. Justice Lopes), an important case was tried—that of *The Queen* v. *The Justices of Derby*. This was a public-house licence case, which raised and decided the point that on an application for the transfer of a licence the magistrates have an absolute discretion to grant it or refuse it, and may refuse it on the ground that in their opinion there is no necessity for another public-house in the parish, and that, even, although the house is an old one. The question had arisen in the present case amidst these circumstances. The house, which was in the Market-place, Derby, was an old one, and it was stated that it had been occupied for a hundred years by wine merchants with a full public-house licence. In 1865 it was let to two persons named Cox and Bowring on a fourteen years' lease expiring on the first of July, 1879. At the annual licensing meeting in 1876 Cox and Bowring obtained a new licence for new premises they had built in Irongate, and this was renewed at the annual meeting in 1877, the justices then refusing to renew the licence to the Market-place premises, from which in June, 1877, Cox and Bowring had removed their business. They did not give up possession to the owners until the expiration of the lease in July, 1879, and the premises remained unlicensed after October 15, 1877, till the present time. Minnitt, the applicant, took the premises from the owners in 1879, and applied at the annual licensing meetings in

1879, 1880, 1881, and 1882, for a new licence, which was always refused. In consequence of the decision in *The Queen* v. *The Justices of Liverpool* in the Court of Appeal in July last, application was made at a special sessions for a transfer licence under section 14 of the Act of 1828. This was refused, and the Quarter Sessions on appeal confirmed the refusal, assuming to do so as a matter of discretion. It was admitted that the applicant was a 'fit and proper person,' and that there was no charge against him.

"Mr. Etherington Smith now moved, on behalf of the owner and new tenant, for a *mandamus* to the magistrates. He urged that in the case of a transfer of a licence, especially in the case of an old house, there was a kind of 'vested interest' in the owner, and that there was not such an absolute discretion to grant or refuse a licence as in the case of a new licence. A new licence meant, he submitted, a licence to a house which had not been licensed before, and where the new tenant was a 'fit and proper person,' and there was no charge against him, the licence ought to be transferred, otherwise an outgoing tenant, giving up possession for a year, might lose the licence and seriously injure his landlord's property.

"Mr. Baron Pollock here asked on what ground did the magistrates refuse the transfer of the licence? Mr. E. Smith replied: 'It is believed that it was because they considered there were public-houses enough in the parish without this; that is, in the exercise of a general and absolute discretion.'

"Mr. Justice Lopes cited a text-book, in which it was said: 'In all cases of transfers of licences the discretion of the justices is absolute,' adding that he was disposed to agree in that view and thought it to be right. There certainly was a decision to that effect before the Act of 1872, but that is not now in point, and under the law as it stands there is not an absolute discretion to refuse the transfer of a licence to an old house.

"Mr. Baron Pollock said he should be sorry to lay down any rule which would limit the discretion of the justices further than it had been limited by the Legislature, but he should be still more sorry to give any ground for the belief that a licence in such a case was a kind of property in the landlord. It might be so virtually in some cases, and reasonably so, but that view must not be carried too far; and the notion that there was a property in the landlord in the licence could not be considered as sound law. The only question was whether the magistrates had a discretion, and the case referred to seemed to be in point to show that they had.

"Mr. Justice Lopes concurred, and held that in cases of transfer of licences the discretion of the magistrates is to be absolute. The application was therefore refused.

"Commenting on the case the *Manchester Examiner* says:—'The contention was, in substance, that when "a fit and proper person" was proffered as a tenant of an old licensed house, the

magistrates were bound to accept him, and had no right to consider whether there were enough or too many public-houses in the district. It was on this question that the importance of the judgment became most evident. Mr. Baron Pollock said he should be sorry to give any ground for the belief that a licence in such a case was a property in the landlord. The notion that there was a property of the landlord in the licence, he said, could not be considered as sound law. Both judges, in dismissing the appeal, affirmed the absolute right of the magistrates to say yea or nay to applications for transfers as they thought fit, and as the result of a reasonable consideration of the wants of the neighbourhood.'"

From the *Alliance News*, November 24, 1883:—

"MR. WILLIAM FOWLER, M.P., AND MR. J. A. PARTRIDGE ON THE LIQUOR QUESTION.

"In the course of a capital lecture delivered at the Devonshire Rooms, Cambridge, on Wednesday week, Mr. W. Fowler, M.P., presiding, Mr. J. A. Partridge, of Oxford, said drunkenness hinders the development of the manhood of the nation and mars its prosperity. Drunkenness is the voluntary principle applied to taxation by sots and fools. Why should the honest working man carry a drink-made pauper on his back? But he does if he pays taxes. 'One touch of the tax-gatherer makes the whole world akin.' It is said, and with truth, that the people can't get on the land; but drunkenness keeps them off, as well as bad Land laws. Suppose there are eighty millions of acres in the United Kingdom and Ireland, and that we saved sixty millions sterling yearly out of a hundred and thirty millions drink bill, and that good land can be bought for £60 per acre. In ten years the people might buy up ten millions of acres, or one-eighth part of all our land. Of this, I understand, the thrift and energy of Cambridge men has shown a good example. Take another instance as to trade. With a hundred and thirty millions sterling you might start twenty-six thousand trades—business enterprises—with £5000 capital for each, employing a hundred pair of hands, turning out £20,000 a year in goods, and paying wages £100 a week each. That would, in the whole country, employ 2,600,000 men, and make £52,000,000 worth of goods. Mr. William Fowler, M.P., said he agreed that the question of drunkenness wanted dealing with, and that the great question of the drink ought to be grappled with. How it was to be dealt with was a most important and very difficult question. He knew that some members of Parliament voted for Local Option who did not believe in it. He voted for it because he did believe in it—though not, perhaps, altogether in its application as Sir Wilfrid Lawson would apply it. He was for removing the

licensing power from the hands of the great unpaid, of whom he was one; but, whether it was to be done by a special board or by the town councils was a question to be decided. He was not very much in favour of licensing systems of any kind. From what he had observed in America and England, he had come to the conclusion that the system was the cause of so much trouble and misery, that it was almost, if not quite, impossible to mend it. There had been a good deal of stir lately about the condition of dwellings in London; but he thought he had seen in the country cottage property quite as bad as any that could be found in London. He did not know any greater disgrace to the country than some of the cottage property. They would never mend this state of things till the mind of the people of England was moved on the subject. The remedy laid very much in the hands of the people themselves. As soon as they reformed their habits they would refuse to live in such places."

From the *Alliance News*, July 31, 1880:—

"COMPENSATION TO PUBLICANS.

"One of the most striking features in connection with the discussion of matters relating to temperance legislation is the prominence given to the question of compensation. It is rarely that any of our public men refer to the question without distinctly acknowledging the right of the publicans to compensation in the event of their trade being disturbed by adverse legislation. It is rather matter for congratulation than otherwise that this question of compensation is being pushed so much to the front, because when one of two belligerents commences negotiations as to the terms of peace, it is a good sign that hostilities will soon cease. Hence prohibitionists regard with some satisfaction this cry for compensation, taking it as a 'sign of the times' that the 'beginning of the end' of the struggle with the traffic is already present with us.

"It is observable, however, that we have never yet had any specific statement of the claim to be put forward on behalf of the liquor men. It is dealt with in vague generalities, such as that 'there ought to be fair and just compensation paid to those who are engaged in a legal business if it is suppressed;" but we are never told what would be 'fair and just compensation.' Without asking our opponents to give us a fully worked out plan, we do think it would materially assist the discussion if we had a distinct definition of the principles.

"Now, in the case before us there is no property taken—not a single brick or stone is removed; the barrels and bottles are left where they are; the furniture, the glasses, and the drink are left in the man's possession. He can do what he chooses with them, they

are his to keep or sell—except the drink, which he may not sell; he is at liberty to put them to some other use, and to invest his capital in some other undertaking. All that the prohibitory law would do would be to prevent him from using his property for a particular purpose. Few people will care to contend that the State has no right to determine the uses to which a man may apply his property. That is a thing which the State does continually, to the great benefit of the people at large. Clearly, then, as no property is 'confiscated,' but all is left with its real owners, the case does not belong to that class to which the rule we have just laid down can be applied.

"But other ground is taken up, another position is assumed, which we will endeavour to state as clearly as possible. It is (1) 'That the State having recognized the legality of the trade, by giving it the sanction and protection of the law, cannot change its policy in regard to it without providing against loss to those whom such legislation has induced to enter into the trade.' (2) That while licences are granted for one year only, there is a moral understanding, strengthened by universal practice, that the licence shall be renewed if the licence-holder has not been convicted of an offence against the law. These two propositions contain everything of importance which has been urged in favour of compensation. The first of them seems to imply that if a trade is legal those engaged in it are entitled to compensation in the event of its being suppressed. Now, all trades are legal which the law does not prohibit. It does not require an Act of Parliament to say that the trade in a certain article is legal. The absence of legal restraint is all that is required in order to establish its legality. The point to be kept in mind is this, that special legislation does not make a trade legal, such legislation being usually undertaken for the purpose of restriction rather than that of giving or assuring liberty. If, for instance, slavery were permitted in our country, and the buying and selling of men and women were not prohibited by law, if there were no laws whatever bearing upon such traffic, then it would be perfectly legal. But supposing the Government, for purposes of revenue, or the prevention of abuses, gave orders that no person should be allowed to buy and sell slaves except those who first obtained a licence from the State official, would the trade be any the more legal on that account? Not in the least. So far as it was allowed it would be legal, just as it was before, but no more and no less. We claim, then, that so far as legality is concerned the position of the liquor traffic is no better when conducted under licence than if it were free. It may be dealt with in the same way and upon the same terms as any of the ordinary trades with which Government sees fit to interfere. This is a point of no little importance to our argument, for we go on to point out that the State has the right to restrict or suppress any trade in the interests of the public

without having regard to the effect upon the pecuniary interests of those concerned. Nor does the State lose any of its rights by continuing a certain policy for any length of time. It is always competent to change its policy in any direction which the public good demands, and at any time the public voice decides through its constitutional organs. It is, however, alleged further that this special legislation has induced men to invest their capital in the belief that State policy would remain the same. In other words, they went in for the great gains which a valuable monopoly ensured, and now they are met with the great risks which always accompany great gains, they lay the blame upon other shoulders, and ask that they shall be compensated because they may not continue to buy, sell, and get gain in that particular way. They are simply speculators whose calculations have turned out wrong, and who therefore may claim the nation's pity, but not the nation's money.

"The history of liquor traffic legislation throws a light upon this subject, which does not lend much colour to the publican's claim, but rather helps to show its hollowness. Let us look at some of the facts which history reveals, taking those which have the most direct bearing upon the subject under consideration. In 1487 an Act was passed empowering magistrates to suppress the liquor traffic wherever they thought fit, thus giving the magistracy a prohibitory power, but no provision was made for compensating those who were suppressed. In 1552 all taverns were suppressed by Act of Parliament, with the exception of forty in London, three in Westminster, eight in York, six in Bristol, and in every other town two. The first of these Acts was a permissive prohibitory one, providing for prohibition by 'local option;' but the latter was almost entire prohibition by imperial enactment, and the exercise of the power was not trammelled by considerations as to compensation. At a time when precedents are so much sought after and so highly valued (and the older they are the more valuable they seem to be), it may not be out of place to point to these two instances of legislative suppression without compensation. But to come to a time nearer our own, we will notice the Beer Bill of 1830. The Government of that day, impressed with the state of the country as regarded intemperance, were moved to attempt something in the shape of a remedy, and carried through Parliament the Beer Bill. The effect of this measure was the establishment of a new branch of the liquor traffic separate and distinct from that already in existence. Licences were granted to all and sundry who chose to fulfil the conditions for the sale of beer. We need not stay here to consider the wisdom or folly of this measure; we are more concerned with the effect which it produced upon those who had previously enjoyed a complete monopoly, and we are still more concerned with the motives by which Parliament was actuated and the object it

had in view. Parliament thought that by the establishment of a set of houses for the sale and consumption of beer, people would be weaned from spirits, would cease to patronize the licensed victualler, and take their money to the beerhouse-keeper. Here, then, we have this fact, that Parliament passed an Act which admitted another class of men to a share in the liquor monopoly with the distinct purpose of damaging the interests of the publicans. Parliament intended that it should be so, it hoped and expected that it would be so, and it did that deliberately without providing for compensating those who would suffer. The publicans felt that they were not being fairly dealt with, and influenced their friends in Parliament (they have never wanted friends there) to oppose the measure, which was done both in the Lords and Commons. The Chancellor of the Exchequer (Sir H. Goulbourne) admitted that 'diminution of the present value of their capital would follow the adoption of the Bill,' but the only alternative before him was this—'would he lean towards the supposed interests of the smaller class or towards that of the community generally? This being so, he could not hesitate upon the decision he was bound to take under such circumstances.' This was a clear and bold enunciation of the principle we are endeavouring to lay down, that when the pecuniary interests of a class come in contact with the welfare of the people generally they must be sacrificed. In the end the publicans had to submit to a new rivalry which might work upon them serious loss, and in fact was intended so to do.

"A more direct interference was that of the Forbes Mackenzie Act for closing public-houses in Scotland during the whole of Sunday. This Act took away about one-twelfth of the time during which Scotch liquor-sellers had been in the habit of conducting their business. This was a direct attempt to diminish their trade, and consequently their profits, and there cannot be a doubt that most publicans in Scotland suffered considerable loss by the operation of that Act.

"Then, in 1860, we had Mr. Gladstone's Wine Licence Act, which established yet another form of liquor-selling, by permitting grocers and others to sell wine, and in some cases spirits, for consumption off the premises. Again, the argument urged in favour of this Act was, 'that people would be induced to purchase light wines at the grocers' and drink them under the restraining influence of home, instead of going to the public-house, where temptation to excess would be much stronger.' The House of Commons accepted the argument, and passed the Bill in the full hope and assurance that the publicans would be injured thereby; and if such injury has resulted, it has been done without even the mention of such a thing as compensation.

"The next Act of importance was that of 1869, introduced by Sir Selwyn Ibbetson, which placed beer licences under the control

of the magistrates and brought beer-sellers under a new set of regulations, by which the interests of many of that class were materially affected. There was one provision of the Act which illustrated our argument in a very special manner. Under that Act the rental qualification for beer-houses was very considerably raised, and all houses which were not up to the required standard forfeited the licence. It is true that the magistrates gave twelve months' time to afford opportunity for increasing the value by the addition of extra rooms; but still the fact remains that there were large numbers of beer-sellers who had to forfeit their licences through no fault of their own, but simply through the operation of an Act of Parliament. Here were a number of men who held licences for the sale of beer on terms dictated by the State; they had done nothing in violation of those terms; but the State arbitrarily altered the conditions and imposed terms they could not fulfil, with the result that they had to relinquish their 'vested right' and sacrifice their 'vested interest.' In Liverpool alone the number of beershops was reduced by about 300. All these people were compelled by Act of Parliament to retire from business without compensation. And this cannot be set down as an unforeseen result; the very purpose and object of the measure was to get rid of the 'low beershops.'

"In 1872 Mr. Bruce's Bill was passed. Under this Act the hours of sale were reduced by about twenty-four hours a week, some time was taken off every day of the week at both ends of the day, and the houses were exposed to stringent inspection and subjected to irksome regulations, of which the keepers loudly complained. Publicans cried out that their interests were being hardly dealt with. It is extremely probable that every publican in the kingdom was injured more or less by the working of this Act. But the cry for compensation was not even raised in its feeblest form. Everybody agreed that the public good ought to be served even though publicans should lose.

"The last instance of Parliamentary interference with this trade is that of the Irish Sunday Closing Bill. It will be easily remembered how hard the publicans fought against it—how they declared, time after time, that it meant ruin for them, as Sunday was the principal business day with them. But in spite of these declarations the Bill became law. This Bill afforded an opportunity of raising the question of compensation, which was done by Mr. P. J. Smythe, who moved that the Bill be recommitted in order that a clause might be inserted providing compensation to those who would be injured by it. The House rejected the proposal and refused to entertain the idea at all.

"We have cited these manifold instances of Parliamentary interference in order to show that the conduct of Parliament in this matter lends no support whatever to the theory set up by our opponents. These facts establish one thing of importance in

relation to this question—that the State has a perfect right to deal as it will with this traffic without regard to the pecuniary losses of individuals. The logic of these facts seems to be this:—If the State has a right to damage the interests and depreciate the value of the publicans' property to a small extent in order to serve the common weal, it has the same right to damage them to any extent for the same purpose. If it be granted that Parliament has the right to take away one-twelfth of the publicans' sale without compensation, it cannot be denied that it has the same right to take away the remainder. If for a given reason the State can rightly cause a man to lose a penny out of every shilling without compensating him for his loss, it has the same right for the same reason to cause him to lose the other elevenpence. There is no difference in principle; it is simply one of degree. It is just as right or just as wrong to rob a man of a penny as a pound.

"A Working Man."

From the *Alliance News*, August 7, 1880:—

"Compensation to Publicans.

"We now proceed to examine the second part of the case we have sketched. It is based entirely upon the statement that the licensing authority has no power to withdraw licences, except in the case of those who have been convicted of offences against the law; all others they are bound to renew. As a statement of the law, we hold this to be incorrect; but it undoubtedly is according to the practice of the courts. This is the strongest point our opponents urge, but we shall endeavour to show that it is far too weak to bear the heavy claim they seek to rest upon it. The most that it proves is that at present the magistrates do not exercise power to refuse the renewal of a licence, except for certain reasons. But that does not in the least debar Parliament from expressly conferring the power on them. If Parliament did, any licence renewed afterwards would be renewed clearly subject to being revoked at the next licensing day. To say that the magistrates do not possess a certain power of refusal, does not limit the right of the State in conferring the power. And if the State may rightly confer such a power upon magistrates, it would be equally right for it to place the same power in the hands of the people or their representatives.

"What is this licence for the loss of which so much money is claimed from the State? It is simply a legal instrument, giving effect to an agreement between the State on the one hand and an individual on the other, by which the former gives to the latter permission to sell intoxicating liquor for a given period in consideration of a specific sum of money. All licences are granted 'for

one year, and no longer.' This is most distinctly stated on the back of every licence, along with the other conditions as to permitting drunkenness and disorderly conduct. What may be termed as the contract, then, is neither more nor less than permission to sell liquor at the times and in the manner prescribed by law, for the period of twelve months. When the term for which the licence was granted has expired, and the licensee has been allowed to carry on his trade according to agreement, *he has then got all he paid for.* He paid for permission to sell, he got it, made the most he could of it for his own benefit; and, we submit, it is quite competent for Parliament to make a law instructing those who act in its behalf not to renew the engagement.

"Another important point is the right of Parliament to alter the terms and conditions of licences. These are not permanent, but are, on the contrary, generally being changed. The State has always asserted its right to alter, in any way it thinks fit, the laws under which licences are held. It may cause licences to be granted for six months, a year, or five years; it may decide the days and hours during which the business may be conducted; and at the expiration of one licence it can amend, alter, curtail, extend, destroy, or continue any of these conditions as affecting the next year's licence. Now it is claimed on behalf of the publicans that each individual holder of a licence has a vested interest in his licence for a longer period than that for which it has been granted. If that be so, then he must have a vested interest in the same kind of licence for next year as the one he has this. For instance, a man having a licence to sell on seven days of the week during 1880 has, according to this theory, a vested interest in a seven days' licence for 1881. If a licence, once granted, becomes the property of him who gets it, and his privileges under it are curtailed by one-tenth, his 'property' is damaged to precisely that amount. But has the State recognized a licence as property in that sense? We have already seen how the State has terminated the seven days' licence in Scotland and Ireland, and substituted for it a six days' licence, thus diminishing the value of the property without granting any compensation whatever. Either the State has acted unjustly before, or it has now the right to carry the same principle further, and apply it to all the days of the week. The licence cannot be a 'property' one day of the week, and something else another. The Duke of Wellington was in the right when he said, in the discussion on the Beer Bill, 'The fact is, those persons hold their licences from year to year, and at the expiration of each year all right ceases, and it is only the renewal of the licence which continues the right.'

"This leads us to another point, viz., that a licence is a privilege and not a right. Being a privilege, it is not something a man can claim as by right. No man can go before the magistrate and demand a publican's licence as a right; the only right he has is to

ask, and it is the right of the magistrates to grant or refuse. All the rights in the case belong to the State, and the privileges only belong to the publicans, and these privileges are conferred upon them by the law, and can be modified or abolished at the will of the law-makers. It is absurd to argue that because the State grants a privilege once, it is bound to do so to the end of time. The very power to grant or refuse includes the power to withdraw, otherwise the State can only act in one direction. When this privilege has been granted, the man who receives it usually makes money more rapidly and more easily, perhaps, than he could in any other business. He does so, not because of his business ability, but simply because he is permitted to carry on a trade which those around him may not. He is relieved from the pressure of open competition. He is engaged in a protected business. If the privilege which allows him to do this be withdrawn, what injustice is done to him? He is allowed to retain the money he has made, and the property he has accumulated; he is simply told he must not make any more in that way. And then, forsooth, he is to be compensated, and for what? For the money *he would have made!* Not compensation for actual loss, but compensation for loss in prospective!

"It will be readily conceded that the liquor traffic derives its special value from the fact of its being a monopoly. It is this which makes men so anxious to get into it, and to pay so much more than the actual value for premises, goodwill, etc. This is not a value which has been created either by the publican's industry or capital; it is altogether outside of and independent of any action of his own; it is a fictitious value created for him by the State. What the State has created it can destroy. There is one method of doing so which no one would dispute the right of the State to employ. It might destroy the monopoly by making the trade free; then this special fictitious value would be entirely gone, and no one would have the audacity or the impudence to ask for compensation in that case. It is perfectly reasonable to say that if the State has a right to destroy the monopoly by legislating in one direction, it has just the same right to destroy it by legislating in another.

"There is just one other point which has a special bearing upon the question of permissive prohibition. As everybody knows, publicans are licensed to supply a supposed public want, and not that they may make haste and get rich. If it could be shown that the public 'want' no longer existed, then the reason for granting licences would be gone; and if the State made it a condition of licensing that the ratepayers of each district should be in favour of it, it would only be exercising its right to impose fresh conditions.

"We think we have now fully shown that this demand for compensation is unreasonable, and that the principles of 'justice and fairness' would not be violated by its being disregarded. There may be cases of special hardship, where the instinct of generosity might

prompt some sort of relief; but that would be far different from a wholesale compensation to all the multifarious interests of business and property connected with the traffic. We cannot help thinking that the reason why the publicans and their advocates insist so strongly upon this claim is not because of what they will get so much as of the use they hope to make of it in delaying legislation. They evidently regard it as a sort of 'red rag' to frighten John Bull with; but they would better beware how far they press their claim, for there are not wanting indications that if the extinguished part of the traffic is to be compensated it must be at the expense of the remnant. However, it is to be hoped that people and Parliament will not be deterred by any oblique considerations upon this point, but that they will give effect to a policy of justice and fairness towards the people, and that they will not be dismayed by the audacity of a great monopoly which has unfortunately been allowed to grow up, and which has grown at the expense of everything truly great, noble, and good.

"A Working Man."

From the *Alliance News*, April 9, 1881:—

"On Compensation to Discarded Drink Traffickers.

"At a meeting at Stratford, Essex, on March 16th, the eminent brewer, Mr. E. N. Buxton, avowed himself in favour of Local Option, if interpreted as he and the Right Honourable John Bright interpret it. But he added that he claimed compensation, though whether to publicans, to brewers, or to distillers—or to all of them—the reports of his speech leave obscure. Moreover, by his tart remark, that many people want to do good, provided that it be *not with their own money*, he very distinctly implied that it is dishonest to refuse compensation to traders in drink when their licence is not renewed. But while he distinctly claims compensation, he leaves us wholly in the dark on what grounds he imagines his right to rest. Nothing is easier than to say, 'It is our right,' and give no proof; and such a procedure leaves us without any argument to attack. It is, we suppose, a prudent method; such as a Lord Chancellor counselled to one who was about to become a colonial governor: 'Announce your judgments simply, but never give reasons for them.' Nor is it only those in the trade who so deal with us. Mr. Herbert Gladstone recently seemed to announce in his father's name that compensation to the trade would be an absolute condition of any such reform as we seek; but he gave no reason whatever for compensation; hence there is nothing to refute. The Right Honourable John Bright certainly in one speech gave a sort of reason; and for want of something to grapple with, we shall give more attention to his argument than it at all deserves. He

said the precedent of compensation to slaveholders in 1833 was a reason for compensation to drink-sellers.

"Now, first, if precedent is to weigh anything, we have an overwhelming precedent on the opposite side. In a multitude of rural districts the squires, lords, and magistrates have totally exterminated drink-shops. Above ten years ago a Committee of the Convocation of Canterbury published the names of more than fourteen hundred parishes and townships in that province alone, where this process of extinction was complete, and was acquiesced in. It was done by the mere will of the landlords, over the heads both of the people and of the drink-sellers. No meeting of popular indignation can be quoted to support Professor Fawcett and the late Mr. Stuart Mill on the one side; nor any appeal to a court of justice on the part of publicans, brewers, or distillers, to demand compensation from the high-handed landlords and magistrates. They have everywhere submitted meekly, without complaint or resistance, to a happy extinction which began probably forty years ago. Such conduct of the drink traffickers is not merely a precedent —that word is too feeble. Their conduct is what Roman laywers would call a *præjudicium*, a weighty previous decision, and one pronounced by themselves. We say of them with Cicero, *confitentem habemus reum; i.e.*, we have an opponent, who, in a like previous case, confessed he had no claim, and, very wealthy though he is, wisely abstained from spending his money in an utterly hopeless lawsuit. It cannot be pretended that if the people vote down the drink traffic, a claim of compensation at once arises, which did not exist against landlords and magistrates when they extinguished the shops at their private will, and often for their private gain as well as their family comfort. No one bearing the name of Buxton will say that the pecuniary interest of a squire is a more sacred cause than the moral and material welfare of a community; nor do we believe that the Right Honourable John Bright will maintain that a landlord ought to have a greater right to extinguish a local trade at his private will than a local community to do the same thing by public vote. The demand of compensation from the public is simply monstrous from traders who never dared to claim it from landlords and magistrates.

"Nor is this the only precedent which utterly confutes the claim. In past centuries it was a received principle, acted upon unanimously, suddenly, and without compensation to traders, to forbid exportation of food, if food were scarce and inconveniently dear. For the same reason the conversion of grain into malt was occasionally stopped; and, however sudden the prohibition, no compensation was given. But to assert a negative may be imprudent. Can, then, Mr. Buxton adduce any instance of compensation in such case?

"We now turn to the Right Honourable John Bright's imagined

precedent in the compensation to the slaveholders. First of all, we deny that he has any right to call it compensation. 'Mr. Secretary Stanley' (afterwards Earl of Derby) did, no doubt, call it compensation, but protest against this word was instantly made by Daniel O'Connell, and nothing in the previous speeches and arguments justified the phrase. Parliament voted the twenty millions as a liberal gift to prevent the islands from going out of cultivation through the inability of planters to pay wages; so great was the waste and extravagance, so extensive were the mortgages. Trembling lest insurrection should ravage and swallow up their whole property, and conscious that the original kidnapping of Africans was illegal, the planters gladly accepted the ample gift; but had no sooner got it than they called it compensation, and before long declared it to be inadequate. But suppose the Right Honourable John Bright to be correct in calling it compensation, still it is a gross fallacy to represent it as a precedent applicable to the drink traffic; for the slaveholders had one very plausible argument, which may be called their stronghold, to which nothing at all akin can be alleged by the drink traffickers—namely, though the primitive kidnapping was forbidden by English statute, and the colonial law courts had no right to enact an enslavement which English common law ignored, yet as a fact they had winked at the illegality, and had treated the negroes as rightful property; and, what is more, the English courts had acquiesced in the same doctrine in cases which could be quoted. Nay, old Lord Stowell, a most revered judge, dishonoured himself by a decision in favour of slaves, as property, a few years before the Act of Liberation. Can the Right Honourable John Bright appeal to cases in which a publican has sold his (imagined) right to a perpetuity of licence, and a court of law has recognized the sale as a valid transaction? Until he can do so, we have a right to see in his attempt to make the cases parallel, a fallacy quite unworthy of a robust and honest mind.

"But that is not all. Though he is honoured by the title Privy Councillor, this argument of his for compensation denotes that he has not understood within what limits and for what good reasons precedent may be adduced in argument. Where justice points to a right and a wrong, appeal to precedent is wholly out of place. Only where there is no clear right and wrong can any weight be given to precedent. If an injustice has become ever so customary, that does not constitute a right; else slavery of the worst type would be justified by precedent. Precedent ought to be invoked only when by reason of the absence of adequate moral argument for right and wrong, good men are liable to quarrel about things in themselves indifferent. In such cases precedent is very valuable. Thus, when a king dies, in one country the chief lawyer, in another the chief ecclesiastic, in another the president of a senate or council, may have the duty of summoning the notables who are to pronounce

and proclaim the new sovereign. One method may be nearly as good as another; but unless in each nation precedent decide on the details, confusion and quarrel may arise. But where right and wrong are clear, to flee to precedent or analogy is the part of the sophist, not of the just man. Now in the case before us the right is perfectly clear, and if the Right Honourable John Bright does not see it, so much the worse for his intellect. No publican ever receives a licence to sell intoxicating drink for any previous services which he has done, nor for any personal virtue, but because it is presumed that the public interest needs him. He never receives a licence to last more than twelve months, and Mr. E. N. Buxton tells us that the licence confers a great additional pecuniary value on the house. This the publican, or the brewer behind him, receives gratuitously. What epithet but impudent justly describes the conduct of a man who declares that because a privilege is gratuitously granted him for twelve months, therefore he has a right to it for a perpetuity; and that if it is not renewed he has a just claim to compensation? The difficulty of reasoning against such pretensions is precisely the same as we encounter when an audacious man proclaims that man-stealing and fornication are legitimate. One knows not from what first principles to argue against men of this class."

From the *Alliance News*, December 10, 1881:—

"The 'Pall Mall Gazette' on Compensation.

"In a recent number, the *Pall Mall Gazette* remarked that 'it is already sometimes contended that if in the interests of public peace and security the State deems it necessary to deprive any section of its subjects of their lawful property, it is bound to compensate the sufferers. A public benefit, it is urged, should not be sought by the injury of individuals, and if the State confiscates the State should compensate. This principle, they say, was acted on in the case of the abolition of purchase in the army, in that of the disestablishment of the Irish Church, and in what some take to be the most crucial instance of all, that of the emancipation of the slaves in the British colonies. Even the holders of Scotch patronage were compensated under the Act abolishing patronage; and the admitted necessity for compensating the vested interests engaged in the liquor trade has hitherto been the most formidable obstacle in the path of temperance reformers. What are the answers to this line of argument?

"'In the first place, the cases quoted by way of analogy are not all of them real analogies. Compensation to publicans, for instance, has only been proposed in case they should be totally expropriated. In the same way the Irish landlords will be compensated whenever the tenants buy up all their rights and interests. Restriction is not

the same as expropriation. Where a Sunday Closing Act is put into force the publican is deprived by it of one-seventh of his means of earning a livelihood. Yet never either in Ireland or in Wales has compensation for this abrogation of a right of which the publican was previously in full possession been either paid or suggested. Take another case. Before the Licensing Acts were passed publicans were entitled to sell drink to children and drunken persons. For reasons of public morality this legal right, which, morally speaking, ought never to have been exercised, was taken away, to the publican's pecuniary detriment, but assuredly no one ever dreamed of offering compensation.'

"In a letter to the editor of the *Pall Mall Gazette*, dated Oxford, December 1, 'A. R. M.' writes: 'Sir,—In your article, in which you clearly demonstrated the injustice of a claim for compensation by landlords in Ireland who had secured compensation for themselves by rack-renting in the past, and who thereby had placed themselves in the position rather of debtors to their tenants than of just claimants for compensation, you alluded to the probability of compensation being due to publicans in the event of the houses which are occupied by them being deprived of the licences. These houses are licensed for the benefit of the public. The magistrates annually determine the continuation or withdrawal of the licence. If it is found that a licensed house in a certain locality is hurtful, and if, therefore, the licence is withdrawn, should compensation be given to the publican? Say that in a certain street, consisting of fifty houses of equal value, the proprietor of one of the houses shall have had sufficient local influence to obtain a licence for his house, the value of his house is at once doubled. The value of all the other houses in the street is probably depreciated on account of the nuisance created by the proximity of the public-house; on the extinction of the public-house, if compensation is to be given to any of the houses in the street, should it be given to the one which has derived great profits for many years on account of the fictitious value given to it in preference to its neighbours; or should it not rather be given to the houses which have suffered depreciation by reason of the disturbance created by an unpleasant neighbour? The rack-renting landlords in Ireland and the licensed house-owners in England have under the law long enjoyed the advantages of the law. They have both enriched themselves at the expense of others. They have both already received full compensation.'

"On the following day the editor of the *Pall Mall Gazette* said —'The precedent of the compensation paid to the West Indian slave-owners for the emancipation of their slaves is being diligently "worked" by others than Irish landlords. The chairman of the London Licensed Vintners' Protective Association has this week been over to Dublin to explain his views as to the necessity for compensating Irish publicans for the sacrifice of one-seventh of their

business by the Sunday Closing Act. "If restrictive measures were passed," said he, "why should not the licensed traders be compensated for the loss of their business? Surely they were as much and more entitled to compensation than the West Indian slave-owners were to compensation when the slaves were emancipated." The analogy holds as good in one case as the other. That is to say, it is equally worthless in both.'"

From the *Alliance News*, October 9, 1880:—

"PAPERS ON LOCAL OPTION, READ AT THE CHURCH CONGRESS.

"(*Rev. Canon Hopkins's Paper.*)

"WHAT DO YOU MEAN BY LOCAL OPTION?

"This question is sometimes asked, almost with an air of triumph, by persons who think that a satisfactory answer is impossible. The questioner is, of course, an Englishman. He will perhaps say that he knows the English people well; and that he knows their habits too well. He, for his part, thinks it dangerous to put power into the hands of the people, lest they should use it badly, and make matters worse than they are. Perhaps he takes a different line, and boasts that English people are free. He will oppose anything which curtails their liberty by one jot or one tittle. He hates the petty tyranny of self-righteous majorities. He stands up for the rights of suffering minorities. He is resolved at all costs to uphold the birthright of every Englishman (a right now largely claimed by English women too) to get drunk at his own expense, whenever and wherever he may choose!

"Passing by such disputations as these, without further remark, I will give an answer to the question: What do you mean by Local Option?

"By Local Option, then, I mean a branch of local self-government. Within living memory the area of local self-government has been progressively widened. Without at all ascribing perfection to this kind of government, I venture to claim for it that in all cases it has worked well.

"Modern sanitary legislation is an example in point. The first Public Health Act was a measure the general scope of which was to confer large powers upon specified local authorities, which the inhabitants of the locality were at liberty to call into active existence, or not, as they pleased. These powers enabled them to remove nuisances, to construct drainage works, to compel householders to connect their dwellings with the new drainage system, to provide a supply of pure water, and other things essential to the public health. There was an outcry then about the infringement of private rights. But private rights which had been proved to be

public wrongs were compelled to give way. An Englishman's house ceased to be his castle, so far that he could no longer turn it into a public nuisance, and set his neighbours' remonstrances at defiance. Every one was compelled to submit to authority. The best results quickly followed. Pig-styes disappeared from the back streets of our towns, cesspools were filled up, dust heaps and offal were swept away, poor people were enabled to breathe purer air, and little children were not so frequently, as aforetime, stifled in their infancy by sewer gas and foul stenches. Good people rejoiced, and a few malcontents, who used to grow rich upon the rents of over-crowded cellars and other fever dens, after making a snarling protest, in very shame shrank away and vanished into silence and oblivion.

"Local self-government is no new thing in England. It is older than the parish vestry, older than the Imperial Parliament, older than the venerable convocations of the Church. The sphere of its activities has widened itself into considerable breadth and variety. The people have a potential voice in the management of most of their local affairs, and in the expenditure of the rates they have to pay. Over and above sanitary matters, local officers and local boards or vestries have the control and management of highways, and public lighting, and fire-engines; of constables, of poor relief, and maintenance of lunatics, of elementary education; as well as limited powers to regulate village feasts, fairs, and statutes. In all these cases there are Acts of Parliament which confer powers and impose restrictions, and provide for official inspection and audit; but the executive is local, and the funds are raised and expended by local authorities.

"Local Option, then, is a new branch of local self-government. The advocates of Local Option desire to extend to the drink traffic the control of local self-government.

"If it be asked why a claim is set up for local control over the sale of strong drink, and not over the sale of bread, or meat, or calico, the answer is plain. The law has always controlled the sale of strong drink, and has required periodical certificates of character from all who apply for a periodical renewal of the licence which empowers them to sell strong drink. No new principle is asked for. Restriction and control have always been imposed upon dealers in intoxicating drinks, and never upon butchers, bakers, or haberdashers; or if ever, they are imposed no longer.

"The claim for local control over the granting, the renewal, the suspension, or the suppression of licences, rests upon clear and well-defined reasons. Why are licensing laws enacted? Why are licences granted? They are granted avowedly in the interests of the people at large, not of a class or section only. In fact, licences are avowedly granted—

"(1) For the benefit of the locality, *i.e.* to supply an alleged want or need.

"(2) For the protection of the locality, *i.e.* to take care that no harm shall be done to the lives, or the property, or the morals of the inhabitants.

"This being so, who are the best and fittest judges of these things? Is it better that the people most interested should judge for themselves, or that some other authority should judge for them? Let me see how the matter really stands.

"1. In the first place, the inhabitants of the locality are the persons for whose benefit the licence is granted. It is to quench their thirst that the drinks are sold. It is to supply their wants that the licensed house or houses are to be opened. Who, then, is likely to know what they really want so well as the inhabitants themselves? Who are so likely as they to stand out and make a determined resistance if an attempt should be made to issue licences, not for the benefit of the inhabitants, but for the benefit of some one else, who is to be made rich at their cost, and out of their hard earnings?

"2. Once more, the inhabitants of the locality are the persons who must suffer if licences are improperly granted, or if licensed houses are badly conducted. If a man or woman be turned into the streets drunk and disorderly, the inhabitants of the locality have to listen to all the quarrelling and filthy abuse, and noises, and blasphemous outcries which ordinarily go on until the drunkard becomes sober again, or is forcibly removed and locked up.

"3. Again, if a drunken man or a drunken woman commits a breach of the peace, or some brutal crime, the inhabitants of the locality often get a bad name and a foul reputation, besides having to pay the police who apprehended, the judge who tries the offender, as well as the prison officials, and the prison maintenance, if the culprit be convicted.

"4. Further than all this, if drunken men and besotted women neglect or refuse to send their children to school, the inhabitants of the locality pay the attendance and visiting officer, whose duty it is to look up neglected children, as well as the expenses of the proceedings; and they also suffer from the loss of time and labour which necessarily supervenes.

"5. Once more, if a working man, or many working men, frequent the licensed houses, and there squander away the wages which would otherwise feed and clothe and educate their children, some of the inhabitants of the locality have to go hungry and cold and naked and ignorant, while the sots are drinking themselves drunk, and others have to pay increased poor and education rates to enable the idle and the dissolute to prolong their wasteful orgies!

"On these grounds (and I must be content to state them rapidly and briefly) I assert that the inhabitants of the locality are the natural and fitting judges of two things—(1) of their own wants;

(2) of the best way to protect themselves from the manifold injuries which accrue from excessive or improper sales of strong drink.

"I rest my case upon the naked principles of common sense and common justice. If a gentleman who lives in a park and owns a whole parish can say, 'Our people do not want a public-house, and no one shall compel them to have one' (a kind of local option, be it observed, which prevails in more than eleven hundred parishes in the southern counties of England alone), then I contend that, in some way and to some extent which shall be real and effective, the inhabitants of any and of every locality, be it a street, or a district, or a town, or a village, ought to have the right and the power to say, 'We know our own wants, and we know our own minds; we do not want more, or we do not want so many public-houses, and we will not have them.'"

From the *Alliance News*, June 24, 1882:—

"HAS THE PUBLICAN ANY CLAIM TO COMPENSATION FOR THE LOSS OF HIS LICENCE UNDER LOCAL OPTION?

(*By the Rev. S. Edger, of New Zealand.*)

"As I did not hear Dr. Wallis's address on this subject, I can make no pretence of replying to it; but I am led to think that it failed, where all attempts to justify compensation do fail, so far as I have been able to see—viz. in giving no answer to two questions: For what specifically is compensation to be given? And who is to give it? It is no answer to the first to say, 'Compensation is to be given for the loss of the licence,' unless you show some particular injury or injustice that is done to the man from whom you take it; and that it was not in his power to avoid that injury or injustice. Numbers of people have things taken from them, directly or indirectly, for the loss of which they would never dream of asking compensation. I take from a man the property I have lent or hired out to him, and which he has turned to great profit to himself, because I am not satisfied with his use of it. I take away the liberty I have given him to shoot over my grounds, on which he has reared a lucrative trade in game, because I find he is doing mischief. Would any one presume to ask me to give him compensation? Certainly not; unless I had explicitly guaranteed to him continued possession, or had inflicted on him some injury that he could not avoid, over and above the discontinuance of the privilege and its fruits.

"It is no answer to the second question to say, 'He should be compensated out of the public revenue.' Whose is the public revenue? Have the owners of it been instrumental in any way in injuring the publican? Perhaps half of them have never consented to there being any publican; perhaps a great number of them have

strongly protested against it. Why take their money? Many people have exceedingly loose notions about public revenue, as though it belonged to no one, and might be used for any purpose; whence come many of the greatest calamities that befall nations. The public revenue should be used with more rigid conscientiousness than any private income. A gentleman said to me the other day, 'I know the publicans have no real claim in justice, but it would be worth while, and it's the easiest and cheapest way, to buy them all out, and have done with it.' To this I most seriously demur. It is never worth while to do wrong. Though it sometimes looks easy to do a little wrong, and secure a little right, it rarely turns out easy, and never cheap. To take public revenue for what it was not given, and without the owner's consent, is misappropriation —which is just a milder term for robbery; and, in the end, is neither easy nor cheap.

"I am wishing, therefore, to inquire into the grounds of compensation; and shall be truly glad if any one, whatever view he may take, can help me to throw any light on so important a question; which, it may be assumed, we should all wish to see settled in an indisputable manner.

"There are three kinds of right or justice; and if compensation is right, it must fall under one of three, for there is no other. There is natural right, between man and man; that is what any man as a man owes to or may claim from any other man, as a man. There is social or legal right, founded on the consent, expressed or tacit, of the many, growing out of the social structure, which is continually being more completely evoked. And there is the higher, moral, or Christian right, founded on true benevolence, or the second great command. These, I think, cover the whole ground; or, if not, I should be glad if any one would tell us of any other right, or point out anything erroneous in thus defining the ground. If we want to know whether a thing is right, it is of the first importance to commence the inquiry with a clear conception of all that is involved in the term 'right.' A man clearly has a right to his just debts, to common esteem for his fellow-man, that he may be treated as a man; to such freedom as does not infringe on another's freedom, so that he may act as a man—he has a right to all this, on the simple ground of his humanity. He has a right to that which the social condition justifies him in expecting, as a member of society, or a citizen. And he has a right to share in that goodwill which the highest law of reciprocal love makes every man's duty. If a publican who loses his licence has any claim to compensation, such claim must come under one of these definitions of right. This point should be here perfectly settled.

"I. What, then, is the natural right or justice of the case?

"There are two species of property to which every man has a natural right, and which you ought not to take from him without

adequate compensation. (1) Accumulated property, including all that a man has saved out of his industry, in any form whatever; and all that has been given to him by those having a right to give it. He has no right to what he has stolen, or what some one else has stolen and given to him. He has no natural right to that subtle kind of property which has been termed the 'unearned increment,' because that entirely depends on society, and, if any at all, must be a social or legal right. The property he can naturally claim must have come to him justly by industry or by gift. (2) The other species of property—the term property may appear singular, but is justifiable, as the only appropriate term—to which he has a natural right, is the free use of all his powers, without detriment to others, and the enjoyment of their fruits. It is wrong to prevent any man from cultivating all his faculties, and turning them to the very best advantage, supposing always that he injures no one else. I wish I could know whether any one claims any other right on natural grounds, for I have not been able to discover any not included in these. It needs great care all through to see precisely on what ground we can stand.

"Any violation of these rights would form good ground for a claim to compensation.

"Are they violated in the case we are considering?

"When you take away the publican's licence, do you touch his accumulated capital? Do you touch any of the enormous profits he has made? Do you touch any of his material in building, or in anything else? Not that I can see. What you do is to say that he shall no longer use it in any particular way, because that way of using it is found to be ruinous to public morality. Now, no man can have a natural right to use any of his property in such a way —being an injury to others. You would be wrong in depriving him of his property, but not in forbidding that injurious use of it. Just as a man has no right so to use his firearms as to endanger the lives of his neighbours—and you very properly prohibit his doing so. Suppose he were to say, 'By this prohibition you cut off one source of my revenue—for it is thus I test their strength and efficiency—and I claim compensation,' you would simply smile at his claim. You would say to him, 'It is your business to find out some other way of using them; but whether you do or do not, whether you can or not, you must not be allowed to endanger your neighbours' lives.' What society or the law might say to such a claim we shall consider by-and-by. To establish any such claim on grounds of natural right is utterly impossible. All that he has a natural right to is there untouched, and he can have no natural right to any use of it that is fatal or pernicious to others. It cannot be too often repeated, as lucidly evident, that before you can establish a claim to compensation, you must show that some right has been violated.

"Though it is not essential to the argument, it strengthens it, that even if any claim were allowed, it would be impossible justly to estimate it. For you would have to find out all other uses to which that property could be put, and their values, and by comparison to strike the balance, before you could arrive at a fair result —a manifestly impossible thing.

"Or do you interfere with the man's exercise of his powers and energies? I should readily grant that any such infringement of his natural rights would form an indisputable ground for compensation, since there is no natural right so perfectly beyond question as that of the use of all one's powers for the great ends of life—always under the condition, without injury to others. Suppose, then, a man has spent time, labour, and money in the cultivation of his powers, in the attainment of special aptitude for any calling, being both legitimate and not injurious to others; and suppose that then, on grounds of public (or private) utility, he is forbidden to exercise that power or skill, the source whence that prohibition proceeds is certainly bound to render compensation. No doubt this feeling is in the minds of many, and is, I think, better founded than any other. In some cases it may be well founded. I should be quite prepared to admit it, exceptionally, so far as providing some other opening. As, for instance, in the case of poor widows and worn-out decrepits. But then this is purely exceptional, and must be so treated; not in the very least degree touching the general question.

"On the general question it has to be considered that no special training is required by the publican; that in no calling is there less exercise of any powers, either bodily or mental—which accounts for the fact that those who fail in anything (or everything) else take to this; that any powers employed in this could be better employed otherwise; that in taking away the licence you leave untouched the best part of his calling as hotel-keeper; that if he was ever fit for anything else, he ought to be just as fit for it now, and if not fit for anything else, then his proper place is some refuge for the destitute.

"But, even beyond this—very much so—it may be said, without fear of contradiction (it has repeatedly been said by many of those who are best able to judge, publicans themselves), that any other exercise of a man's powers would be preferable, better for the man himself, but for the single circumstance, that no other offers such facilities for making great and rapid gains with very little labour.

"It is impossible to substantiate any natural right to the 'goodwill' of the business; for if any right exists, it must rest on social or legal grounds, since the business depends entirely on society and the monopoly granted by law, which can never constitute natural right.

"Thus, I think, we have disposed of the question of natural right, and any claim to compensation founded thereon. This is

the largest and strongest part of the question, though perhaps not the most difficult, since natural right is both universal and perpetual, which, in the very nature of things, no other kind of right can be.

"II. What is the social or legal right? There are two distinct ways of putting this:

"(1) I hardly think any one will demur to this principle: That it is not just that law should confer any special privilege on any man, or continue him in the enjoyment of it, except on the ground of some benefit rendered by him, as an equivalent for it. This is, indeed, a fundamental principle of all impartial legislation, as opposed to class legislation, which is always unjust. So perfectly clear is it, that no man ever questions it, unless his self-interest comes in and gives a bias. And, without exception, the man who then questions it will be the first stoutly to affirm it against any other claimant to be so exceptionally treated. I know there are people who seem to think that if you only put a wrong thing into a law, you make it right, and so never inquire whether the law itself is right. I do not see much use in arguing with such people; no argument ever touches them. Were they capable of seeing an argument, they would not need showing that no law can make a wrong thing right, and no wrong law can ever originate a legal right. We are considering rights. This is of most essential importance; because you can never establish a claim until you have found a right. You must therefore show that the law is right in granting to the publican the special privilege of the licence. This can be done on no other ground than that of some benefit rendered by him. Surely we have come to a deadlock in the way of compensation here. Remember the law has no right to confer a privilege without benefit rendered. No right, no claim. Therefore no claim without benefit rendered. No man who knows what he is talking about can deny that logic. What benefit, then, has the publican rendered for the privilege of his licence? It is useless to talk about accommodation, convenience, etc., for these now have nothing to do with the licence, though they once had. With all the thousands of houses of accommodation without licences; with the small accommodation—comparatively—for the extent of the property, with licence, it would be waste time to argue on that ground. The only question is, has the licensed sale of alcohol rendered any benefit? For an answer to that question I will appeal to others.

"I would ask the thousands of judges, magistrates, gaolers, keepers of hospitals and asylums, superintendents of police and policemen, who have borne testimony thousands of times, that the service rendered has consisted in the production of crime, disease, insanity, and every form of human wickedness and misery. I would ask the thousands of ministers and medical men, who

would answer:—the first—that it is the great source of irreligion; the second—that it prodigiously and inevitably swells their profession. I would ask innumerable philanthropists and reformers, who mournfully lament that it is the arch-enemy of all reform and of all benevolent aims. I would ask the millions of injured women and degraded children, whose bruised bodies and silent tears would with eloquent pathos implore that such services might be rendered no longer. I would appeal to the myriads of the dead, dead through drink, whose history is still vocal with the anguish and despair that found no utterance from the living lips. And I know that from this immense crowd of witnesses would come the deep, heartfelt answer, No! The only service rendered is recorded in blood and tears. And what privilege can that justify?

"I must keep the argument fast to this point. No service rendered for it, the privilege of monopoly that the licence confers on the publican is legally and morally unjust. Are you going to compensate a man who has unjustly enjoyed a great commercial privilege, because you say to him, 'We can no longer continue this injustice in your favour'? That is neither law nor social equity. Both would say, 'The claim for compensation lies rather the other way.'

"Mr. Chamberlain, M.P. for Birmingham, uses the following language in reference to the Irish landlords:—'I cannot conceive that they have any right to claim compensation for restriction and limitation of powers which they ought never to have been permitted to enjoy. In our English legislation there are numberless precedents in which legal rights have been found to be in conflict with public morality and public interest, and have been restricted and limited; and I am not aware of any such cases in which compensation has been given to those who have been thus treated.' This is from an article in the *Nineteenth Century*, the writer of which is trying to disprove Mr. Chamberlain's argument. But the only case he brings forward is that of slavery; while I cannot discover in the article one single intelligible position he takes, still less makes good, against Mr. Chamberlain's clear statement.

"(2) The other way of looking at it is this: A privilege that the law bestows the law can revoke, provided that no agreement is broken, no promise violated, no understanding set at nought. This can require no further proof. It is so obvious that attempts are always made to bring in tacit promises or understandings; but that cannot be done. No licence is perpetual. Why is it not made so, if that is the intention? Every one knows that a proposition to grant such licences would elicit as indignant a resistance as did Mr. Gladstone's audacious and insane proposition to license railway carriages. It is all very true that the withholding a licence previously granted is not the rule, but it is often done, as recently at the Thames. There and then Mr. Ehrenfried claimed damages.

Not a little instructive is it that a journal, famous for its advocacy of compensation, told us on that occasion that if Mr. Ehrenfried did not obtain damages, that would settle once for all the question of compensation. We know he did not obtain damages. That, however, did not settle the question of compensation; but this did:—That he durst not take his case into any court, because he knew, as every one knew, that neither law, nor equity, nor social propriety could have awarded him one penny. It may be true that men presume upon the renewal of the licence, just as they presume that a volcano will not burst out again because it is now silent; though it was silent before it buried in ruins or shook to pieces whole cities, with their living multitudes. If men choose to presume, they must in either case take the consequences. It is a miserably poor ground for compensation, that when a man has met a probability with his eyes wide open, the probability has become a reality. I can grant that, forty years ago, a publican might plead very fairly, 'We ought to have some notice of the withdrawal of this privilege.' But I submit that forty years is a very liberal notice. They had that notice then, such notice as all wise men observe (in the signs of the times), and it has been repeated incessantly, ever since, underlined, and in all sorts of conspicuous colours. If they will not take it, that is their own look-out. With the agitation that has gone on for forty years—with the actual adoption of prohibition in almost innumerable places, and compensation never thought of in a single instance—with the rapidly growing conviction that come it must—with the admission of Governments that something of the kind is absolutely essential; if the trade will not accept the notice, I see not how any rational man can wish to compensate it for such enormous blindness or stupidity. That is one advantage of the gradual progress of the question—which is all that its advocates desire—that every man has due warning. But if he will not be warned, there is no help for him; he must go down in the storm that he has long seen coming—like all other such men—losing through his wilfulness what, without any trouble, he could in due time have saved from ruin.

"Thus have we disposed of the social or legal right, unless it can be shown to rest on some ground that I have not been able to discover.

"III. I should admit that there may be still higher grounds on which this question should be considered—higher than either that of natural right or that of legal or social right—that high moral ground on which purest principles of Christian nobleness or generosity should control our conduct. For there are occasions when moral considerations may compel us to a course of action which could not on any ground be claimed from us by others. As I, an individual, may feel myself constrained to conduct which no one could demand of me, so may it be with a community or a body

of men. We can then imagine that the publicans may be placed in a position such that we should feel it incumbent on us to make the compensation which they would have no ground for claiming. This was the ground on which compensation was given in the only case brought forward in this matter—that of slavery. It is the ground on which it might be justified, not as a precedent, but as something new and unexpected in the world's history. Since then other new principles have come to light.

"Supposing a man, shut out from profitable employment by a course of events involved in the public welfare, under these conditions—that he has not had adequate opportunity to secure himself against injury or loss, and that he is not interfered with as being knowingly in antagonism to the public welfare — the highest principles might compel us to proffer compensation. There are many such cases in which, I think, a right state of society would cheerfully afford help which the individual could not claim, and any claim to which would certainly not be listened to. But clearly no such moral principle could have any force where the individual has had ample opportunity to protect himself, or where he is interfered with in an illegitimate course, *i.e.* one opposed to the public interests. And here it is important to notice that in reasoning from this higher moral ground no occupation can ever be legitimate that is opposed to the public good. No law can ever make it so; and all the talk about a legitimate calling or business is, on this ground, quite beside the mark. When we are pretending to stand on high moral grounds, to talk about an honourable calling, a legitimate business, which is ruinous to public morality, is to talk nonsense. If, then, the publican could show that he had not had the opportunity of protecting himself from loss, and that the trade carried on under the licence had not been a public injury, I should admit that so far we might feel bound to give the compensation, which, however, he could not claim. But how is it possible that he should establish either of these conditions, since, as we have seen, he had forty years' warning, and since overwhelming testimonies declare his trade utterly pernicious, of which testimonials he is not and cannot be ignorant? Now it is not an advantage, and therefore not commended by any moral principle, that private personal duty (to take warning) should be interfered with through public charity; and it is an immense wrong, by any action whatever, to put a premium on conduct that is prejudicial to the welfare of the community.

"That is one view. But there is another, as we have seen from the question, Who should compensate? The suggestion which has been made, that the trade should compensate its exiled members, has everything in its favour, and should, as it probably will, secure consideration; but that is hardly the compensation that is asked for.

"Or, again, if it were possible for those who consider that they

have received benefit from the publican, and are therefore under some obligation to him, it might be well enough that they, in dispensing with his services, should give some compensation. But it is to be feared it would be but small. But certainly not that the public should—more than half of whom repudiate his services, and consider themselves grievously injured by it. To take their money to compensate the publican is a far more immoral act than to withhold from the publican that to which he never really had any right. Looking at things from the higher moral teachings, there is nothing for which men may be so severely condemned as the reckless use of public money. But all use of it is such which leaves out of consideration the object for which, and the true interests of the parties from whom, it was raised. When, then, we bring together the injury inflicted on adjacent property by granting the licence, the injury inflicted on the public by the exercise of the licence, and that all the gains made under the licence are made at the expense of the public, there is not a single moral principle that would not pronounce it an enormous crime against the public to take public money to compensate the trade for being hindered from continuing this prodigious depredation on public property. Nor do I think that any one dispassionately looking into these definite points could well come to any other conclusion—a conclusion not generally reached only because few people will take the trouble to examine with care the ground on which they stand.

"IV. Here I might close the argument, but that some might think I ought to take more notice of the two points, neither of which, however, form an essential part of the argument, of policy and precedent. To the question whether it might be politic, though not just, to give the compensation in question, I should reply that there may be cases in which a wise policy takes even higher ground than that of exact or abstract justice; but in no case, especially where the public is concerned, can it violate the principles of justice, as it undoubtedly would in this case.

"As to precedents, I am not aware of any in favour of compensation except that one often referred to, of slavery in the West Indies. But the force of that, as an example for this, completely fails, inasmuch as there compensation was given for property actually taken away or destroyed as property—the slaves. There is nothing of the kind here. Nor is it in the least likely that that experiment of the £20,000,000 would be so much as suggested by any one in this day; an experiment signally reversed in the case of the Southern States of America. The crime of slave-holding is better understood to-day. But, on the other hand, the precedents against compensation are simply innumerable and overwhelmning. I have already referred to the number of cases in which the trade is suppressed, without any thought of compensation—Sunday closing. Constant changes in trade destroy the livings of thousands upon

thousands, who never get a penny of compensation. Railways shut up hosts of roadside houses, destroy the property of coach proprietors and drivers. Nuisances of all sorts are suppressed with great loss to those who profited by them. Personal inconveniences are constantly inflicted on individuals where the public good requires it—far too numerous even to name—compensation in no case being allowed. That the principle is as well established as any known law, an exceptional departure from it being asked only for this beneficent trade.

"And now to sum up our case for the jury. They would be asked for a verdict on these points:—

"Can the trade establish any valid right, on any ground, natural, legal, or moral, for the enjoyment of a monopoly privilege, of great commercial value, to the unlimited injury of the public?

"Is any right violated or wrong done by revoking this privilege, on the ground of this injury?

"Can any claim for compensation exist where no right is violated and no wrong done?

"On each point the verdict would be given, without further consideration, against the plaintiff.

"The whole history of this melancholy question of alcohol, written not by me, but by others who could not falsify, in deepest black or intensest scarlet, suggests a different solution of the problem. If the trade generally—following the example of an extremely minute fraction of it—listening to the reiterated condemnation of the highest unimpeachable judges—looking on the horrible deeds done—could rise slightly above that contemptible measure of things, money value—contemptible when put in the scales against physical health, prolonged life, uncorrupted character, pure hearts, strong minds, peaceful homes, honour in the Government, integrity in the people—it might appear not so very great an act of self-sacrifice to say: For the world's good we will voluntarily renounce the gains that have never seemed to us perfectly clean. And whether or not compensation came in the shape of money, it would have a ten times better justification than it has now, while it would assuredly come in the shape of respectful admiration of a deed well done, and the still better form of a sense of living and working for the world's progress, instead of its deterioration. But if these have little or no weight, there remains but the single alternative—that what is not voluntarily surrendered will, sooner or later, cease at the stern command of social, mental, moral necessity; as some one, able to form a judgment, has said to mankind—'If you will not destroy the liquor traffic, it will destroy you.' Every principle of human nature and of the right constitution of things must alter, or every day that more reveals that startling but inevitable fact puts compensation (to the destroyer of humanity) still lower down among the things never to be thought of."

[The foregoing paper was read at a Conference of Temperance Workers, held in the Temperance Hall, Albert Street, Auckland, New Zealand, on Friday, February 10, 1882, and is published by the Auckland Total Abstinence Society, in compliance with resolution passed at Conference.]

PREFACE TO BIBLIOGRAPHY.

In researches for the foregoing work the want of a bibliography on the drink question was very much felt, the only attempts at such worth mentioning—so far as I could ascertain within the short time at my command—being Dr. Joseph Frank's *Praxeos Medicinæ*, Leipsiæ, 1818; Prof. Gustav Friedrich Klemm's *Allgemeine Culturwissenschaft* (11 B.), Leipzig, 1855; Raige-Delorme et Dechambre's *Dictionnaire Encyclopédique des Sciences Médicales* (tome ii.), Paris, 1865; that in Mantegazza *Quadri della Natura*, Milano, 1871; and the Index-Catalogue of the library of the Surgeon-general's office, U.S. Army (vol. i.), Washington, 1880. But these, excepting the last, are very inadequate, and therefore I hope that the following carefully classified bibliography—consisting almost wholly of works which I have examined in preparing my book—may prove useful in future researches on this great question.

The great bulk of the writings are of a scientific character, though many dealing with the historical, political, social, and religious aspects of the question have been included. A few allegories have been entered; but works of fiction, as well as special writings on the manufacture and adulteration of alcoholic drinks, have been as a rule excluded.

For the convenience of the reader, the works have been arranged according to countries, thus :—Great Britain and the Colonies, the United States, Germany, and France; the smaller countries in alphabetical order, except Mexico. The works under each country have been placed chronologically, with the authors' names under each year, alphabetically. This rule has been followed strictly except in cases where more than one work of an author is included, when all his works are grouped under the earliest one. A complete

alphabetical key to the bibliographical list of Great Britain and the Colonies is also supplied.

As regards Great Britain and the Colonies, I have endeavoured to give as full a list as possible, in the time at my disposal, of works appearing previous to 1870. Since then their number is legion, and some selection was indispensable. For brevity's sake, titles have been shortened, and writers have been distinguished simply by *Rev.* if clerical, by *Dr.* if medical, and by *Sir* when knighted. Now and then a *Prof.* has been used, and specially characteristic or well-known titles, as in the case of Archdeacon Jeffreys.

Current temperance literature, *i.e.*, newspapers and journals, have been omitted, except when there have been some special reasons for their insertion. A large number of works for which no date could be found have been excluded. Many are not in the British Museum, but those which are there have been titled according to its catalogue. In the preparation of the bibliography I have been most kindly assisted by Mr. Garnett and Mr. Eccles, of the British Museum; and by Mr. T. H. Evans, at the National Temperance League publication depôt; but for valuable and constant services, much beyond what I could justly claim on the ground of his position, I am indebted to Mr. John P. Anderson, assistant librarian of the British Museum.

ALPHABETICAL KEY TO BIBLIOGRAPHY OF GREAT BRITAIN AND COLONIES.

A

Author.	Year of first work.	Page.
Abbey, John	1881 ...	541
Accum, Freidrich Christian A. ...	1820 ...	519
Adair, Robert Graham	1869 ...	534
Ackroyd, William	1883 ...	542
Agg-Gardner	1884 ...	542
Aitkin, Dr. William	1880 ...	540
Alcohol in Grape, etc.	1847 ...	527
Alcohol, etc.	1862 ...	532
———	1874 ...	537
—— and Spirit-drinking, etc. ...	1877 ...	539
—— Question	1880 ...	541
Alford, Stephen Shute	1875 ...	537
Allen, N.	1877 ...	538
Ames, R.	1693 ...	516
An Account of the Drunken Sea	1877 ...	539
Anderson, Rev. John Bennet ...	1868 ...	534
Andersen, Peter	1838 ...	522
An Earnest, etc.	1796 ...	518
An Essay, etc....	1858 ...	530
Animal Chemistry	1846 ...	526
Annual Reports, etc.	1871 ...	535
Anon	1711 ...	516
——	1724 ...	516
——	1830 ...	520
——	1837 ...	522
——	1840 ...	524
——	1840 ...	524
——	1841 ...	524
——	1841 ...	525
——	1842 ...	525
——	1850 ...	528
——	1850 ...	529

Author.	Year of first work.	Page.
Anon	1859 ...	530
——	1863 ...	532
——	1865 ...	533
——	1880 ...	541
Anstie, Dr. Francis E.	1862 ...	532
Armstrong, Dr. John	1744 ...	517
Arnold, Robt. Arthur	1877 ...	538
Articles on Dr. Magnus Huss, etc. ...	1851 ...	529
Ashcroft, Rev. T.	1875 ...	537
Atkin, Frederic	1874 ...	536
Atkinson, Dr. F.	1879 ...	539

B

Baalzebub	1760 ...	517
Bacon, Friar Roger	1542 ...	513
——, George W.	1878 ...	539
Baker, Rev. W. R.	1838 ...	522
Baird, Dr. Robert	1870 ...	535
Balfour, Mrs. C. L.	1846 ...	526
——, Dr. C. W.	1879 ...	539
Barclay, Dr. John	1861 ...	531
Barker, Joseph	1863 ...	532
Barnes, Rev. Albert	1852 ...	529
Barrow, John H.	1845 ...	526
Barry, Sir Edward	1775 ...	517
Batchelor, William	1842 ...	525
Bayly, Mrs.	1859 ...	530
Baynard, Dr. Edward	1706 ...	516
Beardsall, Rev. F.	1839 ...	522
Beaton, John	1841 ...	525
Beaumont, Dr. Thomas	1830 ...	520
Beddoes, Dr. Thomas	1793 ...	517
Beggs, Thomas	1849 ...	527
Begie, Jac.	1821 ...	519
Bell, Dr. John	1791 ...	517
Bennet, Dr. Dalby W.	1883 ...	542
Bettle, William	1854 ...	529
Bible and Strong Drinks	1875 ...	537
Bidwell	1815 ...	519
Binz, Prof. Carl	1873 ...	536
Birmingham, Rev. James	1840 ...	522
Blacke, Dr. A.	1823 ...	519
Blake, A.	1840 ...	522
Booth, George	1838 ...	522
Boulton, Richard	1714 ...	516
Braithwaite, George	1733 ...	516
Brand, W. T.	1813 ...	519
Brathwaite, R.	1617 ...	513
Brewers' Plea	1647 ...	514

Author.	Year of first work.	Page.
Brewster, Rev. James	1832	521
Bridgett, Rev. T. E.	1876	537
Brinton, Dr. William	1861	531
Brodie, Dr. B. C.	1811	518
Browne, Rev. Peter	1713	516
Brown, Dr.	1828	519
——, Dr. Fergus Malcolm	1880	540
Bruce, Edgar	1835	521
Brunton, Dr. Lauder	1883	542
Buckingham, J. Silk	1834	521
Buckle, James	1846	526
Bucknill, Dr. John Charles	1878	539
Bullock, Rev. Charles	1877	538
Burgh, James	1751	517
Burne, Peter	1847	526
Burns, Rev. Dawson	1840	523
Burrowe's Modern Encyl.	1820	519
Burrows, George Man	1828	519
Burton, Robert	1621	513
Bury, Edward	1677	514
Buxton, Charles	1855	529

C

Caine, Rev. William	1882	541
Carlysle, Dr. A.	1810	518
Carpenter, Dr. Alfred	1882	541
Carpenter, Dr. William B.	1847	526
Carvosso, Rev. B.	1841	525
Chadwick, Dr. John	1849	527
Chamberlain, Right Hon. Joseph	1877	538
Chambers' Cyclopædia	1874	537
Charleton, Dr. Walter	1668	514
Cheyne, Dr. George	1725	516
Child, Samuel	1798	518
Christison, Sir Robert	1829	520
——, Dr.	1839	522
Clark, James	1837	521
Clark, Dr. Andrew	1881	541
Clarke, Ebenezer	1877	538
Clinical Lecture	1842	525
Close, Rev. F.	1860	531
Clouston, Dr. T. S.	1883	542
Clowes, Frederic	1879	539
Cobbett, William	1820	519
Coleman, J. J.	1878	539
Collinson, Rev. J.	1838	522
Combe, A.	1841	525
Conolly, Dr. John	1830	520
Copland, Dr. James	1858	530

Author.	Year of first work.	Page
Corfield, Dr. William H.	1880	540
Couling, Rev. Samuel	1851	529
Courtenay, A.	1856	530
Coventry, John	1845	526
Crane, Rev. J. T.	1877	538
Crowquill, Alfred	1877	538
Cruikshank, William	1840	523
——, George	1847	527
Crumpe, Dr. Samuel	1793	518
Cup of Sack	1644	514
Curtis, Robert	1872	535
C. W.	1878	539

D

Daniel, J. J.	1875	537
Darby, C.	1860	515
Darton, Thomas Gates	1877	538
Darwin, Dr. Erasmus	1794	518
Davis, H. H.	1838	522
Davy, Sir Humphry	1828	520
Dearden, Joseph	1840	523
Democritus	1840	523
Denman, James L.	1866	533
Dent, Daniel	1628	513
De Quincey, Thomas	1845	526
Dewhurst, Dr. W. H.	1838	522
Dialogue, etc.	1692	516
Digby, Sir Kenelm	1665	514
Disney, Rev. John	1729	516
D'Israeli, Isaac	1807	518
Does Alcohol, etc.	1862	532
Dolan, Dr. F. M.	1879	539
Donovan	1830	520
Dossie, Robert	1770	517
Downame, John	1613	513
Drawing-room Alcoholism	1871	535
Drinking, etc.	1692	516
Druitt, Dr. Robert	1873	536
Drysdale, Dr. Ch. R.	1879	539
Dubue, M.	1814	519
Dugeon, Dr. R. E.	1879	539
Dunckley, Henry	1851	529
Dunlop, John	1828	520
Dunmow Med. Dis.	1847	527
Dupré, Dr. A.	1872	536
Dyer, John	1849	527

E

Author.	Year of first work.	Page.
Easton, George	1859 ...	530
Edgar, Rev. John	1829 ...	520
Edmunds, Mrs. E. L.	1865 ...	533
——, Dr. James	1867 ...	533
Edward, J. R.	1859 ...	530
Ellis, Mrs.	1860 ...	531
——, Charles	1861 ...	531
Ellison, Rev. H. J.	1869 ...	534
Elscholt, J. S.	1677 ...	514
Evans, Joseph	1876 ...	537
——, T. H.	1882 ...	541
Eve, P. F.	1866 ...	533
Evidence on the Forbes-Mackenzie Act ...	1878 ...	539
Evils of Grocers, etc.	1883 ...	542

F

Faber, A. O.	1594 ...	514
Farrar, Archdeacon F. W.	1877 ...	538
Figg, Dr. E. G.	1862 ...	532
Firth, R.	1841 ...	525
Fletcher, F. D.	1864 ...	532
Forbes, Sir John	1847 ...	527
Forster, Dr. Thomas	1812 ...	519
Fothergill, Dr. J. Milner	1876 ...	537
Foulface, William	1594 ...	513
French, Rev. Richard Valpy ...	1877 ...	538
Frinus, D.	1668 ...	514
Full Report	1857 ...	530

G

Gairdner, Dr. W. E.	1861 ...	531
Gale, Rev. Henry	1856 ...	530
Gallobelgicus	1629 ...	513
Garnett, Dr. Thomas	1797 ...	518
Garrod, Dr. Alfred Baring	1859 ...	530
Geree, Rev. John	1648 ...	514
Gilbert, William	1882 ...	541
Gillespie, David	1874 ...	536
Gilmore, Rev. A.	1841 ...	525
Glasgow and West of Scotland, etc. ...	1830 ...	520
Glauber, J. R.	1869 ...	515
Good, Dr. John Mason	1825 ...	519
Gough, John B.	1855 ...	530
Graham's Temperance Guide ...	1866 ...	533
Granville, Dr. J. Mortimer	1879 ...	539
Great Evil of Health-drinking ...	1684 ...	515

Author.	Year of first work.	Page.
Greenwood, E.	1837	522
Green, Samuel	1848	527
Greville, Robert K.	1834	521
Griffin, John J.	1872	536
Grindrod, Dr. R. B.	1839	522
Gustafson, Axel	1884	542
Guthrie, Rev. Thomas	1850	528
——, Rev. John	1877	539
Guy, Dr.	1857	530

H

Haddon, James	1876	537
Hales, Rev. Stephen	1734	516
Hall, Rev. Newman	1844	525
——, Dr. J.	1880	540
Hargreaves, Dr. William	1881	541
Harley, John	1869	534
Harris, Rev. Robt.	1630	513
——, Dr. Sylvanus	1872	536
——, Dr. William	1882	541
Hart, M. B.	1843	525
Hartman, G.	1695	516
Harwood, Rev. Edward	1774	517
Hassall, Arthur Hill	1876	537
Haughton, James	1849	527
Haynes, Matthew P.	1840	523
Headland, Dr. F. W.	1852	529
Hemingston, John Leeds	1788	517
Hempel, Dr. Charles J.	1861	531
Henderson, G.	1813	519
——, A.	1824	519
Henry, Rev. William	1761	517
Heslop, T. P.	1872	536
Heywood, Thomas	1635	513
Higginbottom, John	1842	525
Hill, Rev. John	1831	521
Hindle, Frederick G.	1883	542
Hinton, Dr. James	1880	540
H. J.	1829	520
Holroyd, W. H.	1854	529
Hopkins, W. B.	1879	540
Hornby, William	1619	513
Horsfield, Rev. T.	1849	527
Howarth, Rev. F.	1850	528
Howie, Dr. James M.	1880	540
Hoyle, William	1864	532
Hudson, Thomas	1849	527
Hunt, Thomas P.	1850	528
——, Colin A.	1851	529

I

Author.	Year of first work.	Page.
Ingham, John ...	1880	540
Inman, Dr. Thomas	1861	531
Inwards, Jabez	1849	527

J

James, Dr. R. ...	1743	517
Jeffreys, Archdeacon	1840	523
Jenkins, E. ...	1876	537
J. F. M.	1840	523
Johnson's Debates	1742	517
Johnson, Dr. Edward	1843	525
Johnston, Rev. A.	1867	534
——, Prof. James F. W.	1879	540
Jole, William ...	1680	515
Jones, Andrew ...	1663	514
Junius	1836	521

K

Kallos	1883	542
Kerr, Dr. Norman ...	1876	537
Kirk, Rev. John	1862	532
Kirton, J. W. ...	1865	533
Klein, Magnus	1837	522

L

Ladies' National Temp., etc.	1876	538
Laird, Dr. Samuel ...	1856	530
Lankester, Dr. Edwin ...	1861	531
Larwood, Jacob ...	1866	533
Lawson, Dr. Robert	1878	539
——, Sir Wilfrid ...	1879	540
Leech, Dr. John	1848	527
Lees, Dr. F. R. ...	1840	523
Letters in Chemistry	1844	526
Lettsom, John Coakley	1789	517
Levi, Prof. Leone	1866	533
Levison, Dr. J. L. ...	1839	522
Lewis, David ...	1859	530
——, Dr. J. P. ...	1877	539
——, Dr. Wm. Bevan ...	1880	540
Licensing System ...	1872	536
Liquor Traffic ...	1879	540
Livesey, Joseph ...	1832	521
Logan, William	1849	528
London Chemical Gazette ...	1854	529

Author.	Year of first work.	Page.
Looking-Glasse, etc.	1652	514
Luard, P. F.	1808	518
Lucas, Dr. Thomas P.	1874	536
Lush, William J. H.	1873	536
M		
Macdonald, Rev. G. B.	1841	525
——, George	1879	540
Mackinzie, Dr. J.	1868	534
Macnish, Dr. Robert	1827	519
Madden, Dr. R. H.	1847	527
Magnan, Dr. Victor	1877	539
Maguire, J. F.	1863	532
——, Rev. Robert	1879	540
Malins, Joseph	1880	540
Marcet, Dr. William	1860	531
Marshall, Thomas	1839	522
——, Mrs.	1852	529
Marston, Dr. Jeffrey A.	1860	531
Maynwaring, Everard	1683	515
M'Culloch, Geo. E.	1846	526
——, Dr. J. M.	1860	531
McClintock, A. H.	1873	536
Medical Experience, etc.	1870	535
—— Opinions, etc.	1872	536
—— Temperance Journal	1870	535
M. G.	1685	515
Mihles, Dr. S.	1745	517
Miller, Dr. James	1857	530
Milne, Rev. Robert	1884	542
Moister, Rev. William	1877	539
Montagu, Dr. Basil	1814	519
Morewood, Samuel	1838	522
Morrel, Rev. J. M.	1883	542
Morris, Edward	1855	530
Morton, Dr. T.	1878	539
Mott, Albert J.	1884	542
Mudge, Dr. Henry	1848	527
Mulder, G. J.	1857	530
Mulled Sack	1640	514
Mundy, E.	1867	534
Munroe, Dr. Henry	1865	533
Murchison, Dr. Finlay	1876	538
——, Dr. Charles	1877	539
N		
Nash, Thomas	1592	513
National Temp. League Ann.	1881	541
Nott, Rev. Eliphalet	1863	532

O

Author.	Year of first work.	Page.
Ogston, Dr. F.	1833	521
Oinophilus, etc.	1723	516
Ollis, Rev. Thomas	1882	541
On the Administration, etc.	1845	526
Ouvaroff	1817	519

P

Page, Thomas	1846	526
Paget, Sir James	1879	540
Paris, Dr. John Ayrton	1826	519
Parkes, Dr. E. A.	1870	535
Parliamentary Proposals, etc.	1811	519
Parsons, Rev. B.	1839	522
Parton, James	1877	539
Paterson, Dr. H. Sinclair	1884	542
Patterson, James	1877	539
Pavey, Dr. T. W.	1874	536
Pearson, S. B.	1813	519
——, Rev. Thomas	1881	541
Peddie, Dr. Alexander	1854	529
Peek, Francis	1883	542
Percy, Dr. John	1839	522
Pereira, Dr. Jonathan	1853	529
Perfitt, P. W.	1849	528
Permanent Documents, etc.	1841	525
Physician, By a	1829	520
Physiological Influence, etc.	1875	537
Pigot, J. M. B.	1870	518
Pinkerton, John	1806	518
Playfair, William	1805	518
Politics of Temperance	1859	531
Powell, Frederick	1870	535
Praise of Drunkenness	1812	519
Prescott, H. P.	1869	534
Price, Mrs.	1883	542
Prichard, Dr. James Cowles	1835	521
Proceedings of the World's, etc.	1846	526
Proceedings of the International, etc.	1862	532
Prynne, William	1660	514
Pye-Smith, Rev. John	1834	521

Q

Quain, Dr. Richard	1882	541

R

Randolph, Thomas	1632	513
Randles, Marshall	1864	533
Reade, A. Arthur	1883	542
Redding, Cyrus	1836	521

Author.	Year of first work.	Page.
Rees Cyclopædia	1819	519
Reid, Thomas	1850	528
——, Rev. William	1850	528
Religious Tracts, etc.	1800	518
Report of the Com., etc.	1874	537
Report of Public Meeting, etc.	1875	537
Reynolds, G. W. M.	1841	525
——, Dr. J. Russell	1868	534
Richardson, Dr. B. W.	1869	534
Riddell, Mrs. J. H.	1872	536
Ridge, Dr. J. J.	1879	540
Rigby, Joseph	1656	514
Ringer, Dr. Sydney	1874	537
Ritchie, Rev. William	1855	530
Roaf, Rev. William	1840	524
Robson, Dr. W.	1803	518
Rolleston, S.	1750	517
Rooke, Rev. Thomas	1867	534
Russell, Richard	1678	515
——, Rev. A. G.	1868	534
——, T. W.	1884	542
Russom, J.	1849	528

S

Salmon, Dr. William	1696	515
Samuelson, James	1870	535
Sandford, Dr. William	1799	518
Scholfield, Amos	1880	540
Scrivener, Matthew	1685	515
Second Annual Report, etc.	1879	540
Sedgwick, James	1725	516
Self-cure, etc.	1879	540
Sharman, H. R.	1884	542
Sharpe, Samuel	1870	535
Shaw, Thomas George	1863	532
Sheen, James R.	1864	533
Sherlock, Frederick	1879	540
Sherman, Rev. J.	1838	522
Shirley, Stephen	1854	529
Short, Dr. Thomas	1750	517
Shrewsbury, Rev. J.	1840	524
Skey, Dr. F. C.	1867	534
Smith, John	1723	516
——, George	1749	517
——, Dr. Edward	1860	531
——, Rev. J.	1875	537
——, Dr. Ernest L. T.	1876	538
Solly, Rev. Henry	1872	536
Southey, Dr. Reginald	1879	540

Author.	Year of first work.	Page.
Speagle, H. van	1637	514
Spears, Michael	1851	529
Spencer, Rev. A.	1856	530
Spratt, Rev. John	1849	528
Spriggs-Smith, Rev.	1884	542
Stewart, Rev. Alexander	1872	536
Stokes, Rev. George	1838	522
Stott, John	1876	538
Stuart, Rev. Moses	1831	521
Stubbs, Philip	1583	513
Sullivan, A. M.	1882	541
Sutherland, Dr. Henry	1880	540
Sutton, Dr. Thomas	1813	519
Swig, Sal	1835	521
T		
Taylor, John (the Water Poet)	1635	514
——, ——	1860	531
——, Robert	1863	532
Teare, James	1846	526
Temperance Reformation	1852	529
—— Pulpit	1859	531
—— Congress	1862	532
—— Shorter Catechism	1877	539
—— International, etc.	1880	541
Temple, Sir William	1677	515
Third Report on Intemperance, etc.	1877	539
Thirty-fourth Report, etc.	1880	541
Thompson, Thomas	1612	513
——, Rev. D.	1840	524
——, Dr. Spencer	1850	528
Thomson, Dr. R. Dundas	1841	525
Thudicum, Dr. J. W. L.	1869	535
Trall, Dr. Russel T.	1845	526
Trotter, Dr. Thomas	1788	517
Tryon, Thomas	1682	515
Turner, Dr. William	1568	513
Tweedie's W., etc.	1856	530
U		
Ullmus, John Francis	1589	513
V		
Vaughan, F.	1867	534
Verdad, Pedro	1876	538
Vizetelly, Henry	1875	537
Voice from the House, etc.	1852	529

W

Author.	Year of first work.	Page.
Wagstaff, Rev. F.	1875	537
Ward, Rev. Samuel	1682	515
——, George	1868	534
——, Robert	1872	536
Walter, Rev. J.	1871	535
Warning Piece, A	1678	515
Watts, Dr. Henry	1872	536
Wesley, Rev. John	1760	517
Weston, Agnes	1879	540
White, G.	1840	524
Whitecross, John	1840	524
Whittaker, Dr. Tobias	1638	514
Whitwell, E.	1880	541
Why? A pamphlet, etc.	1878	539
Whyte, James	1880	541
Wightman, Mrs.	1860	531
Wilks, Dr. Samuel	1867	534
Williams, J.	1855	530
Wilson, Rev. T. C.	1850	528
——, Dr. Charles	1854	529
——, Rev. J. H.	1859	531
——, Rev. A. M.	1877	539
Wine and Spirit, etc.	1828	520
Wine and the Wine Trade	1867	534
Wines and their Uses	1858	530
Winskill, P. T.	1881	541
Winslow, Rev. F. E.	1881	541
Women and Alcohol	1871	535
Wood, Mrs. Henry	1860	531
——	1871	535
Woodman, W. B.	1860	533
Woodward, Dr. Josiah	1798	518
Wooler, Dr. William	1840	524
Working Man	1864	533
Worsley, Rev. Henry	1849	528
Wright, J.	1795	518
W. U.	1829	520

Y

Yonge, R.	1658	514
Youmans, Dr. Edward	1846	526
Young, Thomas	1617	513
——, Arthur	1798	518
——	1879	540

BIBLIOGRAPHY.

GREAT BRITAIN AND COLONIES.

Bacon, Friar Roger (Flourished in the year 1270), De mirabili potestate artis et naturæ. London, 1542.

Turner, Dr. William, A new Boke of the Properties of all Wines. 1568.

Stubbes, Philip, The Anatomies of Abuse. 1583.

Ullmus, John Francis, De Ebrietate Fugiendâ. 1589.

Nash, Thomas, Summer's Last Will and Testament. A Drama performed before Queen Elizabeth. (*Temperance Worker*, vol. 13, p. 99.) London, 1592.

Foulface, William (pseud.), Bacchus Bountie; describing the debonaire deitie of his bountiful Godhead in the royall observance of his great Feast of Penticost. (Harleian Miscellany, vol. 2, 1744.) 1594.

Thompson, Thomas, Diet for a Drunkard. London, 1612.

Downame, John, Foure treatises tending to disswade all Christians from . . . Swearing, Drunkenness, etc. London, 1613.

Brathwaite, R., A Solemne Joviall Disputation, Theoreticke and Practicke, briefely shadowing the Law of Drinking, etc. Œnogythopolis, At the Signe of the Red Eyes. 1617.

Young, Thomas, England's Bane. London, 1617.

Hornby, William, The Scourge of Drunkenness. London, 1619

Burton, Robert, Anatomy of Melancholy. Oxford, 1621.

Dent, Daniel, A Sermon against Drunkenness. Cambridge, 1628.

Gallobelgicus (pseud.), Wine, Beere, and Ale together by the Eares, a Dialogue, etc. London, 1629.

Harris, Rev. Robert, The Drunkard's Cup. (A sermon on Isaiah, chap. v. 11–18.) London, 1630.

Randolph, Thomas, Aristippus, a Play so called. With a Dialogue between Wine, Ale, Beere, and Tobacco, by another hand. London, 1632.

Heywood, Thomas, Philocothonista, or the Drunkard, opened, dissected, and anatomized. London, 1635.

Taylor, John (the water-poet), The old, old, very old man; or, "the age" and long life of Thomas Parr. London, 1635.

——, Drinke and Welcome; or, the famous Historie of the most part of Drinkes in use. 1637.

——, Ale Ale-vated into the Ale-titude; or, Al-earned oration before a civil Assembly of Ale-drinkers, etc. London, 1651.

Speagle, H. van (pseud.), Drink and Welcome. London, 1637.

Whitaker, Dr. Tobias, The Tree of human life; or, the bloud of the Grape. London, 1638.

Mulled-Sack. The Times Abuses; or, Mulled-Sacke his grievance, etc. London, 1640.

Cup of Sack, A. London, 1644.

Brewer's Plea, The; or, a Vindication of Strong Beer and Ale, wherein is declared the wonderful bounty and patience of God; the wicked and monstrous unthankfulness of man; the unregarded injuries done to these creatures, groaning as it were to be delivered from the abuses proceeding from disdainful aspersions of ignorant, and from the intemperance of sinful man. London, 1647.

Geree, Rev. John, Θειφαρμακον. A divine potion to preserve spirituall health, by the cure of unnaturall health-drinking. Written for the satisfaction and published by the direction of a godly parliament man. London, 1648.

Looking-glasse for a Drunkard. London, 1652.

Rigby, Joseph, An ingenious poem called the drunkard's prospective or Burning-Glasse. London, 1656.

Yonge, R., The Blemish of the Government, the Shame of Religion, the Disgrace of Mankind; or, a charge drawn up against drunkards and presented to His Highness the Lord Protector, in the name of all the Sober Party in the three nations, etc. London, 1658.

Prynne, Wm., The odious sin of drinking healths, with a brief of Mr. Pryn's solid arguments against it. London, 1660.

Jones, Andrew, The dreadful character of a drunkard; or, the most odious and beastly sin of drunkenness described and condemned. London, 1663.

Digby, Sir Kenelm, Receipts of surgery and physick, also of cordial and distilled waters and spirits. London, 1665.

Charleton, Dr. Walter, A discourse of the various sicknesses of wines. London, 1668.

Faber, A. O., Some kindling sparks in matters of physick. London, 1668.

Frinus, D., A new and needful treatise of spirits and wine offending man's body. London, 1668.

Bury, Edward, England's Bane; or, the deadly danger of drunkenness. London, 1677.

Elscholt, J. S., The Curious Distillatory; or, the Art of Distilling

Coloured Liquors, Spirits, Oils, etc., from Vegetables, Animals, Minerals, and Metals, a thing hitherto known to few. London, 1677.

Temple, Sir William, Miscellanea, Part I. An Essay upon the cure of gout by moxa. London, 1677.

Russel, Richard, The Works of Geber (Jabeer ibn Hayyan), the most famous Arabian prince and philosopher. London, 1678.

Warning Piece to the slothful, idle, careless, drunken, etc. London, 1678.

Darby, C., Bacchanalia; or, a description of a drunken club. London, 1680.

Jole, William, A warning to drunkards. London, 1680.

Tryon, Thomas, A treatise of cleanliness in meats and drinks, of the preparation of food. London, 1682.

——, Health's grand preservative; or, the Woman's best doctor. A treatise showing the nature of brandy and other distilled spirits, etc. London, 1682.

—— (*pseud., Physiologus Philotheos*), The way to make all people rich; or, Wisdom's ball to Temperance and Frugality. London, 1685.

——, A new method of educating children. London, 1695.

——, Wisdom's dictates; or, aphorisms and rules . . . for preserving the health of the body. London, 1696.

——, The way to save wealth. London, 1697.

——, The way to health, long life, and happiness, or a discourse of temperance, and the . . . things requisite for the life of man. London, 1797.

——, Letters upon several occasions. (Letter 37, Of Fermentation.) London, 1700.

Ward, Rev. Samuel, A warning-piece to all drunkards and health-drinkers, faithfully collected from the works of Mr. S. W. 1682.

Maynwaring, Everard, The method and means of enjoying health, vigour, and long life. London, 1683.

Great evil of health-drinking. 1684.

M. G. (Gent.), the Praise of Yorkshire Ale, wherein is enumerated several sorts of drink, with a description of the humours of most sorts of drunkards. York, 1685.

Salmon, Dr. William, Pharmacopœia Londinensis. London, 1685.

——, Family Dictionary. London, 1696.

——, Collectanea Medica. London, 1703.

Scrivener, Matthew, A Treatise against drunkenesse, etc. London, 1685.

Glauber, J. R., The Works of, containing great variety of choice Secrets in medicine and alchymy, in the working of metallick

mines, and the separation of metals, also cheap and easy ways of making saltpetre, and improving of barren land, and the fruits of the earth, etc. 1689.

Dialogue between Claret and Derby-ale. London, 1692.

Drinking—Fatal Friendship; or, the drunkard's misery, being a satyr against hard drinking, by the author of the search after claret. (A Poem.) 1692.

Ames, R., Bacchanalian sessions; or, the contention of liquors. London, 1693.

Hartman, G., The true preserver and restorer of health, with excellent directions for cooking, preserving, conserving, making, metheglin, etc., with a description of an engine for dressing meat, distilling cordial waters, etc. 1695.

Baynard, Dr. Edward, Biographical notices of water-drinkers. 1706.

——, Discourse on longevity. 1706.

Anon., A Dissuasive from the sin of drunkenness, by a member of the Church of England. London, 1711.

Browne, Rev. Peter, On drinking in remembrance of the dead. (A Sermon.) 1713.

——, A Discourse of drinking healths, wherein the great evil of this prevailing custom is shewn, etc. 1716.

Boulton, Richard, Physico-Chyrurgical treatises of the gout, the king's evil, etc. 1714.

Oinophilus Boniface de Monte Fiascone (pseud.), Ebrietatis Encomium; or, the praise of drunkenness, etc.: a translation of the Eloge de l'yvresse of A. H. de Sallengre. London, 1723.

Smith, John, The curiosities of common water. London, 1723.

Anon., A letter to George Cheyne . . . occasioned by his essay on health and long life. London, 1724.

Cheyne, Dr. George, An essay on health and long life. London, 1725.

——, An Essay on the nature and methods of treating the gout. London, 1737.

——, The Natural Method of curing the diseases of the body, and the disorders of the mind depending on the body. London, 1742.

Sedgwick, James, A new treatise on liquors, wherein the use and abuse of wine, malt drinks, water, etc., are particularly considered. London, 1725.

Disney, Rev. John, A view of ancient laws, against immorality and profaneness. (Laws against drunkenness, pp. 257–271.) Cambridge, 1729.

Braithwaite, George, The nation's reproach and the Church's grief; or, a serious and needful word of advice to those who needlessly frequent taverns and publick houses, etc. London, 1733.

Hales, Rev. Stephen, Friendly admonition to the drinkers of brandy, and other distilled spirituous liquors. London, 1734.

Hales, Rev. Stephen, On Ventilators, vol. ii. London, 1740.
——, On the unwholesomeness and destructiveness of fermented, distilled, and spirituous liquors. London, 1750.
Johnson's Debates. London, 1742.
James, Dr. R., Pharmacopœia Universalis. London, 1743.
Armstrong, Dr. John, The art of preserving health. London, 1744.
——, On the brain fever following intoxication. (*Edinburgh Medical and Surgical Journal*, vol. i. pp. 58, 146.) 1813.
Mihles, Dr. S., Medical essays and observations, abridged from the philosophical transactions. (Standard Temperance Library, London, 1843.) London, 1745.
Smith, George, The Art of Distilling. 1749.
Rolleston, S., Οινος Κριδινος. A dissertation concerning the origin and antiquity of barley wine. Oxford, 1750.
Short, Dr. Thomas, A discourse on tea, sugar, milk, made-wines, spirits, punch, tobacco, etc. London, 1750.
——, a General Treatise on various cold mineral waters in England. Sheffield, 1765.
Burgh, James, A warning to dram drinkers. 1751.
Baalzebub (*pseud.*), An oration delivered before an audience of distillers. London, 1760.
Wesley, Rev. John, The use of money. London, 1760.
Henry, Rev. William, Earnest Addresses to the people against drinking spirituous liquors. Dublin, 1761
——, A New Year's gift to dram drinkers, being an earnest address to them from the late Rev. Stephen Hales. Dublin, 1762.
Dossie, Robert, An essay on spirituous liquors with regard to their effects on health, etc. London, 1770.
Harwood, Rev. Edward, Of temperance and intemperance, their effects on the body and the mind, etc. London, 1774.
Barry, Sir Edward, Bart., Observations, historical, critical, and medical, on the wines of the ancients, and the analogy between them and modern wines, etc. London, 1775.
Hemingston, John Leedes, Observation on the medical practice of Dr. John Brown; or, an inquiry into the abuse of stimulants in fevers. Ipswich, 1788.
Trotter, Dr. Thomas, De Ebrietate ejusque Effectibus in Corpus humanum. Edinburgh, 1788.
——, An essay . . . on drunkenness and its effects on the human body. London, 1804.
Lettsom, John Coakley, History of some of the effects of hard drinking. London, 1789.
Bell, Dr. John, Observations on the mode of action of spirituous liquors on the human body; or, the use of malt liquors, etc. London, 1791.
Beddoes, Dr. Thomas, A Guide for self-preservation and paternal affection. Bristol, 1793.

Beddoes, Dr. Thomas, A Lecture introductory to a course of popular instruction on the constitution and management of the human body. Bristol, 1797.

——, Hygëia; or, essays moral and medical on the causes affecting the personal estate of our middling and affluent classes. Bristol, 1802–1803.

——, Good advice for the husbandman in harvest. Bristol, 1808.

Crumpe, Dr. Sumuel, Essay on the best means for providing employment for the people. 1793.

Darwin, Dr. Erasmus, Zoonomia. (Sect. xxi. of drunkenness.) London, 1794.

Wright, J., Essay on wines, etc. London, 1795.

An earnest and affectionate address to the poor, against drunkenness. (A minister to his parishioners.) London, 1796.

Garnett, Dr. Thomas, A Lecture on the preservation of health. London, 1797.

——, Popular lectures on zoonomia; or, laws of animal life. London, 1804.

Child, Samuel (Brewer), The Art and mystery of brewing porter, ale, etc. London, 1798.

Woodward, Dr. Josiah, A dissuasive from the sin of drunkenness. London, 1798.

Young, Arthur, Inquiry into the state of the public mind amongst the lower classes. Dublin, 1798.

Sandford, Dr. William, A few practical remarks on the medicinal effects of wine and spirits. Worcester, 1799.

Religious Tracts dispersed by the Society for Promoting Christian Knowledge. (Vol. ii.) London, 1800.

Robson, Dr. W., De effectibus vini et spiritus ardentis in corpus humanum. Edinburgh, 1803.

Playfair, William, An Inquiry into the permanent causes of the decline and fall of powerful and wealthy nations, etc. London, 1805.

Pinkerton, John, Recollections of Paris in 1802–1805. London, 1806.

D'Israeli, Isaac, Curiosities of Literature. London, 1807.

Pigot, J. M. B., Dissertatio . . . de morbis ebriosorum quædam complectens. Edinburgi, 1807.

Luard, P. F., De quibusdam ebriosorum morbis. Edinburgi, 1808.

Carlysle, Dr. A. (afterward written *Carlisle, Sir Anthony*), On the pernicious effects of fermented and spirituous liquors as a part of human diet. London, 1810.

——, An essay on the disorders of old age, etc. London, 1817.

——, Moral influence of fermented liquors. 1837.

Brodie, Dr. B. C., Experiments and observations of the different modes in which death is produced by certain vegetable poisons. (Experiments with Alcohol. In Phil. Transact. of

the Royal Society. C. I., p. 176.) London, 1811. (Republished in 1851 under the title of *Physiological Researches.*)

Parliamentary proposals, that brandy, rum, etc., be prohibited. 1673. Harleian Miscellany (vol. viii. p. 559). London, 1811.

Forster, Dr. Thomas, Physiological reflexions on the destructive operation of spirituous and fermented liquors on the animal system. London, 1812.

Praise of Drunkenness, The. (Anon.) 1812.

Brand, W. T., Remarks on the state in which alcohol exists in fermented liquors. (Phil. Transact.) London, 1813.

Henderson, G., De effectibus alkohol. Edinburgi, 1813

Pearson, S. B., Observations on brain fever following intoxication. *Edinburgh Medical and Surgical Journal* (vol. ix. p. 326. Essay first published in 1801). 1813.

Sutton, Dr. Thomas, Tracts on delirium tremens, etc. London, 1813.

Dubue, M., On Alcohol or Spirituous Liquors. (Phil. Mag., xliii.) London, 1814.

Montagu, Dr. Basil, Essay on fermented liquors, by a water-drinker. London, 1814.

Bidwell, A Case of delirium tremens. (*London Medical Report.*) London, 1815.

Ouvaroff, Essay on the mysteries of Eleusis, translated by J. D. Price, with observations by J. Christie. 1817.

Rees Cyclopædia. (Articles on alcohol and drunkenness.) London, 1819.

Accum, Friedrich Christian A. (Chemist), A treatise on adulterations of food and culinary poisons, exhibiting the fraudulent sophistications of spirituous liquors. London, 1820

Burrowe's Modern Encyclopædia (vol. iii., Art. Chemistry . . . of alcohol, p. 253.) London. [1820.]

Cobbett, William, Political Register. (Chap. on councils to young men.) London, 1820.

Begie, Jac., Diss. de delirio trem. Edinburgh, 1821.

Blake, Dr. A., A Paper on delirium ebriositatis. (*Edinburgh Medical and Surgical Journal,* vol. xix. p. 497.) Edinburgh, 1823.

——, A practical essay on the disease generally known under the denomination of Delirium Tremens. London, 1830.

Henderson, A., The History of ancient and modern wines. London, 1824.

Good, Dr. John Mason, The study of medicine. London, 1825.

Paris, Dr. John Ayrton, A treatise on diet, etc. London, 1826.

Macnish, Dr. Robert, The anatomy of drunkenness. Glasgow, 1827.

Brown, Dr., Hereditary tendency to insanity. London, 1828.

Burrows, George Man, Commentaries on the causes, forms, symptoms, and treatment of insanity. London, 1828.

Davy, Sir Humphry, Salmonia. London, 1828.
Dunlop, John, Extent and remedy of national intemperance. 1828.
——, An essay on the wine system of Great Britain. Greenock, 1831.
——, The Philosophy of artificial and compulsory drinking usages in Great Britain and Ireland. London, 1839.
——, The Temperance Emigrants: a drama descriptive of the difficulties and discouragements incident to temperance societies and general temperance life. London, 1842.
Wine and spirit adulterations unmasked. London, 1828.
Christison, Sir Robert, A treatise on poisons in relation to medical jurisprudence, etc. London, 1829.
——, On some of the medico-legal relations of the habit of intemperance. Edinburgh, 1861.
Edgar, Rev. John, An Address to the temperate. Dublin, 1829.
——, The intoxicating drinks of the Hebrews. Belfast, 1837.
——, Scriptural Temperance. Belfast, 1837.
H. J., The political evils of intemperance. Dublin, 1829.
——, Some observations and advice addressed to the mechanic and industrious classes on the use of ardent spirits. Dublin, 1830.
——, The Test; or, falsehood and ignorance exposed, an answer to *teetotalism, examined and rejected.* London, 1839.
Physician, By a (Dr. John Cheyne), A statement of certain effects to be apprehended from temperance societies. Dublin, 1829.
——, A letter on the effects of wine and spirits. Dublin, 1829.
——, Propositions submitted to the consideration of the opponents of temperance societies. Dublin, 1830.
——, A second letter on the effects of wine and spirits. Dublin, 1830.
W. U., Remarks on the evils, occasions, and cure of intemperance. Dublin, 1829.
Beaumont, Dr. Thomas, A lecture on the nature, uses, and effects of ardent spirits. (Delivered at Bradford, December, 1830.) 1830.
——, Essay on the nature and properties of alcoholic drinks. Bradford, 1830.
Anon., A Letter to a member of the Dublin Temperance Society on the supposed value of ardent spirits, in relation to national wealth, government revenue, rent and agricultural profits. Dublin, 1830.
Conolly, Dr. John, An Inquiry concerning the indications of insanity. London, 1830.
Donovan, History of intoxicating liquors. (In Domestic Economy, vol. i.) 1830.
Glasgow and West of Scotland Temperance Society Report, 1830–1831.

Hill, Rev. John, Seven discourses containing friendly warnings against drunkenness. Huntly, 1831.

Stuart, Rev. Moses, An essay upon the wines and strong drinks of the ancient Hebrews, etc. (Reprinted from the American edition, with a preface by Rev. Dr. John Pye Smith.) London, 1831.

Brewster, Rev. James, The evils of drunkenness and the principles of temperance societies (Scotland). 1832.

Livesey, Joseph, Lecture on malt liquor. Preston, 1832.

——, Reminiscences of early teetotalism. Preston, 1867.

——, Autobiography. Preston, 1868.

Ogston, Dr. F., Phenomena of the more advanced stage of intoxication, with cases and dissections. *Edinburgh Medical and Surgical Journal,* vol. xi. p. 276.) 1833.

——, Pathological observations on the bodies of known drunkards. (*British and Foreign Medico-Chirurgical Review,* April, 1834.)

Buckingham, J. Silk, Evidence on drunkenness presented to the House of Commons. London, 1834.

——, National evils and practical remedies, with the plan of a model town. London, 1849.

——, An earnest plea for the reign of temperance and peace. London, 1851.

——, History and progress of the temperance reformation in Great Britain and other countries of the globe, also a plea for the Maine Law. London, 1854.

——, Autobiography of J. S. Buckingham. London. [1855.]

Greville, Robert K., Facts illustrative of the drunkenness of Scotland. Edinburgh, 1834.

Pye Smith, Rev. John, On the habitual use of alcoholic beverages. 1834.

Bruce, Edgar, Digest of evidence before the Committee of Parliament on the extent, causes, and consequences of drunkenness. London, 1835.

Prichard, Dr. James Cowles, Treatise on insanity and other disorders affecting the mind. London, 1835.

——, On different forms of insanity. London, 1842.

——, The total abstainer defended. London, 1845.

Swig, Sal, The oration of S. S. in defense of drunkenness. Dublin, 1835.

Junius, An essay on the nature and properties of porter. London, 1836.

Redding, Cyrus, History and description of modern wines. London, 1836.

Clark, James, A Manual of the New British and Foreign Temperance Society. . . nature of intoxicating liquors; opinions of medical men. . . . difficulties and objections considered, etc., etc. London, 1837.

Greenwood, E., Lectures on the causes, effects, and extent of intemperance. London, 1837.
Klein, Magnus (of Berlin), A brief narrative of his life, written by himself. London, 1837.
Anon., Historical anecdotes dedicated to temperance societies. By a Durham clergyman. London, 1837.
Andersen, Peter, Thoughts on drink. Edinburgh, 1838.
Baker, Rev. W. R., The Curse of Britain, essay on the evils, causes, and cure of intemperance. London, 1838.
——, an easy catechism or first manual for little teetotallers. London, 1838.
——, Useful facts for the drinkers, sellers, and makers of malt liquors. London, 1838.
——, Intemperance the idolatry of Great Britain. London. [1851.]
Booth, George, The Palace of Gin; a serio-comic dramatic poem in two acts. London, 1838.
Collinson, Rev. J., Fables, dedicated to temperance societies. London, 1838.
Davis, H. H., The tee-totaller's album, etc. Carlisle, 1838.
Dewhurst, Dr. W. H., A popular lecture on the physiology of drunkenness, etc. London, 1838.
Morewood, Samuel, A philosophical and statistical history of the inventions, etc., of inebriating liquors. Dublin, 1838.
Sherman, Rev. J., The claims of our neighbour. London, 1838.
Stokes, Rev. George, A temperance catechism, etc. Liverpool, 1838.
Beardsall, Rev. F., A Treatise on the nature, properties, and composition of ancient and modern wines. London, 1839.
Christison, Dr., On granular degeneration of the kidneys. Edinburgh, 1839.
Grindrod, Dr. Ralph Barnes, Bacchus. (Prize Essay.) London, 1839.
Levison, Dr. J. L., Lecture on the hereditary tendency of drunkenness. London, 1839.
Marshall, Thomas, Aquarius; or, the history of drunkenness. Berwick, 1839.
Parsons, Rev. B., Anti-Bacchus. Essay on intoxicating drinks. London, 1839.
——, The Wine Question settled in accordance with the inductions of science and the facts of history. London, 1841.
Percy, Dr. John, An experimental inquiry concerning the presence of alcohol in the ventricles of the brain, etc. Nottingham, 1839.
Birmingham, Rev. James, Memoir of the Very Rev. Theobald Matthew, with an account of the rise and progress of temperance in Ireland. 1840.
Blake, A., On Delirium Tremens. London, 1840.

Burns, Rev. Dawson, A plea for youth's temperance societies. London, 1840.
——, Scripture light upon intoxicating liquors. London, 1861.
——, Drink, drunkenness, and the drink traffic. Leeds, 1862.
——, Temperance Bible Commentary. (Dr. F. R. Lees, joint author.) London, 1868.
——, Dialogue between a clergyman, physician, and publican. London, 1869.
——, The Bible and total abstinence. (Prize Essay.) London, 1869.
——, Examination of Prof. Levi's letter to Mr. Bass, M.P. London, 1872.
——, The bases of temperance reform. London, 1872.
——, Christendom and the drink curse. London, 1875.
——, The Temperance treasury and dictionary of persons, dates, customs, events, productions, laws, etc., associated with intoxicating liquors and the temperance reformation. See *Temperance Worker*, 1873–1883.
——, Temperance ballads, with other metrical compositions. London, 1883.
Cruikshank, William, God glorified by teetotalism. London, 1840.
Dearden, Joseph, A brief history of ancient and modern teetotalism, with a short account of drunkenness and the various means used for its suppression. Preston, 1840.
——, Forty Years Ago, or the dawn and spread of teetotalism. 1873.
Democritus, An analysis, scientific, moral, and scriptural, of the nature . . . of wine, ale, and alcohol. Newcastle-upon-Tyne, 1840.
Haynes, Matthew P., An interesting account of the extraordinary grand teetotal galashield at Dyrham Park (August 10, 1840). London, 1840.
Jeffreys, Archdeacon, The religious objection to teetotalism. London, 1840.
——, Alcoholic wines. 1845.
J. F. M., The doctrines of total abstinence justified. 1840.
Lees, Dr. F. R., Rotherham discussion. Rotherham, 1840.
——, Standard Temperance Library; containing valuable reprints from medical authors of the last three centuries. Douglas, 1841.
——, History of the wine question. London, 1840.
——, Prize essay on Deuteronomy xiv. 25, 26. Leeds, 1842.
——, The illustrated history of alcohol. London, 1843.
——, Sacramental prize essay. 1844.
——, Essays, historical and critical, on the temperance question. London, 1853.

Lees, Dr. F. R., The wine question considered in an entirely novel point of view. Leeds, 1853.
——, Reply to the *Westminster Review*. 1855.
——, An argument for the legislative prohibition of the liquor traffic. London, 1856.
——, The principles of true temperance. Manchester, 1856.
——, One hundred objections to a Maine Law; sequel to an argument for the legislative prohibition of the liquor traffic. Manchester, 1857.
——, Discussion between Dr. F. R. Lees and Dr. H. Brown. Manchester, 1859.
——, The basis of temperance. Leeds, 1859.
——, Review of Dr. Nott's Lectures on Biblical Temperance. Manchester, 1863.
——, Doctors, drugs, and drinks. London, 1866.
—— and *Rev. Dawson Burns*, The Temperance Bible Commentary. London, 1868.
——, The text-book of temperance. London, 1870.
——, Life and how to renew it; with other papers critical and historical on physiology and temperance. London, 1871.
——, A refutation of Bishop Lincoln's extraordinary attack upon teetotalism. London, 1873.
——, The Bible wine question. London, 1875.
——, An historical induction. Leeds, 1876.
——, Nephalism. Reply to the *Clerical World*. London, 1883.
——, What the Bible teaches in regard to temperance. Leeds, 1883.
——, The science temperance text-book. London, 1884.
Roaf, Rev. William, The pastor's pledge of total abstinence. 1840.
Shrewsbury, Rev. J., Alcohol against the Bible, and the Bible against alcohol. 1840.
Thompson, Rev. D., Scriptural union; or, Temperance Societies based on Bible principles. (Four Lectures.) 1840.
White, G., Hints moral and medical on teetotalism, gin-drinking, and opium-eating. London, 1840.
Whitecross, John, Temperance anecdotes and facts; with a selection of some of the principal arguments in support of temperance principles. Edinburgh, 1840.
Wooler, Dr. William, The philosophy of temperance and the physical causes of moral sadness. London, 1840.
Anon., Facts, proving water to be the only beverage fitted to give health and strength to man. London, about 1840.
Anon., Gin, the skeleton spirit and demon of depravity: a voice from the poison palaces, addressed to the two houses of the British Legislature. London, 1840.
Anon., History of teetotalism in Devonshire. Devonport, 1841.

Beaton, John, An address to the working classes on the advantages of total abstinence. 1841.

Carvosso, Rev. B., Drunkenness the enemy of Britain. Barnstaple, 1841.

Combe, A., Physical and moral management of infancy. 1841.

——, Physiology of Digestion. Edinburgh, 1845.

Firth, R., An Essay on sacramental wines. Hull, 1841.

Gilmore, Rev. A., Sacramental Wines. London, 1841.

——, Our Drinks; or, the nature and effects of fermented liquors. London, 1856.

Macdonald, Rev. G. B., An Apology for the disuse of alcoholic drinks. London, 1841.

Reynolds, G. W. M., The anatomy of intemperance, a key to teetotalism. London, 1841.

Thomson, Dr. R. Dundas, Digestion; the influence of alcoholic fluids on that function. London, 1841.

Anon., Tirosh Lo Yayin, or the wine question considered in an entirely novel point of view. London, 1841.

Permanent documents of the American Temperance Society. London, 1841.

Batchelor, William, Trial and persecution of a teetotal surgeon; with important and conclusive testimonies from eminent physicians, surgeons, and apothecaries, proving that all curable diseases can be cured without the use of alcoholic fluids. Dunstable, 1842.

Clinical Lecture on Delirium Tremens. (*London Medical Gazette*, vol. xxx. p. 280.) 1842.

Higginbottom, John, Mothers, doctors, and nurses. Nottingham, 1842.

——, Obesity, paralysis, and apoplexy. Nottingham, 1843.

——, On the treatment of disease without the use of alcoholic stimulants. (*Lancet*, vol. 11, p. 166.) London, 1857.

——, On the treatment of diseases without the use of alcoholic stimulants. (*Lancet*, vol. 1, p. 237.) London, 1858.

——, On the non-alcoholic treatment of disease. (*British Medical Journal*, vol. ii. pp. 274–278.) London, 1862.

——, Alcoholic rheumatism from daily imbibition of fermented alcoholic liquors and its remedy. (*British Medical Journal*, vol. i. p. 26.) London, 1868.

Anon., The progressive effects of drunkenness as exhibited on both English and natives. Calcutta, 1842.

Hart, M. B., Truth unfolded; or, the origin and progress of teetotalism in and near London. London. 1843.

Johnson, Dr. Edward, Life, health, and disease. London, 1843.

Hall, Rev. Mr. Newman, Scriptural claims of teetotalism. Hull, 1844.

——, Words from the workshop. London, 1860.

Hall, Rev. Mr. Newman, Stop the leak. Hull, 1862.
——, Cross-bearing. Hull, 1864.
——, Day of small things. Hull, 1865.
——, Conflict and victory. London, 1874.
Letters in Chemistry. (First Series.) London, 1844.
Barrow, John H., Temperance and teetotalism; being a candid inquiry into the lawfulness or unlawfulness of using distilled and fermented liquors. Market Drayton, 1845.
Coventry, John, Teapot musings; or, moderation *versus* excess; a discussion over three cups of tea with the teetotal—other total—and health-studying public. Chelmsford, 1845.
De Quincey, Thomas, The temperance movement of modern times. (*Tait's Edinburgh Magazine.*) 1845.
Trall, Dr. Russel T., Philosophy of the temperance reformation. London, 1845.
On the administration of intoxicating doses of alcohol in traumatic tetanus. (*Lancet*, vol. 1.) London, 1845.
Balfour, Mrs. C. L., The *Juvenile Abstainer* (now called *Morning Dewdrops*). About 1846.
Buckle, James, The Wesleyan Centenary Hall spirit vaults exposed. London, 1846.
M'Culloch, George E., Sobriety contrasted with intemperance, in a series of addresses. Edinburgh, 1846.
Page, Thomas, An earnest appeal to the nation at large on the mischievous effects of beer-houses. London, 1846.
Teare, James, The origin and success of the advocacy of the principle of total abstinence from all intoxicating liquors. London, 1846.
Youmans, Dr. Edward, The scientific basis of prohibition. London, 1846.
Animal Chemistry (vol. xix. p. 116). London, 1846.
Proceedings of the World's Temperance Convention. London, 1846.
Burne, Peter, The teetotaller's companion, or a plea for temperance. London, 1847.
——, The Concordance of scripture and science, illustrated with reference to the temperance cause. London, 1847.
Carpenter, Dr. William B., The physiological effects of alcoholic drinks. (In the *British and Foreign Medical Review*, October, 1847.) London, 1847.
——, On the use and abuse of alcoholic liquors in health and disease. (Prize Essay.) London, 1850.
——, The moderate use of intoxicating drinks, physiologically considered. London, 1853.
——, The physiology of temperance and total abstinence. London, 1853.
——, The physiological errors of moderation. Glasgow, 1855.

Alcohol-in-Grape Question, The, solved. London, 1847.
Cruikshank, George, The Bottle, in eight plates. London, 1847.
——, The drunkard's children: a sequel to the bottle, in eight plates. London, 1848. Reproduced by the National Temperance League in 1881.
——, The glass and the new crystal palace. London, 1853.
Dunmow Med. Discussion on teetotalism between Dr. R. Grindrod and Mr. Wm. Cock and Mr. John Coventry. Dunmow, 1847.
Forbes, Sir John, Temperance and teetotalism; an inquiry into the effects of alcoholic drinks on the human system in health and disease. London, 1847.
——, The physiological effects of alcoholic drinks. London, 1848.
Madden, Dr. R. H., Stimulating Drinks. London, 1847.
Green, Samuel, The Christian aspect of teetotalism. London, 1848.
Leech, Dr. John, On the use of alcoholic stimulants in fever. Glasgow, 1848.
Mudge, Dr. Henry, Texts rescued from the intemperate; or, teetotalism put under the protection of the gospel. Bodmin, 1848.
——, Alcoholics: a letter to practitioners in medicine, by one of themselves. London, 1856.
——, Physiology, health, and disease demanding abstinence from alcoholic drinks and prohibition of the common sale. London, 1859.
——, Physiology, health, and disease. London, 1860.
——, The nature and obligations of temperance. London, 1862.
——, Stimulants in fever. (*Medical Times and Gazette*, vol. 2, p. 630.) London, 1863.
——, A Guide to the treatment of disease without alcoholic liquors. Bodmin, 1863.
Beggs, Thomas, An inquiry into the extent and causes of juvenile depravity. London, 1849.
——, Dear bread and wasted grain. London, 1856.
——, A sketch of the life and labours of Mr. Alderman Guest, of Rotherham. London, 1881.
Chadwick, Dr. John, An essay on the use of alcoholic liquors in health and disease. London, 1849.
Dyer, John, Total abstinence examined by the light of science. About 1849.
Haughton, James, The use of alcoholic liquors, economically, socially, and morally wrong. Dublin, 1849.
——, A plea for teetotalism and the Maine Law. About 1856.
Horsfield, Rev. T., A plea for a change of the wine at the Lord's Table. London, 1849.
Hudson, Thomas, Occasional papers on the evils of a drinking education. London, 1849.
Iawards, Jabez, Essays on temperance. London, 1849.

Inwards, Jabez, Dewdrops, etc. London, 1851.
——, Temperance Reminiscences; or, glimpses of the past. About 1856.
——, Memorials of temperance workers. London, 1879.
Logan, William, The moral statistics of Glasgow. Glasgow, 1849.
——, The great social evil. London, 1871.
——, The early heroes of the temperance reformation. Glasgow, 1873.
Perfitt, P. W., Human physiology the genuine advocate of total abstinence from all kinds of alcoholic beverages. (*The Abstinence Standard.*) 1849–1850.
Russom, J., The evil effects of beershops. (A Prize Essay.) London, 1849.
——, A word to the working classes, etc. London, 1850.
Spratt, Rev. John, An appeal to the people on the horrid crime of drunkenness. Dublin, 1849.
Worsley, Rev. Henry, Juvenile depravity. (Prize Essay.) London, 1849.
Guthrie, Rev. Thomas, A plea on behalf of drunkards and against drunkenness. Edinburgh, 1850.
——, The city; its sins and sorrows. Edinburgh, 1857.
Howorth, Rev. F., Popular objections to total abstinence calmly examined. London, 1850.
Hunt, Thomas P., Death by measure; or, poisons and their effects found in intoxicating liquors. Edinburgh, 1850.
Reid, Thomas, Intemperance considered in relation to its cause and cure; or a defence of the principle and practice of total abstinence. Glasgow, 1850.
Reid, Rev. William, The evils of moderate drinking: an argument for total abstinence. Glasgow, 1850.
——, The Temperance Cyclopædia. Glasgow, 1851.
——, Temperance memorials of the late Robert Kettle, Esq. Glasgow, 1853.
——, The Anti-Christ of England; or, the liquor traffic viewed in its antagonism to humanity, civilization, and religion. London, 1857.
——, Our National Vice. Glasgow, 1858.
——, The Communion Wine Question; a plea for the fruit of the vine. Glasgow, 1873.
——, Christian liberty in relation to communion wine (a sequel to the foregoing). Glasgow, 1873.
Thompson, Dr. Spencer, Temperance and total abstinence; or, the use and abuse of alcoholic liquors in health and disease. London, 1850.
Wilson, Rev. T. C., The British idol: a book for young people, about intoxicating drink and the sin of using it. Glasgow, 1850.
Anon., Intemperance the pestilence of the age. London, 1850.

Anon., Reasons for advocating total abstinence from intoxicating drinks. By an old abstainer. London, 1850.

Couling, Rev. Samuel, Our labouring classes, their intellectual, moral, and social condition considered, with suggestions for their improvement. London, 1851.

——, The traffic in intoxicating drinks, its evil and its remedy. London, 1855.

——, History of the temperance movement in Great Britain and Ireland. London, 1862.

——, Teetotalism *versus* alcohol. London, 1863.

——, The Lord's portion; or, giving to God made easy and pleasant. London, 1865.

Dunckley, Henry, The glory and the shame of Britain; an essay on the condition and claims of the working classes, together with the means of securing elevation. London, 1851.

Hunt, Colin A., Necessity, practicability, and value of total abstinence. (Prize Essay.) London, 1851.

Spears, Michael, The principles and practice of total abstinence. (Prize Essay.) London, 1851.

Articles on Dr. Magnus Huss's (of Stockholm) *Chronic Alcoholism. British and Foreign Medico-Chirurgical Review*, January, 1851 to April, 1852.

Barnes, Rev. Albert, The Throne of Iniquity. London, 1852.

Headland, Dr. Frederick William, An essay on the action of medicines in the system. (Alcohol, pp. 327–330.) (Prize Essay.) London, 1852.

Marshall, Mrs., The Profligate's Dream. Edinburgh, 1852.

Voice from the House of Lords one hundred years ago, A; or, the guilt and national impolicy of encouraging the traffic in intoxicating liquors. Glasgow, 1852.

Temperance Reformation, The: being select papers on the leading aspects of the question. By various authors. Dundee, 1852.

Pereira, Dr. Jonathan, The elements of materia medica. (Vol. ii. part ii. Art. Alcohol, pp. 1936–1958.) London, 1853.

Bettle, William, The Temperance movement, its objects and aims. London, 1854.

Holroyd, W. H., Sabbath drinking; its evils and remedies. York, 1854.

Peddie, Dr. Alexander, Pathology of delirium tremens, and its treatment without stimulants, etc. Edinburgh, 1854.

Shirley, Stephen, Our national sinews: a word on the present condition of the working classes. London, about 1854.

Wilson, Dr. Charles, The pathology of drunkenness. Edinburgh, 1854.

London Chemical Gazette, The, p. 35, etc. London, 1854.

Buxton, Charles (Brewer), How to stop drunkenness. (*North British Review*, February.) 1855.

Gough, John B, Autobiography and orations. London, 1855.
Morris, Edward, History of temperance and teetotal societies in Glasgow. Glasgow, 1855.
Ritchie, Rev. William, Scripture testimony against intoxicating wine. Glasgow, 1855.
——, ——, New Edition, much enlarged. Glasgow, 1874.
Williams, J., On the use of narcotics. 1855.
Courtenay, A., Both sides; or, objections to teetotalism. About 1856.
Gale, Rev. Henry, Apostolic Temperance. 1856.
Laird, Dr. Samuel, The Glass and its victims. London, 1856.
Spencer, Rev. A., A plea for abstinence. London, 1856.
Tweedie's, W., Temperance Year-Book London, 1856–1876.
Guy, Dr., Intemperance in its physical and moral aspects. (*Weekly Record*, April 25, May 2 and 9) London, 1857.
Miller, Dr. James, Abstinence; its place and power. London, 1857.
——, Prostitution considered in its relation to its cause and cure. Edinburgh, 1859.
——, Alcohol; its place and power Glasgow, 1861.
——, Nephalism, the true temperance of scripture, science, and experience, Glasgow, 1861.
Mulder, G. J., The Chemistry of wine. (Adulteration of wine, pp. 350–377.) London, 1857.
Full Report of the proceedings of the ministerial conference on the suppression of the liquor traffic held at Manchester, June, 1857. Manchester, 1857.
Copland, Dr. James, A dictionary of practical medicine. (Arts. on delirium with tremor, drunkenness, vol. i.) London, 1858.
An essay on Solomon's use of alcoholic wine and his opinion thereof. 1858.
Wines and their uses. (*British and Foreign Medico-Chirurgical Review*, April.) 1858.
Anon. (Rev. William Reid ?), Christianity in its antagonism to drunkenness. A discourse of facts and principles, corrective, admonitory, and suggestive. London, 1859.
Bayly, Mrs., Ragged homes and how to mend them. London, 1859.
Easton, George, The wine of Cana. Glasgow, 1859.
——, An autobiography. Glasgow, 1867.
Edward, J. R., An essay on drunkenness. Melbourne, 1859.
Garrod, Dr. Alfred Baring, The nature and treatment of gout. London, 1859.
——, Gout and rheumatic gout. London, 1876.
Lewis, David, History of the temperance movement in Scotland. Edinburgh, 1859.
——, Britain's social state. Glasgow, 1878.
——, The drink problem and its solution. London, 1881.

Wilson, Rev. J. H., Our moral wastes and how to reclaim them. London, 1859.
Politics of temperance. (By various authors.) Manchester, 1859.
Temperance pulpit. (Ten sermons.) Glasgow, 1859.
Close, Rev. F., Why I have taken the pledge. Carlisle, 1860.
Ellis, Mrs., A voice from the vintage. London, 1860.
Marcet, Dr. William, On experimental inquiry into the action of alcohol on the nervous system (*Medical Times and Gazette*), vol. i. pp. 214, 264–312. London, 1860.
——, On chronic alcoholic intoxication. London, 1862.
——, Inquiry into the influence of the abuse of alcohol as a predisposing cause of disease. (*British and Foreign Medico-Chirurgical Review*, second series, vol. xxix. p. 485.) 1862.
Marston, Dr. Jeffrey A., On delirium tremens. (*Edinburgh Medical and Surgical Journal*, vol. vi. p. 295.) Edinburgh, 1860.
M'Culloch, Dr. J. M., The temperance reformation from a medical point of view. Glasgow, 1860.
Smith, Dr. Edward, Action of Tea and Alcohol Contrasted. (*Dublin Medical Press*, second series, vol. ii. p. 58.) Dublin, 1860.
——, On the mode of action of alcohol in the treatment of disease. (*Lancet*, vol. 1, pp. 80, 132, 212.) London, 1861.
——, On the action of alcohol. In *Journal of the Society of Arts*, January 18, 1862.) London, 1862.
Taylor, John, Drunkenness as an indirect cause of crime; with map showing number of public-houses in the metropolis. London, 1860.
Wightman, Mrs., Haste to the rescue. London, 1860.
——, Arrest the destroyer's march. London, 1876.
Wood, Mrs. Henry, Danesbury House. Glasgow, 1860.
Barclay, Dr. John, Ale, wine, spirits, and tobacco. London, 1861.
Brinton, Dr. William, On food and its digestion (pp. 365–398). London, 1861.
Ellis, Charles, The origin, nature, and history of wine. London, 1861.
Gairdner, Dr. W. E., On the use of alcoholic stimulants in hospital medical practice. (*Edinburgh Medical and Surgical Journal*, vol. vi. p. 961.) Edinburgh, 1861.
Hempel, Dr. Charles J., A new and comprehensive system of materia medica and therapeutics, arranged upon a physiological pathological basis. London, 1861.
Inman, Dr. Thomas, Foundation for a new theory and practice of medicine. London, 1861.
Lankester, Dr. Edwin, On Food. (Two courses of Lectures. Second course, alcohol, wine, spirit, and beer, etc.) London, 1861.

Anstie, Dr. Francis E., Cases illustrating the action of alcohol as aliment in disease. (*London Medical Review.*) 1862.
——, The alcoholic question. (*London Medical Review.*) 1862.
——, Stimulants and narcotics: their mutual relations, with special researches on the action of alcohol, æther, etc., on the vital organism. London, 1864.
——, Alcoholism. An article in Dr. J. R. Reynolds' "A System of Medicine" (vol. ii. pp. 63–93). London, 1868.
——, On the uses of wines in health and disease. London, 1877.
Figg, Dr. Edward Garland, On the physiological operation of alcohol. (*Temperance Spectator*, July to December inclusive.) London, 1862.
Kirk, Rev. John, Medicinal drinking. Glasgow, 1862.
——, Britain's drawbacks. Glasgow, 1868.
——, Papers on health. Fourth series, water and food. London, 1879. Sixth series, Brandy. London, 1881.
Alcohol: is it food, medicine, or poison? (*Cornhill Magazine*, January.) London, 1862.
Does alcohol act as a food? (*Cornhill Magazine,* September.) 1862.
Proceedings of the International Temperance and Prohibition Convention held in London, September 2, 3, and 4, 1862. (Edited by Rev. J. C. Street, Dr. F. R. Lees, and Rev. D. Burns, 518 8vo pp.) London, 1862.
Temperance Congress of 1862. London, 1862.
Barker, Joseph, The drink traffic and the temperance movement. London, 1863.
Maguire, J. F., Father Matthew: a biography. London, 1863.
Nott, Rev. Eliphalet, Lectures on biblical temperance. London, 1863.
Shaw, Thomas George, Wine, the vine, and the cellar. London, 1863.
Taylor, Robert, The teetotaler's guide. Newcastle, 1863.
Anon., The Nemesis of drink. London, 1863.
Fletcher, F. D., On Dipsomania. (*British Medical Journal.*) London, 1864.
Hoyle, William, Intemperance and crime; their causes and remedies. London, 1864.
——, Our national resources, and how they are wasted. London, 1871.
——, On the waste of wealth. London, 1873.
——, The question of the day; or, facts and figures for electors and politicians. London, 1874.
——, Total abstinence, a physical and moral obligation. London, 1874.
——, Crime in England and Wales in the nineteenth century. London, 1876.
——, On the causes of bad trade. London, 1877–1879.

Hoyle, William, Over-production and the present stagnation in trade. Manchester, 1878.

——, Our national drink bill as it affects the nation's well-being. A series of letters to the *Times* and other newspapers, together with original articles. London, 1884.

Randles, Marshall, Britain's bane and antidote. London, 1864.

Sheen, James R., Wines and other fermented liquors from the earliest ages to the present time. London, 1864.

Working Man, A, The philosophy of toasts and health-drinking. Edinburgh, 1864.

Anon., Life and labours of the Rev. J. Tunnicliffe. Leeds, 1865.

Edmunds, Mrs. E. L., Life and memorials of the late Rev. W. R. Baker. London, 1865.

Kirton, J. W., The four pillars of temperance. London, 1865.

——, One thousand temperance anecdotes. London, 1868.

——, John Wesley's Methodism and the temperance reformation. London, 1873.

——, Intoxicating drinks; their history and mystery. London, 1879.

Munroe, Dr. Henry, The physiological action of alcohol. London, 1865.

——, Alcohol not food. London, 1867.

——, Fashions in medicine. London, 1872.

——, The drink we consume.

Denman, James L., Wine as it should be, etc. London, 1866

——, What is wine? London, 1874.

Eve, P. F., Whisky and tobacco: their effects upon soldiers and others. Nashville, 1866.

Graham's Temperance Guide, Maidstone. 1866–1880.

Larwood, Jacob, and *J. C. Hotten*, The history of sign boards from the earliest time to the present day. London, 1866.

Levi, Prof. Leone, On the wine trade and wine duties. London, 1866.

——, The liquor trades: a report to M. T. Bass, on the capital invested and number of persons employed therein. London, 1871.

——, Consumption of spirits, beer and wine, in its relation to licenses, drunkenness, and crime. London, 1872.

Woodman, W. B., On the elimination of alcohol by the human kidney. (*Medical Mirror.*) London, 1866.

Edmunds, Dr. James, Alcohol as a medicine, a lecture delivered in Manchester Town Hall, before the Manchester Diocesan Church of England and Ireland Temperance Reformation Society, February 21, 1867.

——, The non-alcoholic treatment of disease. London, 1876.

——, Alcoholic drinks as an article of diet for nursing mothers. London, 1879.

Johnston, Rev. A., On the extent and direct cost of the drinking system of Scotland. London, 1867.
Mundy, E., The Contrast. (A temperance prize essay.) Brighton, 1867.
Rooke, Rev. Thomas, Clerical testimony in favour of total abstinence. London, 1867.
Skey, Dr. F. C., Hysteria. (Six lectures to students of St. Bartholomew's Hospital, 1866.) London, 1867.
Vaughan, F., Weighed in the balance: on the necessity and advantages of total abstinence. (Prize essay.) Brighton, 1867.
Wilks, Dr. Samuel, Clinical lecture on the indiscriminate use of alcoholic stimulants in disease. (*Lancet*, vol. 1, pp. 505–507.) London, 1867.
Wine and the wine trade. (*Edinburgh Review*, July.) 1867.
Anderson, Rev. John Bennet, Bible teetotalism. London, 1868.
Mackinzie, Dr. J., Condensed temperance facts for Christians. London, 1868.
Reynolds, Dr. J. Russell, A system of medicine. (Vol. ii. *Alcoholism*, by Dr. F. E. Anstie, pp. 63–93; and *Insanity*, by Dr. Henry Maudsley, pp. 8–62.) London, 1868.
Russell, Rev. A. G., Drinking and disease. London, 1868.
Ward, George, The opinions and practice of medical men with regard to intoxicating drinks as a medicine. Leeds, 1868.
Adair, Robert Graham, The question of the times: temperance and the liquor traffic. London, 1869.
Ellison, Rev. H. J., The temperance reformation movement in the Church of England. London, 1869.
Harley, John, The old vegetable narcotics. London 1869.
Prescott, H. P., Strong drink and tobacco smoke. London, 1869.
Richardson, Dr. B. W., Physiological research on the alcohols. (*Medical Times and Gazette*, December 18.) London, 1869.
——, On alcohol; a course of six cantor lectures delivered before the Society of Arts. London, 1875.
——, Alcohol in the treatment of disease. (*Lancet*, January 1.) London, 1876.
——, Alcohol for the unhealthy. Sheffield, 1877.
——, Diseases of modern life. London, 1877.
——, Results of researches on alcohol. London, 1877.
——, The action of alcohol on the mind. London, 1877.
——, The true moderation in drink. Oxford and Cambridge, 1877.
——, Moderate drinking, for and against, from scientific points. London, 1878.
——, The temperance lesson-book. London, 1878.
——, Total abstinence; a course of addresses. London, 1878.
——, Dialogues on drink. Glasgow, 1878.
——, A ministry of health. Glasgow, 1878.

Richardson, Dr. B. W., Drink and strong drink. Glasgow, 1882.
——, The field of disease. London, 1883.
——, Brief notes for temperance teachers. London, 1884.
——, Scientific basis of the temperance reformation. *Asclepiad.* (July.) 1884.
Thudichum, Dr. J. W. L., On wines; their origin, nature, analysis, and uses. London, 1869.
——, A Treatise on the origin, nature, and varieties of wine. London, 1872.
——, Alcoholic drinks. London, 1884.
Baird, Dr. Robert, Physiological essays, drink-craving, differences in men, idiosyncracy, and the origin of disease. London, 1870.
Parkes, Dr. Edmund A., and *Count Cyprian Wollowicz*, Experiments on the effect of alcohol (ethyl-alcohol) on the human body. (Proceedings of the Royal Society of London, vol. xviii. pp. 362–393.) London, 1870.
——, Experiments on the action of red Bordeaux wine (claret) on the human body. (Vol. xix. pp. 73–89.) London, 1870.
——, A manual of practical hygiene, intended especially for medical officers of the army and civil medical officers of health. (Alcoholic beverages, pp. 257–287.) London, 1873.
——, On the issue of a spirit ration during the Ashanti Campaign of 1874. London, 1875.
——, Public Health. London, 1876.
——, A manual of practical hygiene. London, 1878
——, On personal care of health. London.
Powell, Frederick, Bacchus dethroned. (Prize essay.) London, 1870.
Samuelson, James, Beer scientifically and socially considered. London, 1870.
——, History of drink. London, 1880.
Sharpe, Samuel, The history of Egypt. (On Wine, see vol. i. p. 42.) London, 1870.
Medical experience and testimony in favour of total abstinence. London, 1870.
Medical Temperance Journal (Quarterly). London, 1870–1884.
Annual Reports of the London Temperance Hospital. London, 1871–1883.
Vibbert, Rev. George H., Prohibition in the United States. Manchester, 1871.
Walter, Rev. J., England's curse and its cure. London, 1871.
Wood, The Licensed Victuallers Bill. London, 1871.
Drawing-room Alcoholism. (*Saturday Review*, January 21.) London, 1871.
Women and alcohol. (*Spectator*, February 18, 1871.) London, 1871.
Curtis, Robert, The trial of Captain Alcohol. Dublin, 1872.

Dupré, Dr. A., Proceedings of the Royal Society (No. 131, p. 177; and No. 133, p. 268). London, 1872.
Griffin, John J., The chemical testing of wines and spirits. London, 1872.
Harris, Dr. Sylvanus, Inebriety, continuous and periodical. London, 1872.
Heslop, T. P., The abuse of alcohol in the treatment of acute disease. London, 1872.
Riddell, Mrs. J. H., May we drink cold water, and if so, when? (*London Society*, October.) London, 1872.
Solly, Rev. Henry, Working men's clubs and alcoholic drinks. London, 1872.
Stewart, Rev. Alexander, A practical Bible temperance commentary. Aberdeen, 1872.
Ward, Robert, The fallacies of teetotalism. London, 1872.
Watts, Dr. Henry, A dictionary of chemistry. (Vol. i. pp. 73–80, on *Alcohol*; pp. 81–96, on *Alcoholometry*; pp. 97–104, on *Alcohols*; pp. 105–110, on *Aldehyde, . . . and Aldehydes.*) London, 1872–1881.
Licensing system, The. (*British Quarterly Review.*) London, 1872.
Medical opinions on the temperance question. London, 1872.
Binz, Prof. Carl (of Bonn), Some effects of alcohol. (Address at the Annual Meeting of the British Association for the Advance of Science.) September, 1873.
——, The Elements of therapeutics. (Translated by Edward Sparks.) London, 1877.
Druitt, Dr. Robert, Report on the cheap wines from France, Germany, Italy, etc. London, 1873.
Lush, William John Henry, Chronic alcoholism and its treatment by galvanism. 1873.
——, Faradization in cases of chronic alcoholism. (*Lancet*, November 29.) 1879.
McClintock, A. H., Remarks on the semiology of chronic alcoholism. Dublin, 1873.
Atkin, Frederic, The philosophy of the temperance reformation. London, 1874.
Gillespie, David, The Gothenburg licensing system. Edinburgh, 1874.
Lucas, Dr. Thomas P., Does alcohol impart strength, or is it a food? London, 1874.
——, The physiological and chemical action of alcohol. (*British Medical Journal.*) 1876.
——, The laws of life and alcohol. London, 1877.
——, The true action and physiological results of alcohol. London, 1877.
Pavey, Dr. T. W., Treatise on food. (Alcohol, pp. 121–125; on elimination of alcohol, pp. 341–379.) London, 1874.

Ringer, Dr. Sydney, Handbook of therapeutics. London, 1874.
Alcohol; its friends and foes. (*British and Foreign Medico-Chirurgical Review,* vol. liii. pp. 16–43.) London, 1874.
Chambers' Cyclopædia. Articles: diet; digestion; drinking usages; food and drink; temperance. London, 1874.
Report of the Committee on intemperance for the convocation of the province of York. Manchester, 1874.
Ashcroft, Rev. T., Teetotalism not a delusion; or, a vicar's charges refuted. London, 1875.
Alford, Stephen Shute, A few words on drink-craving. London, 1875.
Daniel, J. J., Strong drink and Christian duty. Salisbury, 1875.
Smith, Rev. J., The Temperance Reformation and its claims. London, 1875.
Vizetelly, Henry, The wines of the world. London, 1875.
——, Facts about sherry. London, 1876.
Wagstaff, Rev. F., Communion wine; fermented or unfermented. London, 1875.
——, Temperance lessons for the young. Birmingham, 1882.
Bible and strong drinks, The. (*Westminster Review,* January.) London, 1875.
Report of public meeting to promote the use of unfermented wine at the communion. Edinburgh, 1875.
Physiological influences of alcohol, The. (*Edinburgh Review,* July.) 1875.
Bridgett, Rev. Thomas E., The discipline of drink. London, 1876.
Evans, Joseph, Arrows from a temperance quiver. London, 1876.
Fothergill, Dr. J. Milner, The Practitioner's handbook of treatment. London, 1876.
Haddon, James, On intemperance in women, with special reference to its effects on the reproductive system. (*British Medical Journal,* vol. i. pp. 748–750.) London, 1876.
Hassall, Dr. Arthur Hill, Food: its adulterations, and the methods for their detection. London, 1876.
Jenkins, E., The Devil's Chain. London, 1876.
Kerr, Dr. Norman, The action of alcoholic liquors in health. London, 1876.
——, How to check drunkenness. London, 1878.
——, Intemperance and its remedy. London, 1878.
——, The mortality of intemperance. London, 1879.
——, Female intemperance. London, 1879.
——, The medical history of the temperance movement. (*Temperance Record,* September 4.) London, 1879.
——, The heredity of alcohol. London, 1880.
——, Diseases from alcohol. London, 1882.
——, Stimulants in workhouses. London, 1882.

Kerr, Dr. Norman, Unfermented wine a fact. London, 1882.
——, Wines, scriptural and ecclesiastical. London, 1882.
——, Wines. London, 1882.
——, The treatment of inebriates. London, 1882.
——, Relations between intemperance and insanity. London, 1882.
——, Recently imported wines. (*Medical Press and Circular.*) London, 1882.
——, Passover wine: an appeal on behalf of reformed inebriates. London, 1883.
——, The truth about alcohol. London, 1884.
——, Inaugural address to the society for the study and cure of inebriety. London, 1884.
Murchison, Dr. Finlay, Eclampsia in a case of dipsomania. (*British Medical Journal.*) London, 1876.
Smith, Dr. Ernest L. T., The influence of alcoholism in the causation and aggravation of disease. London, 1876.
Stott, John, On the mortality among publicans and other persons engaged in the sale of intoxicating liquors. Glasgow, 1876.
Verdad, Pedro (*pseud.* for Walter MacGee). From vineyard to decanter: a book about sherry. London, 1876.
Ladies' National Temperance Convention, The. London, 1876.
Allen, N., Effects of alcohol on the offspring. (*Journal of Physical Medicine,* vol. iii. pp. 209–214.) London, 1877.
Arnold, Robert Arthur, English drunkenness and Swedish licensing. London, 1877.
Bullock, Rev. Charles, The temperance witness-box. London, 1877.
Chamberlain, Rt. Hon. Joseph, Public-house reform. (Speech in reply to an Article in the *Fortnightly Review,* by Hon. Robert Lowe.) London, 1877.
Clarke, Ebenezer, The worship of Bacchus a great delusion. London, 1877.
Crane, Rev. J. T., The arts of intoxication. Otley, 1877.
Crowquill, Alfred (*pseud.*), The reproof of the brutes. London, 1877.
Darton, Thomas Gates, The total abstinence agitation in its relation to intemperance. London, 1877.
Farrar, Archdeacon Frederick W., The vow of the Nazarite. London, 1877.
——, Abstinence from evil. London, 1880.
French, Rev. Richard Valpy, Does the Bible support total abstinence? London, 1877.
——, Pleas for abstinence. London, 1878.
——, United Temperance Mission held at Newport. London, April, 1879.
——, History of toasting; or, drinking healths in England. London, 1881.

French, Rev. Richard Valpy, Nineteen centuries of drink in England. London, 1884.
Guthrie, Rev. John, Temperance physiology. Glasgow, 1877.
Lewis, Dr. J. P., Temperance and teetotalism. London, 1877.
Magnan, Dr. Victor (Paris), On alcoholism: the various forms of alcoholic delirium and their treatment. (Translated by W. S. Greenfield.) London, 1877.
Moister, Rev. William, The evil and the remedy. London, 1877.
Murchison, Dr. Charles, Clinical lectures on diseases of the liver. London, 1877.
Parton, James, Does it pay to smoke and drink? London, 1877.
Patterson, James, The intoxicating liquor licensing acts. London, 1877.
Wilson, Rev. A. M., The wines of the Bible. London, 1877.
Alcohol and spirit-drinking amongst soldiers. (*Indian Medical Gazette*, xii.) Calcutta, 1877.
An account of the drunken sea. By a Physician. London, 1877.
Temperance shorter catechism and confession of faith. Glasgow, 1877.
Third Report on intemperance before the select committee of the House of Commons. London, 1877.
Bacon, George W., Alcohol at the bar: the highest medical and scientific testimony concerning its use. London, 1878.
Bucknill, Dr. John Charles, Habitual drunkenness and insane drunkards. London, 1878.
Coleman, J. J., The constitution of malt liquors and their influence upon digestion and nutrition. Glasgow, 1878.
C. W., The wine question. London, 1878.
Lawson, Dr. Robert, Symptomatology of alcoholic brain disorders. (The brain.) 1878.
Morton, Dr. T., The mortality referable to alcohol. (*Medical Press and Circular*, vol. xxvi. pp. 448–452.) London, 1878.
Evidence on the Forbes-Mackenzie Act. Manchester, 1878.
Why, a pamphlet in favour of teetotalism. Salisbury, 1878.
Atkinson, Dr. F. P., A cause of alcoholism, etc., with the treatment suggested. (*Practitioner.*) London, 1879.
Balfour, Dr. C. W., Delirium Tremens. Clinical lectures on the treatment of D. T. (*Lancet.*) London, 1878.
Clowes, Frederic, A lecture on the physiological action of alcohol. Bowness-on-Windermere, 1879.
Dolan, Dr. F. M., Pauperism and drink, etc. (*Medical Press and Circular.*) London, 1879.
Drysdale, Dr. Charles R., A few words about alcohol and its use by healthy persons. London, 1879.
Dugeon, Dr. R. E., On the use of alcohol in health. London, 1879.
Granville, Dr. J. Mortimer, Is insanity increasing? (*Nineteenth Century*, March.) London, 1879.

Hopkins, W. B., Holy Scripture, temperance, and total abstinence. London, 1879.
Johnston, Prof. James F. W., Chemistry of common life. London, 1879.
Lawson, Sir Wilfrid, The drink difficulty. (*Nineteenth Century.*) London, 1879.
Macdonald, George, Sir Gibbie. London, 1879.
Maguire, Rev. Robt., Temperance landmarks: from 1829 to 1879. London, 1879.
Paget, Sir James, Alcohol question. London, 1879.
Ridge, Dr. J. James, The temperance primer. London, 1879.
——, The non-alcoholic treatment of disease. London, 1880.
——, The temperance Pilgrim's Progress. London, 1882.
Sherlock, Frederick, Fifty years ago; or, Erin's temperance jubilee Belfast, 1879.
——, Illustrious abstainers. London, 1880.
——, Heroes in the strife. London, 1881.
——, Shakespeare on temperance. London, 1882.
——, Sir Wilfrid Lawson, Bart., M.P., on temperance. London, 1882.
Southey, Dr. Reginald, On the action of alcohol. (In physiology for practical uses.) London, 1879.
Weston, Agnes, Temperance work in the royal navy. London, 1879.
Young, Analytical (Greek and Hebrew) concordance (p. 1058). Edinburgh, 1879.
Liquor traffic, The: should it be prohibited? (*Dublin Review*, July.) Dublin, 1879.
Second Annual Report of the society for promoting legislation for the control and cure of habitual drunkards. London, 1879.
Self-cure of the love of liquor and the opium habit. London, 1879.
Aitkin, Dr. William, The science and practice of medicine. (Alcoholism, vol. ii. pp. 1084–1094.) London, 1880.
Brown, Dr. Fergus Malcolm, Drunkenness or apoplexy. (*Lancet.*) London, 1880.
Corfield, Dr. William Hy., Health. London, 1880.
Hall, Dr. J., Drink thirst: Its medical treatment. London, 1880.
Hinton, Dr. James, Physiology for practical use. London, 1880.
Howie, Dr. James M., Stimulants and narcotics. London, 1880.
Lewis, Dr. William Bevan, Physiological action of alcohol. (*Journal of Mental Science.*) London, 1880.
Ingham, John, A temperance reading-book; or, elementary chapters on alcohol. London, 1880.
Malins, Joseph, The Shakespearian temperance Co. kalendar. London, 1880.
Scholfield, Amos, Loose bricks for temperance and social workers. London, 1880.
Sutherland, Dr. Henry, Cases of alcoholic insanity in private

practice. Paper read before British Medical Association in 1880.

Whitwell, E., Evidence on the closing of public-houses on Sunday. Manchester, 1880.

Whyte, James, The alcoholic controversy: an examination of articles in the *Contemporary Review*. London, 1880.

Anon., Babylonian cups. (By a special commissioner.) London, 1880.

Alcohol Question, The. London, 1880.

Thirty-fourth Report of the Commissioners of Lunacy, to the Lord Chancellor. London, 1880.

Temperance International Conference, edited by H. C. Rudd, and H. T. C. Cox. Melbourne, 1880.

Abbey, John, Intemperance: its bearing upon agriculture. London, 1881.

Clark, Dr. Andrew, Alcohol in small doses. London, 1881.

——, An enemy of the race. London, 1882.

Hargreaves, Dr. William, Alcohol and Man. London, 1881.

Pearson, Rev. Thos., The Bible and temperance; or, the true scriptural basis of the temperance movement. London, 1881.

Winskill, P. T., History of the rise and progress of the temperance reformation. Warrington, 1881.

Winslow, Rev. F. E., The death march of great drinkdom. London, 1881.

——, Come out from among them. London, 1882.

National Temperance League Annual. London, 1881, 1882, 1883, 1884.

Caine, Rev. William, Thoughts for Christians on Bible wines and temperance. Manchester, 1882.

Carpenter, Dr. Alfred, Alcoholic drinks not necessaries of life. London, 1882.

Evans, T. H., The abstainer's companion. (Evan's Temperance Annual, 1877–1882.) London, 1882.

——, The Picture-gallery of Bacchus; or, temperance readings on public-house signs. London, 1882.

——, The temperance ladder. a collection of original dialogues and recitations. London, 1883.

Gilbert, William, Legion; or, the modern demoniac. London, 1882.

Harris, Dr. William, Insanity: its causes, prevention, and treatment. London, 1882.

Ollis, Rev. Thomas, Scripture texts on temperance critically examined. Edited by F. Atkin. Liverpool, 1882.

Sullivan, A. M., Speeches and addresses. (The Sale of Drink, p. 111.) Dublin, 1882.

Quain, Dr. Richard, (editor of) A dictionary of medicine. (Article on alcohol by Prof. C. Binz, of Bonn; article on alcoholism by Dr. John Curnow.) London, 1882.

Ackroyd, William, The history and the science of drunkenness. London, 1883.
Bennet, Dr. Dalby W., Alcohol: its use and abuse. Torquay, 1883.
Brunton, Dr. Lauder, The influence of stimulants and narcotics on health. (Book of health, edited by Malcolm Morris, pp. 183–240, on Alcohol.) London, 1883.
Clouston, Dr. T. S., The effects of the excessive use of alcohol on the mental functions of the brain. Edinburgh, 1883.
Hindle, Frederick G., The legal status of licensed victuallers. London, 1883.
Morrell, Rev. J. M., Hints and topics for temperance speakers. London, 1883.
Peek, Francis, Social wreckage. London, 1883.
Price, Mrs., First steps to temperance. London, 1883.
Reade, A. Arthur, Study and stimulants. Manchester, 1883.
——, Short anecdotes on temperance. London, 1884.
Kallos, A treatise on the scientific culture of personal beauty and the cure of ugliness. By a Fellow of the Royal College of Surgeons. London, 1883.
Evils of Grocers' and Shopkeepers' Licences. London, 1883.
Agg-Gardner, J. T., Compulsory temperance. *Fortnightly Review.* (Aug.) London, 1884.
Gustafson, Axel, The Foundation of Death: a Study of the Drink Question. London, 1884.
Milne, Rev. Robert, The Problem of the Churchless and Poor, in our large towns. London, 1884.
Mott, Albert J., Alcohol and Total Abstinence. *National Review.* (May.) London, 1884.
Paterson, Dr. H. Sinclair, Life, function, health. London, 1884.
Russell, T. W., A social experiment; or, five years before and after Sunday closing in Ireland. Dublin, 1884.
Sharman, H. R., A cloud of witnesses against grocers' licences. London, 1884.
Spriggs-Smith, Rev., The Burton brewers and the clergy. London, 1884.

UNITED STATES.

Protest of the Society of Friends against the drink at Funerals. 1760.
Anon., The mighty destroyer displayed in some account of the dreadful havock made by the mistaken uses as well as abuse of distilled spirituous liquors. (By a lover of mankind.) Philadelphia, 1774.

First Continental Congress recommended the Colonies to put an end to the "pernicious practice of distilling grain." 1774.

Benezet, Anthony, Remarks on the nature and bad effects of spirituous liquors. Philadelphia, Pa. 1778.

200 farmers protested against the use of liquors in their farm work, and formed the first Temperance Society of modern times at Litchfield, Conn. 1779

A conference of Methodist churches held at Baltimore, April 24, adopted the following:—"Do we disapprove of the practice of distilling grain into liquor? Shall we disown our friends who will not renounce the practice? Yes." 1780.

The conference which organized the M. E. Church of America assembled at Baltimore, Ma., December 27. It adopted "Mr. Wesley's original rule" forbidding "drunkenness, buying or selling spirituous liquors, or drinking them, unless in cases of extreme necessity," as published in The Discipline for the Churches. 1784.

A volume of sermons on temperance, apparently written by a physician, believed to have been by Dr. Rush. Philadelphia, Pa. 1790.

Rush, Dr. Benjamin, An inquiry into the effects of spirituous liquors. Philadelphia, Pa., 1793.

——, Inquiry into the effects of ardent spirits upon the human body and mind. Philadelphia, Pa., 1794.

[The views of Dr. Rush had been given for years in his medical lectures, and large editions of this book were published in 1804 and 1811.]

Porter, Rev. Ebenezer, Fatal effects of ardent spirits. Washington, Conn., 1806.

Humphrey, Rev. Heman, Address on temperance to the Fairfield Co. Association. Fairfield, Conn., 1813.

——, A parallel between intemperance and the slave-trade, 1828.

Cleveland, Parker, Address on the suppression of intemperance. Boston, Mass., 1814.

Kirkland, Rev. John T., Sermon before the Massachusetts Temperance Society. Boston, Mass., 1814.

Abbot, Rev. A., Sermon before the Massachusetts Society. Boston, Mass., 1815.

Appleton, Rev. J., Sermon before the Massachusetts Society. Boston, Mass., 1816.

Read, Dr. Alexander, An Address delivered before the New Bedford Auxiliary Society for the suppression of intemperance, at their Annual Meeting, January 6, 1817, New Bedford, Mass., 1817.

Worcester, Rev. Samuel, The drunkard a destroyer. Boston, Mass., 1817.

Cogswell, Rev. William, Discourse delivered before the Dedham Auxiliary Society. Dedham, Mass., 1818.

Klapp, Dr. J., A Memoir on temulent disease. Philadelphia, 1818.
Nichols, Andrew, Address delivered in Danvers before the Society for suppressing intemperance. Salem, Mass., 1819.
Hertell, Thomas, Exposé of the cause of intemperate drinkings, etc. Philadelphia, Pa., 1819.
Jonks, Rev. W., Sermons before the Massachusetts Society. Boston, 1821.
Proctor, J. W., Address on temperance. Danvers, Mass., 1821.
Warren, Henry, Sermon delivered at Roxbury before the Roxbury Auxiliary Society. Boston, Mass., 1821.
Bronson, Salmon, A Mirror for christian poisoners, legal swindlers, their associates and abettors. New York, 1823.
Nott, Rev. Samuel, Sermon on intemperance. Galway, New York, 1823.
Warren, Abbott, Address on temperance. Danvers, Mass., 1823.
Edwards, Rev. Justin, The Well-conducted farm; a tract on farming carried on without the use of stimulants. Andover, Mass., 1825.
——, A Temperance manual. New York.
Ware, Dr. John, Address before Massachusetts Peace Society. Boston, Mass., 1825.
——, Remarks on the history and treatment of *delirium tremens*. Boston, Mass., 1831.
Beecher, Rev. Lyman, Six sermons on the nature, signs, evils, and remedy of intemperance. Litchfield, Conn., 1826.
Bradford, Gamaliel, Address before the Massachusetts Society. Boston, 1826.
Chapin, Rev. Calvin, of Rocky Hill, Conn., Entire abstinence the only infallible antidote. (A series of essays published in the *Connecticut Observer*, 1826.)
Stuart, Rev. Moses, An essay upon the Wines and strong drinks of the ancient Hebrews, etc. (Prize Essay.) New York, 1826.
——, Teetotalism weighed in the balances. New York, 1837.
Weems, A., Peter and John Hay. (A Tract.) 1826.
Yale, Rev. C., Sermon on intemperance. Williamstown, Mass., 1826.
The National Philanthropist. (A weekly.) Motto: Moderate Drinking is the down-hill road to intemperance and drunkenness. It was the first temperance paper ever published in the world. Issued April 1st, 1826. Publisher, Rev. William Collier, Baptist minister in Boston, Mass. Mr. William Lloyd Garrison was its editor.
Emlyn, Dr. S., Effects of spirituous liquors upon society. Phila., 1827.
——, An appeal to the intemperate. New York, 1828.
Palfrey, Rev. John G., Discourses on intemperance. Boston, Mass., 1827.

Bannantyne, J., Intemperance among literary men. Portland, 1828.
Barnes, Rev. Albert, Twelve essays on intemperance. Phila., 1828.
Kittridge, Jonathan, An address to manufacturers and vendors of strong drink. 1828.
Sprague, Rev. W. B., Intemperance a just cause of alarm. West Springfield, 1828.
Mussey, Rev. R. D., An address on ardent spirits, read before the New Hampshire Medical Society at their annual meeting (June 5, 1827). Boston, 1829.
——, Essay on ardent spirits and its substitutes as a means of invigorating health. Washington, 1835.
——, Alcohol in health and disease. Cincinnati, 1856.
Hitchcock, Prof. Edward, Argument against the manufacture of ardent spirits. New York, 1829.
——, Dyspepsia forestalled and resisted; or, lectures on diet, regimen, and employment. Amherst, 1830.
Medical Opinions. Report of New York Temperance Society. New York, 1830.
Gillpatrick, James, The nature and remedy of intemperance. Boston, 1832.
Ware, Rev. Henry, Criminality of intemperance. Boston, Mass., 1832.
Beaumont, Dr. William, Experiments and observations on the gastric juice and the physiology of digestion. Plattsburg, New York, 1833.
Bell, Dr., Address to the Medical Students' Temperance Society of Pennsylvania. Philadelphia, Pa., 1833.
Fox, Thomas B., Traffic in ardent spirits; an argument against the manufacture and sale of ardent spirits as a drink. Dover, 1833.
Allen, Jonathan, A., An essay on the use of narcotic substances. Middlebury, 1835.
Harvey, Dr., Prize essay on heredity from drink. Washington, D. C., 1835.
Lindsly, H., An essay on the origin and introduction into medical practice, etc., etc., of ardent spirits. Washington, D. C., 1835.
Baird, History of the temperance societies of the United States. 1836.
Channing, Rev. William Ellery, An address on temperance. Boston, Mass., 1837.
Abbot, John Slavens Cabot, Lecture on the licence laws. London, 1838.
Bacon, Rev. Leonard, Discourse on the traffic in spirituous liquors. New Haven, Conn., 1838.
Kirk, Rev E. N., The Temperance Reformation connected with the

revival of religion and the introduction of the millennium. New York, 1838.

Nott, Rev. Eliphalet, Lectures on Bible temperance. (Delivered at Schenectady.) New York, 1838–1839.

Kemp, John, The difficult arrest, fair trial, just sentence, and unfortunate liberation of Sir John Barleycorn (pp. 15). Boston, about 1840.

Sewell, Prof. Thomas, The pathology of drunkenness; or, the physical effects of alcoholic drinks, etc. Albany, New York, 1841.

Gale, James, A long voyage in a leaky ship; or, forty years' cruise in the sea of intemperance, being an account of some of the principal incidents in the life of an inebriate. Written by himself. Cambridgeport, 1842.

Gough, John B., An autobiography. Boston, 1845.

Clark, J. H., The present position and aims of the temperance enterprise. (Prize essay.) New York, 1847.

Means, A., Alcohol. (*Southern Medical and Surgical Journal*, vol. iii. pp. 59–82.) Augusta, 1847.

Bouton, N., History of the temperance reform in Concord. Concord, 1848.

Kitchel, Rev. Harvey D., An appeal to the people for the suppression of the liquor traffic. (Prize essay.) New York, 1848.

Marsh, Rev. John, A discourse on the extent and evils of the Sunday liquor traffic in cities. New York, 1848.

Warren, J. C., The physiological effects of alcoholic drinks. Boston, 1848.

Jewett, Charles, Speeches, etc., on temperance. Boston, Mass., 1849.

Remarks on the use of alcohol for the preparation of medicines. Boston, 1849.

Wright, C. W., On the changes which ether, alcohol, etc., suffer when taken into the circulation. (*Western Lancet*, vol. xi. p. 423.) Cincinnati, 1850.

Alger, William R., The facts of intemperance and their claims on the public action of the people. Boston, 1852.

Armstrong, Lebbeus, The Temperance Reformation: its history, etc. New York, 1853.

Brown, Thurlow W., Why I am a temperance man. A series of letters to a friend, together with tales and sketches from real life and hearthstone reveries. New York, 1853.

Youmans, Dr. Edward L., Alcohol and the constitution of man. New York, 1854, 12mo. 142 pp.

Opium and alcohol; their comparative effects on the system, described by one who experienced them. (*Boston Medical and Surgical Journal*, vol. xlix. pp. 341–348.) Boston, 1854.

Davis, Dr. N. S., A lecture on the effects of alcoholic drinks on the

system, and the duties of medical men in relation thereto. (*North-west Medical and Surgical Journal*, vol. xii. pp. 97-123.) Chicago and Indianapolis, 1855.

is, Dr. N. S., Experimental inquiries concerning the physiological effects of alcoholic drinks on man. (*Chicago Medical Examiner*, vol. iii. p. 522). Chicago, 1867.

——, A brief paper on the comparative effects of alcohol and tobacco on the human system. (*Chicago Medical Examiner*, vol. xii. pp. 129-274). Chicago, 1871.

——, The verdict of science concerning the effects of alcohol on man. (*Chicago Medical Examiner*, vol. xvi. pp. 327–332.) Chicago, 1875.

Hammond, Dr. William A., The physiological effects of alcohol and tobacco upon the human system. (*American Journal of Medical Sciences*, new series, vol. xxxii. pp. 305–320.) Phila., 1856.

Stephens, Dr. J. P., Some of the effects of alcohol upon the physical constitution of man. (*Southern Medical and Surgical Journal*, new series, vol. xiii. pp. 451–462.) Augusta, 1857.

Alden, H. M., Eleusinia. (*Atlantic Monthly*, September, 1859 ; August, 1860.) Boston Mass., 1859–1860.

Andrews, John (Governor of Massachusetts), The errors of prohibition. (*American Journal of Medical Science*, July, 1859.)

Sherrill, H., A temperance medical lecture on the injurious and dangerous effects of stimulants and alcohol in many states of disease. New York, 1859.

Lotrop, Dr. J. R., Action and uses of alcohol. (*Buffalo Medical and Surgical Journal*, vol. ii. pp. 355–369.) Buffalo, 1862.

Trall, Dr. Russell T., The true temperance platform ; or, an exposition of the fallacy of alcoholic medication. New York, 1864.

——, Alcoholic medication. New York, 1866.

——, Digestion and dyspepsia. New York, 1880.

Lombard, Dr. J. S., On the influence of alcohol upon the animal temperature. (*New York Medical Journal*, vol i. pp. 174–182.) New York, 1865.

Cox, Edward, Abstinence ; its influence upon the health, morals, and success in life, of the young. (Prize essay.) Hobart Town, 1866.

Flint, Dr. Austin, The physiology of man. (On *water*, which includes the alcohol question. Vol. ii. pp. 102–114.) New York, 1866.

Maughs, Dr. G. M. B., Inconsistency in the use of alcoholic stimulants with chloroform. (*St. Louis Medical Reporter*, vol. i. pp. 169–176.) St. Louis, 1866–7.

Andrew, John A., Errors of prohibition. Boston, 1867.

Bradley, Dr. W. L., Alcohol as a dressing for wounds with special reference to its employment by M. Nélaton at the Clinical

Hospital, Paris, France. (*Proceedings of the Connecticut Medical Society*, new vol. ii. p. 253.) New Haven, 1867.

Day, Albert, Methomania: a treatise on alcoholic poisoning. Boston, 1867.

Miner, Rev. Dr. A. A., Prohibition. Boston, 1867.

Walston, Dr. R. L., The action of alcohol upon the human system. (*Chicago Medical Examiner*, vol. viii. pp. 257–270.) Chicago, 1867.

Testimony before Massachusetts Legislative Committee. 1867.

Alden, E., Medical uses of alcohol. Boston, 1868.

Andrew, James H., Temperance in the American congress. New York, 1868.

Parton, James, Smoking and drinking. Boston, 1868.

Story, Dr. Charles A., Alcohol: its nature and effects. New York, 1868.

McNutt, Dr. W. F., Alcohol as a dressing to surgical and traumatic wounds. (*California Medical Gazette*, vol. i. p. 9.) San Francisco, 1868–9.

Bell, Dr. John, Report of the committee on the relations of alcohol to medicine. Philadelphia, 1869.

Fiske, Prof. John, Tobacco and alcohol. New York, 1869.

Deering, Thomas W., Intemperance; its financial, physical, and moral evils, and its causes and remedies. New York, 1870.

Miller, J. and Lizars, J., Alcohol and tobacco. Philadelphia, 1870.

Cheever, Dr. H. S., Effect of alcohol on animal temperature. *Michigan University Medical Journal*, vol. i. pp. 513–527.) Ann Arbor, 1870–1.

Allen, Dr. Nathan, The effects of alcohol on offspring. (*Herald of Health*, January.) New York, 1871.

Beard, Dr. George M., Stimulants and narcotics. New York, 1871.

——, A plea for scientific reform. Letter to the Rev. Theodore L. Cuyler, D.D., on the attitude of physicians and scientists towards the temperance cause. New York, 1872.

Vibbert, Rev. George H., Prohibition. Boston, 1871.

Bowditch, Dr. H. P., Alcohol as a nutritive agent. (*Boston Medical and Surgical Journal*, vol. lxxxvi. p. 413.) Boston, 1872.

Edes, Dr., Elimination of alcohol by kidneys and breath. (*Boston Medical and Surgical Journal*, vol. lxxxvi. p. 347.) Boston, 1872.

Ford, Dr. W. H., Normal presence of alcohol in the blood. (*New York Medical Journal*, vol. xv. pp. 361–394.) New York, 1872.

Patton, Rev. William, The laws of fermentation: the wines of the ancients. New York, 1872.

Hay, Dr. W., Paper on the physiological relations of alcohol. (*Chicago Medical Journal*, vol. xxx. pp. 385–389). Chicago 1873.

Mays, Dr. T. G., Alcohol as food. (*New York Medical Journal*, vol. xviii. pp. 401–407.) New York, 1873.
Burr, G., On insanity and inebriety. New York, 1874.
Dudley, Col. T. G., Alcohol: its combinations and adulterations, and physical effects. New York, 1874.
Edmunds, Dr. James, The medical use of alcohol. New York, 1874.
Hitchcock, The entailments of alcohol. Lansing, 1874.
Hobbs, Dr. W., Alcohol and its uses. (*Transactions of the Indiana Medical Society*, vol. xxiv. pp. 1–16.) Indianapolis, 1874.
Palmer, Dr. Alonzo B., On the effects of alcohol in health. (*Peninsular Journal of Medicine*, vol. x. pp. 481–486.) Detroit, 1874.
——, The science and practice of medicine. (Alcoholic poisoning —Alcoholism—Alcoholismus, vol. ii. pp. 719–739.) New York, 1882.
Evans, Charles, A series of essays on the evils of intemperance. Cincinnati, 1875.
Morse, Dr., Report on dipsomania and drunkenness. (Ohio State Medical Society, Columbus, June 10–12, 1873.) Drayton, Ohio, 1875.
Powell, Frederick, Bacchus dethroned. (Prize essay.) New York, 1875.
Weeden, William B., The morality of prohibitory liquor laws. Boston, Mass., 1875.
Carrigan, Dr. A. N., On alcohol. (*Medical and Surgical Reporter*, vol. xxxiv. p. 162.) Philadelphia, 1876.
Felton, Dr., Effects of alcohol on animal temperature. (*New York Medical Record*, Sept. 9.) New York, 1876.
Kellogg, Dr. J. H., The physical, moral, and social effects of alcoholic poison as a beverage and as a medicine. Battle Creek, Michigan, 1876.
Ringer, Sidney, Handbook of therapeutics. New York, 1876.
Does alcohol afford nutrition to the animal tissues? *Atlanta Medical and Surgical Journal*, vol. xiv. pp. 65–73. Atlanta, 1876.
Massachusetts Board of Health Reports for 1871, 1873, 1875, 1877. Boston, Mass.
Hargreaves, Dr. William, Our wasted resources. New York, 1876.
——, Alcohol and man. New York, 1881.
Compton, Dr. W. M., The influence of alcohol. (*Report of Board of Health, Missisippi*, vol. i. pp, 49–78.) Jackson, 1877.
Dunn, J. B., Moody's talks on temperance. New York, 1877.
Hunt, Dr. Ezra M., The Therapeutic value of alcohol as food. New York, 1877.
Pitman, Robert C., Alcohol and the state. New York, 1877.
Kennedy, Dr. J. C., Alcohol: its effects on health, its remedial applications in disease. (*Cincinnati Lancet and Observer*, xx.) Cincinnati, 1877.

McElroy, Dr. Z. Collins, On the disposal of alcohol in human bodies. (*Cincinnati Medical News*, October.) Cincinnati, 1877.

Stephens, C. R., Inebriety or *vini morbus*, a disease, and to be treated as such. Salem, 1877.

Tucker, W. G., Alcohol: is it a food? Albany, 1877.

Centennial Temperance Volume: a memorial of the International temperance conference, held in Phiiadelphia, June, 1876. New York, 1877.

Barton, J. R., Dipsomania: its medical and legal aspects. (*Quarterly Journal of Inebriety.*) Hartford, 1879.

Chenery, E., Alcoholism. Relations of alcoholism to other forms of disease. (*Quarterly Journal of Inebriety.*) Hartford, 1879.

Comings, B. N., Mental strain, and heredity a cause of inebriety. (*Quarterly Journal of Inebriety.*) Hartford, 1879.

Da Costa, J. M., Dementia following alcoholism. (*Medical and Surgical Reporter.*) Philadelphia, 1879.

Fowler, Harriet P., Vegetarianism the radical cure for intemperance. New York, 1879.

Garvin, Dr. L. F. C., What is the dietetic value of wine, beer, etc.? (*Report of Board of Health, Rhode Island*, vol. i. pp. 145–155.) Providence, 1879.

Greenfield, W. S., Alcohol: its use and abuse. New York, 1879.

Kitchen, Dr. D. H., Remarks on alcoholic stimulation. *Practitioner*, vol. xx. pp. 146–156.) Louisville, 1879.

Lykke, Dipsomania. Translated by C. E. Froelich. (*Quarterly Journal of Inebriety.*) Hartford, 1879.

Wilson, Joseph (Med. Dir. U.S. Navy), Naval hygiene. Human health, and the means of preventing disease. Philadelphia, Pa., 1879.

Crothers, T. D., Clinical studies of inebriety. (*Medical and Surgical Reporter.*) Philadelphia, 1880.

Joyce, Hon. Charles H. (U.S. Rep. of Vermont), The alcoholic liquor traffic. New York, 1880.

Petithan, Law against alcoholism, and to institute temperance asylums. *The Alienist and Neurologist*, St. Louis, Missouri, 1880.

Wood, Dr. H. C. (junr.), A treatise on therapeutics, comprising materia medica and toxicology. (Article on alcohol, pp. 118–131.) Philadelphia, 1880.

Cerebral trance, or loss of consciousness and memory in inebriety. (*Quarterly Journal of Inebriety.*) Hartford, Conn., 1880.

Speech in the house of Rep. Washington, D. C., April 3rd, 1880.

Colman, Julia, Alcohol and hygiene: an elementary text-book for schools. (pp. 231.) New York, 1881.

Rogers, R. V., Drinks, drinkers, and drinking. Albany, 1881.

Talks on temperance. New York, 1881.

Ellis, John, The wine question in the light of the New Dispensation. New York, 1882.

Hubbard, Frederick H., The opium habit, and alcoholism. New York, 1882.

Wheeler, Rev. Henry, Methodism and temperance reformation. Cincinnati, 1882.

Baer, Dr. (of Berlin), Insanity from alcohol. (Translated by Dr. Carl Seiler, of Philadelphia, Pa., in *American Psychological Journal*, October.) Philadelphia, Pa., 1883.

Buckham, Dr. T. R., Insanity considered in its medico-legal relations. Philadelphia, Pa., 1883.

Dorchester, Rev. Daniel, Latest drink sophistries; sophistries *versus* total abstinence. Boston, 1883.

——, The liquor problem in all ages. New York, 1884.

Everts, Orpheus, What shall we do for the drunkard? New York, 1883.

Field, Rev. Leon, Oinos. Discussion of the Bible wine question. New York, 1883.

Finch, John B., The people *versus* the liquor traffic. Chicago, 1883.

Mann, Dr. Edward, A Manual of psychological medicine. (Intemperance as cause of insanity, p. 56; Dipsomania, pp. 354–377.) New York, 1883.

Mason, Dr. Lewis D., Alcoholic insanity. (Lecture.) New York, 1883.

Spitzka, Dr. E. C., Insanity: its classification, diagnosis, and treatment. New York, 1883.

Blair, Senator Henry M., Alcohol in politics. (*North American Review*, January, 1884.) New York, 1884.

Gustafson, Axel, The Foundation of Death: a Study of the Drink Question. Boston, 1884.

Lewis, Dr. Dio, Prohibition and persuasion. (*North American Review*, August.) New York, 1884.

Stearns, John M., Prohibition does prohibit. New York, 1884.

Wells, David A., Our experience in taxing distilled spirits. (*Princetown Review*, June–July.) New York, 1884.

GERMANY.

Schrick, Dr. Michael, Verzeychnuss der ausgebrannten Wasser. Augspurg, 1483.

——, Von den geprannten wassern in welcher mass man die zu den gelydern . . . prauchen soll. 1483.

Der Zutrinker. Erffordt, 1512.
Pauli, Johann, Schimpff und Ernst. 1518.
Franck, G., Vom grewlichen Laster der Trunkenheit. 1521.
Stromer, Heinrich, Decreta aliquot medica . . . Utrum ebrietas vino contracta, capitis . . . morbus, etc. Lipsiæ, 1531.
Opsopœus, Vincentius, De Arte Bibendi libri tres. Norimbergæ, 1536. (A most bitter satire, by B. Koch, under the *nom de plume* of Opsopœus. It went through several editions, and was translated also, and had much to do with making a temperance sentiment.)
Weidensee, Eberhard, Ein Sermon von dem grausamen und unmenschlichen laster des volsauffens. Magdeburg, 1540. A most fervid appeal against drink.
Willichius, J., Problemata de Ebriorum affectibus. Francofurti, 1543.
Friedrich. Wider den Saufteuffel. Leipzig, 1552.
De generibus ebriosorum et ebrietate vitandâ, cui adjecimus de meretricium in suos amatores et concubinarum in sacerdotes fide questiones. Erffordt, 1557.
Lullus, Raimundus, Testamentum novissimum. Argentorati, 1571.
Dodoeus, R., Historia vitis vinique et stirpium nonnullarum aliarum. Coloniæ, 1580.
Rasch, Johann, Weinbuch Das ist vom Baw und Pflege u. Brauche des Weins, etc. München, 1581.
Mayr, J., Von dem schweren Misbrauch des Weins. Cöln, 1582.
Horn, G., Hierampelas, oder von dem in der heiligen Schrift wohlbekannten Weine u. Weinbau. Schmalkalden, 1585.
Seidelius, Bruno, De Ebrietate. Hanoviæ, 1594.
Khunrath, Conrad, Medulla destillatoria et medica renovata et augmentata, etc. 1601.
——, Destiller-und Arzneykunst. Leipzig, 1703.
Gretser, J., Mentissa de vino myrrhato et vasis myrrhinis. Ingolstadü, 1608.
Cornarius, Janus, Theologiæ vitis viniferæ (libri iii.). Heidelbergæ, 1614.
Oberbreyer, De Jus Potandi. Heilbronn, 1616.
Magirus, J., De Vinolentia ejusque malis. Francofurti, 1618.
Hauptmann, A., Insignes aliquot Viticulturæ errores. Norimbergiæ, 1642.
Guiens, C., Vitis Historia. Halæ, 1648.
Bruyerinus Campegius, J. B., Cibus medicus, sive de re cibaria libri xxii. (Wine, p. 699, etc.) Norimbergiæ, 1659.
Erberfeldt, H., Disputatio de spiritibus ex vegetabilibus per fermentationem paratis. Helmstadii, 1674.
Waldschmidt, Diss. de ebrietate et insolentibus aliquot ejus affectibus. Giessen, 1677.

Ittig, J. F., Disputatio de temulentia. Lipsiæ, 1678.
Calenus, C. G., Vitis ac viticulturæ ortum. Jenæ, 1679.
Hannemann, J., Dissertatio de usu et abusu inebriantium. Norimbergæ, 1679.
Schmidt, J. A., Dissertatio de Cerevisia ut est alimentum. Jenæ, 1680.
Rast, Ebrietas medice considerata. Regiomont, 1682.
Wedel, G. W., Diss. de vini dulcis plenis. Jena, 1692.
Closius, S., De Spiritus vini. Jenæ, 1697.
Goeckel, E., Curieuse Beschreibung des anno 1694—1695 u 1696, durch das Silberglâtt versüssten samen Weins und der davon enstandenen neuen und vormals unerhörten Weinkrankheit. Ulm, 1697.
Wedel, G. W., Dissertatio de spiritu vini. Jenæ, 1697.
Kölau, Joh., Diss. Jud. circa Ebrietatem. Halæ Magdeburg, 1698.
Breyer, L. F., Dissertatio de potu Aquarum ardentium. Tubingæ, 1698.
Jägersmidt, J. V., Der in denen durch die Silberglätte bestrichenen Weinen verborgte, nun aber entlarvte Mercurius. Ulm, 1699.
Kurze Beschreibung und Unterricht des Weinbaues, nebst dem Weinarz. Dresden, 1700.
Gladbach, J. A., De Ebrietate assidua hydropis causa. Erfordiæ, 1701.
Noel, N. B., Mors in vitro, seu lethifera vini adusti damna ex sola ejusdem astringendi virtute comprobata. Francofurti, 1709.
Sincerus, J., Von dem mit Silberglätt verfälschten Weine. Frankfort, 1709.
De Pre, J. T., Vom Brauch und Missbrauch des Branntweins. Frankfurt und Leipzig, 1723.
Albrecht J. G., De spirituum ardentium usu et abusu diaetetico. Halæ, 1732.
Vogel, S. S., De spirituum ardentium nsu et abusu diaetetico. Halle, Magdeburg, 1732.
Zeidler, Universal Lexicon. (Art. Alcohol.) Halle und Leipzig, 1732.
Neumann, Caspar, Lectiones Publicæ von vier subjectis diaeteticis, nehmlich von den . . . Getränckeu vom Thee, Caffee, Bier und Wein, etc. Leipzig, 1735.
Papen, C. H., De Spiritu vini ejusque usu et abusu. Gottingæ, 1735.
Alberti, De fermentatione vinosa. Halæ, 1736.
Reinick, J. E., De potu vinoso digestionem impedimente magis. Argentorali, 1736.
Göhrs, J. Chr., Dissertatio de ebrietate foeminarum. Halæ Magdeburgicæ, 1737.
Keller, S., De poculis sanitatis, poculis morborum et mortis. Vitembergæ, 1738.

Nauheimer, Joannes J., Dissertatio . . . de sobrietate. Enfordiæ, 1741.
Mauchhardt, B. D., Dissertatio de Vini turbidi clarificatione. Tubingiæ, 1742.
Abrahamovitz, De Spirituosorum liquorum noxa atque utilitate. Halæ, 1743.
Matthison, H. G., Dissertatio de Vinis lythagyrio infectis. Gryphiswaldiæ, 1745.
Beck, Henricus Jacobus, Dissertatio de Ebrietate. Heidelbergæ, 1746.
Hor, Abhandlung von der Trunkenheit. Strasburg, 1747.
Knoll, J. C. G., Von des schädlichen Wirkungen des übermässigen Branntweintrinkens. Wernigerode, 1750.
Quelmalz, S. T., Programma de Vinis magonisatis. Leipzig, 1751.
Weber, J., Commentatio juridica de crimine adulteratorum vinorum. Francofurti et Lipziæ, 1751.
Buechner, A. E., Dissertatio de vino ut medicina et veneno. Halæ, 1756.
Grotian, J. A., Güldene Kunst Branntwein zu brennen. Nordhausen, 1761.
Scherer, J. A., De Genesi Ebrietatis. Jenæ, 1763.
Gmelin, P. F., De noxis ex abusu potuum spirituosorum. Tubingiæ, 1767.
Hippocrates, Hippokrates Werke. Aus dem griechischen übersetzt (von J. F. K. Grimm). Altenburg, 1781–92.
Cartheuser, F. A., Abhandlungen über die Verfälschungen der Weine, welche der Gesundheit schädlich sind. Giessen, 1773.
Lineke, P. C., De Noxis ex potu disserit. Lipsiæ, 1774.
Anleitung zur verbesserung der Weine in Teutschland. Frankfurt und Leipzig. 1775.
Hagen, H., Abhandlungen, chemischen und physikalischen Inhalts. Königsberg, 1778.
Hemstein, T. G., Causa Inebriandi spirituum vinosorum. Teutoburgi ad Rhenum, 1780.
Ploncquet, W. G., Warnung an das Publicum vor einem in manchen Branntweine enthhaltenem Gifte sammt den Mitteln es zu entdecken u. auszuscheiden. Tübingen, 1780.
Frank, Johann P., System einer vollständigen medicinischen Polizey. Mannheim, 1784.
Martins, E. W., Etwas über die Weine und ihre Verfälschungen. Regensburg, 1789.
Ackermann, J. C. G., Regimen sanitatis Salerni sive Scholæ Salernitanæ de conservanda bona valetudine præcepta. (Wine, p. 157.) Stendaliæ, 1790.
Pereira, J., Handbuch der Heilmittellehre. Von. R. Buchheim (B. 11, p. 130, Bier). 1790 (?).

Prætorius, K. G., Beantwortung der Preisfrage; ob es besser, das Bier unter obrigkeitlicher Aufsicht oder in Privatheusern brauen zu lassen? Berlin, 1791.

Hoffmann, Carl A., Ueber den Hopfen und chemische Untersuchung desselben in Rüchsicht seiner Anwendung zum Bierbrauen. Erfurt, 1792.

Fischer, Friedrich C. J., Geschichte des teutschen Handels. Hannover, 1793.

Jœnichs, W., De spiritus vini usu et abusu. Goettingæ, 1793.

Trommsdorff, J. B., Journal der Pharmacie. Bd. xli. p. 108, etc. Article by von Baptist Ziz. Leipzig, 1793–1817.

Gmelin, J. F., Gesch. der Chemie seit dem Wiederaufleben der Wissenschaften bis an ende des 18th Jahrhunderts. (Brandy, Bd. 1, p. 70, etc.). Gottingen, 1797–99.

Khon, A., A nimia spiritus vini ingurgitatione mors repentina. Miscell Acad. nat. cur. Dec 3, an v, vi. p. 166. Francofurti et Lipsiæ. (1797.)

Roessig, C. G., Die Geschichte der Œkonomie der vorzüglichsten Länder u. Völker. Leipzig, 1798.

Anton, Carl G., Geschichte der Teutschen Landwirtschaft. Görliz, 1799–1802.

Hufeland, Christoph W., System der Practischen Heilkunde. Jena und Leipzic, 1800.

——, Ueber die Vergiftung durch Branntwein. Berlin, 1802.

Scherer, A. N., Allgemeines Journal der Chemie. (Wine.) Leipzig, 1800.

Neuenhahn, Carl C. A., Die Branntweinbrennerei nach theoretischen praktischen Grundsätzen. Erfurt, 1802–1803.

Sickler, Friedrich K. L., Allgemeine Geschichte der Obstkultur von den Zeiten der Urwelt an bis auf die gegenwärtigen herab. Bd. 1, Frankfurt am Main, 1802.

Kanhlen, L. J., Ueber den diätetischen Gebrauch des Branntweins. Köln, 1803.

Riem, Johann, Die Getränke der Menschen, pp. 247, etc. Dresden, 1803.

Gehlen, Adolph F., Allgemeines Journal der Chemie. (Wine.) 1804.

Wurtzer, J., Bemerkungen über den Branntwein, in politischer, technologischer und medicinischer Hinsicht. Cöln, 1804.

Wine Adulterations with Litharge. Beckmann Beiträge zur Geschichte der Erfindungen (957, f. 27, III. Bd. s.). 1782–1805.

Brumbey, J. A., Com. de adulterationibus spiritus frumenti sanitati infectis. Helmstadii, 1806.

Hoffbauer, Johann C., Die Psychologie in ihren Hauptanwendungen auf die Rechtspflege. *Halle*, 1808.

Hubbe, C. J. H., Ueber die Schädlichkeit des Branntweins, als eines gewöhnlichen Getränkes. In Verhandlungen und Schriften der Hamburger Gesellschaft (T. vii. p. 531), 1808.

Frank, Joseph, Praxeos Medicinæ universæ præcepta. Lipsiæ, 1811–1818.

Remer, W. H. G., Lehrbuch der polizeilich-gerichtlichen Chemie. Helmstädt, 1812. (pp. 212, etc.) Helmstädt, 1812.

Zosimus, Panopolitanus, Zosimi Panopolitani de Zythorum confectione fragmentum nunc primum Græce et Latine editum. Accedit Historia Zythorum sive Cerevisiarum quarum apud veteres mentio fit. Scripsit C. G. Gruner. Solisbaci, 1814.

Munch, Al., Abhandlung über die Wirkungen der Weins. Giessen, 1815.

Löbenstein Löbel, E. L., Die Anwendung und Wirkung der Weine und deren Verfälschungen. Lipzeig and Altenburg, 1816.

Rosenmüller, Ernst F. C., Das alte und neue Morgenland; oder Erläuterungen den heiligen Schrift aus der natürlichen Beschaffenheit den Sagen, Sitten und Gebräuchen des Morgenlandes. Bd. I. p. 817. Leipzig, 1818–1820.

Renard, J. Kl., Der Branntwein in diätetischer und medicinisch-polizeilischer. Hinsicht, Mainz, 1817.

Ritter, G. H., Die Weinlehre. Mainz, 1817.

Bruhl-Cramer, C. von, Ueber die Trunksucht und eine rationelle Heilmethode derselben. Berlin, 1819.

Henke, A., Ueber Gerichtsärztliche Beurtheilung der Trunkenheit und Trunksucht, etc. Bamberg, 1820.

Kopp, Beob. im Gebiete der ausübenden Heilkunde. Frankfurt, 1821.

Schlœter, J. H., De ratione qua potus spirituosi in organismum agunt. Halæ, 1821.

Kohring, J. F. de, Dissertatio de delirium tremens. Berlin, 1822.

Goeden, De delirium tremens. Berlin, 1825.

Ebel, Fridericus Agustus, De spirituosorum imprimis immodice haustorum effectu. Berol, 1826.

Weigel, Car. J., Dissertatio de delirii trementis pathologia. Leipzig, 1826.

Wurzer, F. J. R., De Alcohole. Marburgicattorum, 1826.

Elwert, Wilhelm, Medicinische Beobachtungen. Hildesheim, 1827.

Barkhausen, Georg, Beobachtungen über den Säuferwahnsinn. Bremen, 1828.

Clarus, J. C. A., Beiträge zur Erkenntniss und Beurtheilung zweifelhafter Seelenzustände. Leipzig, 1828.

Fischer, A. T., Die Nachtheil, den die Verfälschung der Biere und Branntweine auf Geist und Körper aüssert. Dresden, 1829.

Lenz, Ueber Trunksucht (*Rust Magazine*, 1829).

Gast, T. X., De Cerevisiâ. Dissertatio Inauguralis. Monachii, 1830.

Speyer, Gutachten über die plötzlicher, wahrscheinlich durch übermässigen Genuss des Branntweins herbeigeführte, Todesart dreier Personen. (Henke's Zeitschrift, l. xx. p. 27.) 1830.

Friedreich, J. B., Allgemeine Diagnostik der psychischen Krankheiten. Würtzburg, 1832.

Gatterer, Christoph W. J., Literatur des Weinbaues aller Nationen. Heidelberg, 1832.

Hünefeld, Friedrich L., Die Chemie der Rechtspflege oder Lehrbuch der polizeilich-gerichtlichen Chemie. Berlin, 1832.

Dierbach, Johann H., Flora Mythologica, oder Pflanzenkunde in Bezug auf Mythologie und Symbolik der Griechen und Römer. Frankfurt am Main, 1833.

Lippich, Fr. W., Grundzüge zur Dipsobiostatik, etc. Laibach, 1834.

Krauss, Carolus, De spirituosis e tuberibus Solani confectis. Berolini, 1835.

Albers, Johann F. H., Beobachtungen auf dem Gebiete der Pathologie, etc. Bonn, 1836–1838.

Willing, E., Bemerkungen über die in Handel vorkommenden Branntwein-Arten, etc. Holzminden, 1837.

Most, Georg F., Ausführliche Encyklopädie der gesammten Staatsarzneikunde. (Bd. 1, p. 652.) Leipzig 1838–40.

Sobernheim, Joseph F., and *J. F. Simon*, Handbuch der praktischen Toxikologie. Berlin, 1838.

Bötticher, J. H., Ueber den Branntwein-Genuss, etc. Hannover, 1839.

——, Geschichte der Mässigkeitsgesellschaften in den Norddeutschen Landesstaaten, etc. Hanover, 1841.

Liebetrut, Friedrich, Schaden und Nutzen des Branntweinstrinken. Potsdam, 1839.

Roesch, Carl H., Der Missbrauch geistiger Getränke in pathologischer, therapeutischer, medicinisch-polizeilicher und gerichtlicher. Hinsicht. Tübingen, 1839.

Meinecke, G. W. F., Ueber die Wirkung geistigen Getränke, etc. Oldenburg, 1840.

Otto, Friedrich J., Lehrbuch der rationellen Praxis der land wirthschatflichen Gewerbe. Braunschweig, 1840.

Wüstenfeld, F., Geschichte der Arabischen Aerze u. Naturforscher. Nach den Quellen bearbeitet. Göttingen, 1840.

Schmidt, J., De Specifica, quæ abusu potuum Spirituosorum exoritur morbosa dispositione, etc. Berolini, 1841.

Mitscherlich, Carl G., Wirkung der Alkohols und Aethers auf den Organismus. (Schmidts Jahrb. t. xl. p. 151.) 1843.

——, Lehrbuch der Arzneimittellehre. Berlin, 1847–1861.

Singowitz, Die Geistesstörungen in ihren organischen Beziehungen, etc. Berlin, 1843.

Hoffbauer, J. H., Die psychischen Krankheiten, etc. Berlin, 1844.

Böcker, Friedrich, W., Ueber eine Ursache des Branntweingenusses. Braunschweig, 1845.

——, Beiträge zur Heilkunde, etc. Crefeld, 1849.

Flüring, August E., Bier ist Gift! Leipzig, 1845.

Griesinger, Wilhelm, Die Pathologie und Therapie der psychischen Krankheiten. Stuttgart, 1845.

Carlowitz, Georg H. von, Versuch einer Culturgeschichte des Weinbaues, von der Urzeit bis auf unsere Zeiten. Leipzig, 1846.

Kopp, Hermann, Die Geschichte der Chemie. Braunschweig, 1847.

Oesterlen, Friedrich, Handbuch der Heilmittellehre. Tübingen, 1847.

Klencke, P. F. H., Untersuchungen über die Wirkungsweite des Branntweingenusses auf den lebenden Organismus. Eine wissen schaftliche Antwort, etc. Braunschweig, 1848.

——, Die Verfälschung der Nahrungs-Mittel und Getränke, etc. Bd. 5, 6, 7, Alkohol s. 283–308. Brantwein Liqueure und Bier 308–336. Bierliefe, 336–337. Ale, 378–421. Wein, 701–793. Leipzig, 1856–1858.

Bock, Carl E., Lehrbuch der pathologischen Anatomie und Diagnostik. Leipzig, 1849.

König, J., Die menschlichen Nahrungs und Genussmittel. Berlin, 1850.

——, Jahresberichte des Untersuchungsamtes für Lebensmittel, etc. Münster, 1878.

——, Chemie der menschlichen Nahrungs und Genussmittel. Berlin, 1879. Münster, 1880.

Moleschott, Jacob, Die Physiologie der Nahrungsmittel. Darmstadt, 1850.

——, Physiologie der Nahrungs-Mittel. Giessen, 1859.

Wagner, Rudolph, Die Chemische Technologie. Leipzig, 1850.

Schouw, Joakim F., Die Erde, die Pflanzen und der Mensch, etc. Leipzig, 1851.

Nasse, Zur Therapie des Branntwein Missbrauchs. 1853.

——, Irrenfreund. 1870.

Pauly, A., Real Encyclopädie der Classischen Alterthumswissenschaft. (Bd. VI. Abth, 2 p. 2631.) Stuttgart, 1852.

Schneider, F. C., Die Gerichtliche Chemie für Gerichtsärtze und Juristen bearbeitet. (pp. 343, etc.) Wien, 1852.

Volz, K. W., Beiträge zur Kulturgeschichte. Leipzig, 1852.

Donders, F. C., Die Nahrungs-stoffe. Grundlinien einer allgemeine Nahrungslehre. Aus den Holländischen uebersetzt von Dr. Bergrath. Crefeld, 1853.

Strabo, Geographica. Græce cum versione reficta. Curantibus C. Müllero et F. Dübnero. Paris, 1853–1858.

Jenner, Andreas L. O., De alkoholismo chronico. (Academia. Christiana Albertina Schriften . . . aus dem Jahre. Bd. 2. 1854.) Kieliae, 1855.

Klemm, Gustav Friedrich, Allgemeine Culturwissenschaft. (11 B. Einleitung, Das Feuer. die Nahrung, Getränke, Narcotica.) Leipzig, 1855.

Virchow, Rudolph, Handbuch der speciellen Pathologie und Therapie. Bd. ii., Abth 1, pp. 295, etc. Erlangen, 1855.

Virchow, Rudolph, Sammlung gemeinverständlicher wissenschaftliche Vorträge, Herausgegeb. von R. Virschow und Frh. v. Holzendorff. Berlin, 1868.

Chevallier, A., Wörterbuch der Unvereinigung u. Verfälschungen der Nahrunks-Mittel, etc. Göttingen, 1856, 1857.

Hessel, Die alterthum üblich gewesenen Methoden der Weinveredlung. Marburg, 1856.

Petersen, Johann W., Geschichte der deutschen Nationalneigung zum Truncke. Curiosa et Jocosa antiquoria ac nova 1. Stuttgart, 1856.

Jacobi, W., Experimentelle Untersuchungen über die Wirkung des Alcohols, etc. Inaugural Dissertation, Deutsche, Klinik, 1857, No. 22, 26, 31, 34. Marburg, 1857.

Liebig, Justus von, Poggendorff und Wöhler, Handwörterbuch der reinen und angewandten Chemie. (Brandy, pp. 493–526.) Braunschweig, 1857.

Schubarth, Ernst L., Handbuch der technischen Chemie, etc. (Bier, Bd. iii. pp. 521, etc. (Brandy, 557, etc.) Berlin, 1851.

Uhlemann, M., Handbuch der gesammte Agyptische Alterthumskunde. (Bd. ii. p. 137.) Leipzig, 1857.

Franque, Arnold von, Das delirium tremens. München, 1859.

Lenz, Harald O., Botanik der alten Griechen und Römer. Gotha, 1859.

Phillipe, A., Geschichte der Apoteker bei den wichtigsten Völkern, etc. (Discovery of Alcohol, p. 399.) Jena, 1859.

Reich, Eduard, Die Nahrungs und Genussmittel-kunde historisch, naturwissenchaftlich und hygienisch. 2 Bd. Göttingen, 1860.

Franz, D., Alcohol quid in respiratione cordisque actione efficiat. Gryphiswaldiæ, 1862.

Huseman, August, Handbuch der Toxicologia. Berlin, 1862.

Cros, Action de l'alcool amylique sur l'organisme. (Thèse pour le doctorat en médecine.) Strassbourg, 1863.

Voelckel, P., Ueber den alcoholismus. Wurzburg, 1863.

Gottloeber F., De Alcoholis potionumque alcoholicarum usu et effectu. Berolini, 1864.

Krieger, J. A., De Alcoholismo Chronico. Berolini, 1864.

Zimmerman, Johann G., Von der Erfahrung in der Arzneykunst. (Bd. ii. p. 303, wein.) Zurich, 1864.

Vogelsang Eduardus, De Alcoholisme Chronico. Berolini, 1865.

Möller, J., Ueber den Alkohol. Berlin, 1867.

Schultze, Rudolph, Geschichte des Weins und der Trinkgelage, etc. Berlin, 1867.

Brosius, Der Irrenfreund, 1868.

Vambery, Speisen u. Getränke im Ismaëlitischen Oesten. Westermanns illustrirte Deutsche Monatshefte, 1868. 24 Band S. 158. 1868.

Bouvier, Cunibert J. M., Untersuchungen ueber die Wirkung Alkohols auf die Körpertemperature. Bonn, 1869.
——, Pharmakologische Studien üeber den alkohol. Berlin, 1872.
Haberkorn, Friedrich, Alkoholmissbrauch und Psychosen. Dissertation. 1869.
Höche, Die Verfälschungen des Bieres : Vierteljahrschift für gerichtliche. Medicin, 1869.
With, Carl, Ueber Dipsomanie. Inaugural Dissertation. Berlin, 1869.
Neubauer, C., Chemie des Weines. 1870.
Wenzel, C. B., Einiges über alcohol und seine wirkung. Leipzig, 1870.
Bolley, Pompejus A., Handbuch der technisch-chemischen Analyse, v. Stahlschmidt bearbeitet. Aschen-analysen von E. v. Wolff. 1871 und 1880.
——, Handbuch der chemischen Technologie. (On essential oils, iv. i. p. 533.) Braunchweig, 1876.
Stark, Carl, Die psychische degeneration der Französichen Volkes ihr pathologischer character ihre symptomen und ursuchen. Stuttgart, 1871.
Rabow S., Ueber die Wirkung des alkohol auf die Körportemperatur und den puls. Strassburg, 1872.
Rose, Edmund, Delirium tremens und Delirium traumaticum. Stuttgart, 1872.
Schmidt, F., Ueber die physiologischen Wirkungen und die therapeutische Verwendung des alcohols. Halle, 1873.
Baltzer, Leonhard, Die Nahrungs und Genussmittel des Menschen in ihrer chemischen Zusammensetzung und physiologischen Bedeutung. Nordhausen, 1874.
Heuber, Die Luetische Erkrankung der Hirnarterien. 1874.
Sandmann, P., Eine experimentalstudie üeber die Wirkung des Alcohol und Aether auf die circulation. Griefswald, 1874.
V. Kraft, Irrenfreund. 1874.
Hotzen, Otto, Die Erblichkeit. Leipzig, 1875.
Krafft-Ebing, R. von, Lehrbuch der gerichtlichen Psychopathologie. Stuttgart, 1875.
——, Lehrbuch der Psychiatrie auf Klinischer Grundlage für Praktische Arzte und Studirende. Stuttgart, 1883.
Schmidt, A., Die Ausscheidung des Weingeistes durch die Respiration. *Centralblatt*, f. die med Wissensch. (Vol. xiii. p. 371.) Berlin, 1875.
Binz, Carl, Ausscheidung des Weingeistes durch nieren und Lungen. (Arch. f. exper. Path. u. pharmacol.) Leipzig, 1877.
Liebermann, Leo, Anleitung zur chemischen Untersuchungen. Stuttgart, 1877.
——, Chemische Praxis. Stuttgart, 1883.
Reitlechner, C., Die Analyse des Weines. 1877.

Stöllner, Irrenfreund. 1877.
Taguet, Ueber die erblichen Folgen der Alcoholismus. (*Ann Med. Psych.*, July.) 1877.
Yvon, Salicylsäure im Weine. (*Journ. Pharm Chem.*, p. 593). 1877.
Baer, A., Der Alcoholismus, seine verbreitung, etc. Berlin, 1878.
——, Ueber Trunksucht und Verbrechen. (*Arch. f. Psych*, x. p. 231.) Berlin, 1880.
Geissler, E., Ein Beitrag zur Frage der Verfälschung der Lebensmittel. 1878.
Reischauer, C., Chemie d. Bieres. 1878.
Schmid, W., Anleitung zu sanitarisch und polizeilich chemichen Untersuchungen. 1878.
Schnacke, G. E. A., Wörterbuch der Prüfungen verfälschter, verunreinigter und imitirter Waaren. Gera, 1878.
Wittstein, G. C., Taschenbuch der Nahrungs u. Genussmittelehre. 1878.
Bericht des Vorstandes über die Ausführung früherer Vereinsbeschlüsse (Verein der deutschen Irrenärzte) emeine Trinkerfrageür Staatsaufsicht der Irrenanstalten. (*Allgemeine Zeitschrift f. Psychiatrie*, etc. Bd. xxxvi. p. 733.) Berlin, 1879.
Dietzsch, O., Die wichtigsten Nahrungsmittel und Getrânke. 1879.
Hilger, A., Die wichtigsten Nahrungs und Genusmittel wesentliche Bestandstheile, verfälschungen nebst Prüfung. 1879.
Stark, Carl, Die physchische Degeneration. Binz Gründzuge der Arzneimittellehre. 1879.
Einundvierzigster Jahresbericht der Enthaltsamkeits Gesellschaft des Danziger Landkreises. 1879–1880, Königsberg, 1880.
Hirschling, H., Besprechungen einger der wichtigsten Nahrungsmittel. 1880.
Samuel, S., Allgemeine Pathologie. Stuttgart, 1880.
Galle, T., Ueber die Beziehungen des Alcoholismus Zur Epileptic. (Inaug. Dissert.) Berlin, 1881.
Voigt, C. V., Physiologie des allg. Stoffwechsels und der Ernährung. (L. Hermann's Handbuch der Physiologie, Bd. vi. 1 th.) Leipzig, 1881.
Ortloff, Die Nahrungs und Genussmittelverkehr. Weimar, 1882.
Palm, R., Die wichtigsten und gebrauchlichsten menschlichen Nahrungs—Genusmittel und Getränke. 1882.
Pettenkofer, Max von, Handbuch der Hygiene und der Gewerbekrankheiten. (Contributed by a number of the principal physicians in Germany. Edited by Prof. M. V. Pettenkofer and Prof. H. V. Ziemssen.) | Leipzig, 1882.
Von Speyr, Die Alcoholischen Geisteskrankheiten im Basler Irrenhause, etc. Berlin, 1882.
Bodländer, Guido, Pflügers Arch. f. Physiologie. Bd. 32. Sept., 1883.

Falck, Vergiftung durch alkohol und alcoholische Getränke. Handb. der specellen Pathologie, etc. 1883.
Harnack Erich, Lehrbuch du Arzneimittellehre und Arzneiverordnungslehre. (Founded on Buchheim's Arzneimittellehre, 3rd ed. vol. i.) Hamburg und Leipzig, 1883.
König, J., Die menschlichen Nahrungsund Genussmittel. (Vol. ii. Die Alcoholischen Getränke, pp. 449–600.) Berlin, 1883.
Ruetz, Otto, Wie lassen sich Verfälschungen d. Nahrungs Genuss und Consumarticle leicht und sicher nachweisen. Neuwied und Leipzig, 1883.
Wolfers, Pflügers, Arch. f. Physiologie. *Bd.* 32. Jan., 1883.
Ziemssen, H. von, Handbuch der Allgemeine Therapie. 1 B. (Article by Prof. Bauer.) Leipzig, 1883.
Kornfeld, Hermann, Handbuch der Gerichtlichen Medicin in Beziehung zu der Gezetsgebung Deutschlands und des Auslandes. (Alkohol, s. 241.) Stuttgart, 1884.
Hirsch, E., Die Trunksucht und ihre Bekämfung eine Denkschrift Oberhausen. 1884.
Nencki, Correspondenz für Schweitzer Aerze. N. 5. 1884.

FRANCE.

Stephanus, Pater C., Vinetum, in quo varia vitium, uvarum, vinorum antiqua latina et vulgaria nomina item ea, quæ ad vitium culturam ab antiquis expressa sunt ac recepta vocabula continetur. Parisiis, 1537.
Columella, L. J. M., De re rustica (lib. x. 116). Parisiis, 1549.
Diodorus, Siculus, Bibliotheca historica (lib. i. 3, 4, rebus Ægyptiacis). Parisiis, 1549.
Dioscorides, Pedacius, Libro octo Græce et Latine. Parisiis, 1449.
Plinius, Secundus Caius, Naturalis historiæ (lib. xxxvii.). Parisiis, 1549.
Gratarolus, De vini natura. Argentorati, 1565.
Alexis de Piedmont, Les Secrets du Seigneur Alexis Piedmontios augmentez d'un livre de distillation, avec figures des fourneaux. Paris, 1576.
Textor, V., Traicté de la nature du uin et de l'abus taut d'iceluy que des autres brewages. Paris, 1604.
Simeon, Seth, Antiocheni volumen de alimentorum facultatibus juxta ordinem literarum digestum. Lutetiæ Parisiorum, 1658.
Cusson, N., and *H. Mathiev*, Ergo vinum vitæ et staturæ detrahit. Parisiis (Paris), 1667.
Rococ, L. P., An aqua vitæ aqua mortis? (Thèse pour doctorat.) Paris, 1743.

is not the first, have been in over ten times. A comparison of five years will show how women have been steadily getting worse in this respect:—1878, 5673 females; 1879, 5800 females; 1880, 6773 females; 1881, 7946 females; 1882, 8946 females. This preponderance of women, according to the competent testimony of the Rev. J. W. Horsley, is almost entirely due to the special character, and the increase, of female intemperance. . . . One cause against which the *Lancet* has nobly protested is what is familiarly known as the Grocers' Licences Act. The repeal of that Act, we feel persuaded, would put a decided check upon the increase of female intemperance, and should be urgently pressed upon the Legislature by all classes of social reformers."

Mr. George R. Sims on the social effects of the grocers' licences.

The following picture is taken from the chapter on "The Secret Sin," in the *Social Kaleidoscope* by George R. Sims. Drawn by a pen to which the world is deeply indebted for a circumstantial knowledge of the drink-evil in its connection with poverty, and for striking practical suggestions as to remedies and reforms, its details are vouched for from personal observations.

"The pen almost hesitates brutally to describe a high-bred, lovely woman by the word 'drunkard.' It seems as if such an appellation could give rise in the mind of the reader only to vicious, coarse, degraded womanhood. It is, alas! a revelation of these later days of modern civilization that intemperance is almost as prevalent among the higher ranks of female society as it is among the very lowest. There is, however, this difference. Sally Giles, of Lant Street, Borough, gets drunk in the public-house and rolls about the streets; Lady Clara Sangazur drinks in her boudoir, and dozes off her 'bad headache' in the quietude of her bedchamber. We know through the police reports, and we see with our eyes, the havoc which drink is making among the lower orders; its ravages in the upper classes of society are known only to the doctor and the friends of the family, save when every now and then an aristocratic divorce case reveals the fact that the lady was 'intemperate.' Seeing it not, good folks are inclined to doubt its existence. Alas! it is the great social evil of the day; and until it is thoroughly exposed, the means taken to stamp it out must necessarily be insufficient. Look at

Esquirol, Jean E. D., Des maladies mentales. Paris, 1838.
Royer-Collard, H., De l'usage et de l'abus des boissons fermentées. (Thèse de concours.) Paris, 1838.
Buret, Antoine Eugéne, De la misère des classes laborieuses en Angleterre et en France. Paris, 1840.
Fuster, Joseph J. N., Des maladies de la France dans leurs rapports avec les saisons ou histoire médicale et météorologique de la France. Paris, 1840.
Villerme, Louis René, Tableau de l'état physique et moral des ouvriers. Paris, 1840.
Flourens, Marie J. P., Recherches expérimentales sur les propriétés et les fonctions du système nerveux. Paris, 1842.
Michea, Claude F., Du Délire des Sensations. Paris, 1846.
Bouchardat et Sandras, De la digestion des boissons alcooliques et de leur rôle dans la nutrition. In Annales de chimie et de physique, 3e série, tome xxi. p. 446. (Annuaire de thérapeutique.) Paris, 1847.
Lucas, Prosper, Traité philosophique et physiologique de l'hérédité naturelle, etc. Paris, 1847–1850.
Marcel, Claude N. S., De la folie causée par l'abus des boissons alcooliques. (Thèse pour doctorat.) Paris, 1847.
Dumeril et Demarquay, etc., Recherches expérimentales sur les anesthétiques. Paris, 1848.
Tardieu, Auguste A., Observations medico-legales sur l'état d'ivresse. Paris, 1848.
Labourt, L. A., Recherches historiques et statistiques sur l'Intempérance, etc. Paris, 1848.
La Borderie Boulon Léonard R., De la pneumonie consécutive à l'intoxication alcoolique. (Thèse pour doctorat.) Paris, 1849.
Bergeret, Louis F. E., De l'abus des boissons alcooliques, de ses funestes effets sur l'homme et la société. Lons-le-Saulnier, 1851.
Brierre, de Boismont, Alexandre, Des Hallucinations. Paris, 1852.
——, Du suicide et de la folie suicide. Paris, 1856.
——, L'Hérédité au point de vue de la médecine légale. (Annales de Hygiène.) Paris, January, 1875.
Ducket, Dictionnaire de la Conversation. (Article *Alcohol.*) Paris, 1852.
Beuregard, F. V., Causeries villageoises sur les dangers moraux physiques et sociaux qui résultent de l'abus des liqueurs fortes. Paris, 1853.
Falret, J., Recherches sur la folie paralytique et les diverses paralysies générales. (Thèse pour doctorat.) Paris, 1853.
Lassègue, P., De l'alcoolisme chronique envisagé dans ses rapports avec la paralysie générale: Archives générales de médecine, 5 série, tome i. Paris, 1853.
Reber, Léon, De l'alcoolisme chronique. (Thèse pour doctorat, No. 205.) Paris, 1853.

Burdel, E., De l'Ivrognerie et ses effets désastreux, etc. Bourges, 1854.

Delbecq, C., De l'influence des boissons alcooliques sur la santé. Paris, 1854.

Flourens, P., De la Longevité Humaine. Paris, 1854.

Le Teatotalisme, Revue Britannique, tome ii. pp. 445, etc. Paris, 1854.

Neveu-Derottrie, V., De l'abus des liqueurs alcooliques. (Thèse pour doctorat.) Paris, 1856.

Bernard, Claude, Leçons sur les effets des substances toxiques et médicamenteuses, pp. 426–435. Paris, 1857.

Compte Rendu Congrès de bienfaisance de Francfort-sur-Main. 1857.

Morel, Benedict A., Traité des Dégénéresceuses physiques, intellectuelles et morales de l'espèce humaine. Paris, 1857.

——, Traité des maladies mentales. Paris, 1860.

——, L'Hérédité morbide progressive. (*Archives générales de médecine.*) Paris, 1867.

Parent-Duchatelet, Alexandre, J. B., De la Prostitution dans la ville de Paris. Paris, 1857.

Neyremand, E. De, De la nécessité de réprimer l'ivresse. Paris, 1858.

Motet, A. A., Considérations générals sur l'Alcoolisme. (Thèse pour doctorat.) Paris, 1859.

Thomeuf, Léon, Essai clinique sur l'alcoolisme. (Thèse pour doctorat.) Paris, 1859.

Bourgeois, L. X., Les passions dans leurs rapports avec la santé et les maladies. (L'Amour.) Paris, 1860.

Demeaux, Note relative à l'influence de l'ivresse sur la fécondation. Académie des Sciences. Paris, 1860.

——, Sur l'Alcoolisme. Note à l'Académie des Sciences. Paris, 1860.

Dezwarte, Aimé, De l'influence de l'abus des alcooliques sur la marche et le traitement des maladies aguës. (Thèse pour doctorat.) Paris, 1860.

L'Allemand, Ludger, Perrin, et *Duroy*, Du Rôle de l'Alcool, et des anesthèsiques dans l'organisme. Paris, 1860.

Leudet, Emile, Etude sur lictière déterminé par l'abus des boissons alcooliques. Société de biologie, 3e série, tome ii. Paris, 1860.

——, Des ulcères de l'estomac à la suite des abus alcooliques Congrès médico-chirurgique de Rouen. 1863.

Racle, Victor A., De l'Alcoolisme. (Thèse pour le concours.) Paris, 1860.

Bouchardat, Adolphe, Liqueurs fortes. (Entretiens populaires de l'association polytechnique.) 2e série. Paris, 1860.

——, De l'usage et de l'abus des boissons fermentées et des liqueurs fortes. (Conférence de l'Association polytechnique.) *Annales de thérapeutique*, p. 208. Paris, 1862.

Bouchardat, Adolphe, L'eau-de-vie et ses dangers. Paris, 1863.
——, Traité d'hygiène publique et privée, basée sur l'étiologie." Paris, 1883.
Issartier, F., De l'Alcoolisme moderne, etc. Paris, 1861.
Lebeuf, V. F., Les Vins Nouveaux du Midi et du Nord, ou l'art de les couper, colorer, désacider, bonifier, vieillir, clarifier, etc. Paris, 1861.
——, Traité de l'amélioration des liquides tels que vins, alcools, eau-de-vie, liqueurs, etc. Paris, 1861.
Rabot, L., Du cidre, de son analyse, de sa préparation, de sa conservation et des falsifications, etc. *Annales d'Hygiène* publique et de médecine legale, 11e série, tome xvi. p. 3.) Paris, 1868.
Anselmer, Victor, De l'Empoisonnement par l'absinthe. 1862.
Contesse, Alphée, Etudes sur l'alcoolisme et sur l'étiologie de la paralysie générale. (Thèse pour doctorat.) Paris, 1862.
Doubeveyer N. P., L'ivrognerie, Seul moyen vraiment efficace d'y mettre un terme. 1862.
Krans, L'alcoolisme et la phthisie. (*L'Unitn Médicale*, seconde série, tome xiv.) Paris, 1862.
Launay, L'Alcoolisme son influence sur la production de la phthisie et des troubles menstruels. (*L'Union Médicale*, second série, tome xiv.) Paris, 1862.
Lunel, Adolphe B., Traité de la Fabrication des Vins. Paris, 1862.
Baudot, Marc A., De la Destruction de l'Alcool dans l'Organisme. (*L'Union Médicale.*) 1863.
Guelle, A., De l'utilité de medication alcoolique dans quelques états morbides. Paris, 1863.
Fournier, A., Alcoolisme. Le Nouveau Dictionnaire de médecine et de chirurgie pratique (tome i. pp. 617–689). Paris, 1864.
Girardin, J. P. L., Considérations sur l'usage et l'abus de l'eau-de-vie, etc. 1864.
Jaccoud, Sigismond, Nouveau Dictionnaire de Médecine et de Chirurgie Pratique, tome i. Paris, 1864.
——, Sur l'Alcool, pp. 603–677.
——, Alcoolisme, pp. 617–689. (Fournier.)
——, Alcoolisme. (Pathologie Interne.) Paris, 1877.
Lagarosse, Thèse de la folie alcoolique. Paris, 1864.
Perrin, De l'influence des boissons alcooliques prises à doses modérées sur la nutrition. (*Gazette des hôpitaux*, xxxviii. p. 370.) Paris, 1864.
——, Action physiologiques de l'alcool. (Dictionnaire encyclopédique des sciences médicales.) Paris, 1865.
Voisin, A., De l'état mental dans l'alcoolisme aigüe et chronique, etc. Paris, 1864.
Behier, L'emploi thérapeutique de l'alcool. (Dictionnaire encyclopédique des sciences médicales.) Paris, 1865.

Debourge, Le Buveur, son présent et son avenir; le présent et l'avenir de sa famille, de sa descendance et de la société. Paris, 1865.
Jolly, Paul, Études hygièniques et médicales sur l'alcool. (*Bulletin de l'Académie de Médicine*, tome xxxv.) Paris, 1865–1866.
Lanceraux, E., Alcoolisme. (Dictionnaire encyclopédique des sciences médicales.) Paris, 1865.
——, Étude sur les altérations produites par l'abus des boissons alcooliques. (*Gazette Médicale* de Paris.) 1865.
——, De l'alcoolisme et de ses conséquences au point de l'état physique, intellectuel et moral des populations. Paris, 1878.
Legras, Arthur B., Contributions à l'emploi thérapeutique de l'alcool. Paris, 1865.
Payen, Anselm, Précis théorétique et pratique des substances alimentaires. Paris, 1865.
Raige, Jacques, Delorme, et *Dechambre, A.*, Dictionnaire Encyclopédique des Sciences Médicales.
——, Sur l'alcool, pp. 579–615.
——, Sur l'alcoolisme, pp. 615–719. (Lanuraux.)
——, Les Alcools, pp. 719–724 (Tourdes), tome ii. Paris, 1865.
Wurtz, Adolphe, Dictionnaire de Chimie (tome i. part i. L'alcool, pp. 104–160). Paris, 1865.
Brillaud Laujardière E., De l'Ivresse considérée dans ses conséquences méd. légales. Paris, 1866.
Gariel, Marius, Essai sur l'alcoolisme considéré principalement au point de vue de l'hygiène publique. Montpellier, 1866.
Juliano, Georges, Essai sur l'alcoolisme. (Thèse pour doctorat.) Paris, 1866.
Larousse, Dictionnaire Universelle du xix. Siècle (tome i., article, *Alcool*). Paris, 1866.
Artigues, L'armée, son hygiène morale. Paris, 1867.
Foville, Archives générale. Paris, 1867.
——, La folie des grandeurs. Paris, 1871.
Glandil, F., De la cirrhose alcoolique. Paris, 1867.
Robert, Charles, De l'ignorance. (Conférences populaires à l'asile impérial de Vincennes.) Paris, 1867.
Audhoui, Victor, Pathologie générale de l'empoisonnement par l'alcool. Paris, 1868.
Bidard, R., De l'influence de l'alcool sur la température et le puls, dans la pneumonie. Paris, 1868.
Faure-Favier, P. M., De l'action thérapeutique de l' alcool. Paris, 1868.
Motard, Adolphe, Traité d'Hygiène générale. (Tome i. p. 836, Boissons.) Paris, 1868.
Nicolle, Eugéne, De l'Abus des Alcooliques. Rouen, 1868.
Notta, Recherches statistiques sur la progression croissante de la mortalité en Normandie. *L'Union Médicale* (série 3, tome v. p. 801). Paris, 1868.

Pascal, Charles, De l'alcoolisme et de son influence sur le développement et la marche des maladies. (Thèse pour doctorat.) Montpellier, 1868.
Richard, l'Abbé, Essai sur la Tempérance. Paris, 1868.
Baudrillart, H., Des Habitudes de l'intemperance. Paris, 1869
Bellencontre, Deux ennemies de la santé. Des Boissons alcooliques. De l'abus du tabac. (Conf. Hygiène.) Paris, 1869.
Godfrin, Alfred, De l'alcool, son action physiologique, etc. 1869.
Höfer, Johann C. F., Histoire de la Chimie. Paris, 1869.
Jung, E., Des effects physiologiques et thérapeutiques de l'alcool. Paris, 1869.
Magnan, V., Gazette des hôpitaux, pp. 79, 82, 85, 100, 108. Paris, 1869.
——, Académie des sciences. Avril, 1869.
——, Recueil de médecine vétérinaire. May, 1871.
——, Annales méd. psych., p. 302. Paris, 1874.
——, l'Alcoolisme, des diverses formes du délire alcoolique et de leur traitement. Paris, 1874.
Bergeret, Louis F. E., De l'Abus des boissons alcooliques. Paris, 1870.
Cassaignes, A., Étude sur l'action physiologique et les effects thérapeutiques dé l'alcool. Paris, 1870.
Peronne, Charles, De l'alcoolisme dans ses rapports avec le traumatisme. (Thèse pour doctorat.) Paris, 1870.
Beaufumé, de l'Abus des liqueurs alcooliques comme cause de degénérescence physique et morale des peuples et des moyens d'y remedier. Paris, 1871.
Chauffard, Discussion sur l'alcoolisme. Paris, 1871.
Despine, Prosper, Le Démon Alcool, ses effets désastreux sur le moral, sur l'intelligence, etc. 1871.
Gosselin, Bulletins de l'Académie de Médecine. Paris, 1871.
Hardy, Gazette des hôpitaux, Compte rendu de l'Académie de Médecine. Paris, 1871.
Legrand du Saulle Henri, Le Délire des persécutions. Paris, 1871.
Verneuil, Bulletin de l'Académie de Médecine. 1871.
Bergeron, Rapport sur la repression de l'alcoolisme a l'Académie de Médecine. Paris, 1872.
Burill, Paul, De l'Ivrognerie et des moyens de la combattre. (Thèse pour doctorat.) Paris, 1872.
Marty, Germain, Contributions a l'étude de l'alcoolisme. (Thèse pour doctorat.) Paris, 1872.
Marvaud, A., Étude de physiologie thérapeutique. L'alcool, son action physiologique, etc. Paris, 1872.
——, Les aliments d'épargne alcool et boissons aromatiques. Paris, 1874.
Verneuil, Hardy, Gubler, Gosselin, Béhier, Richet, Chauffard et Geraldis, De la Gravité des Lésions. Traumatiques et des opérations chirurgicales chez les Alcooliques. Paris, 1872.

Arnauld, Jules, De l'alcool considéré comme source de force, etc. 1873.

Bertrand, Edmond, Essai sur la moralité des classes ouvriéres dans leur vie privée. (*Journal de la société de Statistique*, tome xiv. p. 93.) Paris, 1873.

——, Essai sur l'intemperance. Paris, 1875.

Cambon, J. B., Considérations sur l'emploi de l'alcool en thérapeutique médicale. Montpellier, 1873.

Cranney et *Boucault*, Commentaires de la loi sur l'ivresse votée Janv. 1873.

Dagonet, H. De, Alcoolisme au point de vue de l'aliénation mentale. 1873.

——, Traité des maladies mentales. (Boehm's Ziemssen's Hdb. xv. p. 51.)

Gambus, Lucien, De l'Alcoolisme chronique terminé par le paralysie générale. (Thèse pour doctorat.) Paris, 1873.

Lolliet, De l'alcoolisme comme cause de la paralysie générale. (*Gazette des hôpitaux.*) Paris, 1873.

Lunier, L., De l'Origine et de la propagation des sociétés de tempérance. Paris, 1873.

——, De la production et de la consommation des boissons alcooliques en France et de leur influence sur la santé physique et intellectuelle des populations. Paris, 1877.

Petit, Des Conséquences funestes de l'ivrognerie, etc. 1873.

Chagnaud, Anatole, Des causes de l'alcoolisme; étude d'hygiène publique. (Thèse pour doctorat.) Paris, 1874.

Cuzent, Gilbert, Des Boissons enivrantes chez les différentes peuples. 1874.

Faugeron, G., De l'emploi de l'alcool dans le traitement des Suites de couches. Paris, 1874.

Gazin, A., De l'alcool dans les pneumonies adynamiques. Paris, 1874.

Goy, L., De la pneumonie chez les alcooliques. Montpellier, 1874.

Lefort, Joseph, Études sur le moralization et le bien être des classes ouvrières. Paris, 1874.

——, Intempérance et Misère. Paris, 1876.

Picard, Eugéne, Dangers de l'abus des boissons alcooliques. Paris, 1874.

Étude semerologique des inflammations du foi développées sous l'influence de l'abus des boissons alcooliques. *Clin. Méd.* de l'hôtel de Dieu (pp. 35–67). Rouen, 1874.

Falin, De l'action physiologique et thérapeutique de l'alcool. Paris, 1875.

Grancher, Sur la médication tonique par l'alcool. (Thèse pour le concours.) Paris, 1875.

Jouffroy, Médication par l'alcool. (Thèse pour le concours.) Paris, 1875.

Lorrin, Marc, Aperçu général de l'Hérédité et de ses lois. (Thèse pour doctorat.) Paris, 1875.

Marfaing, Ernest, L'Alcoolisme considéré dans ses rapports avec l'aliénation mentale. (Thèse pour doctorat.) Paris, 1875.

Prévost, H., Étude clinique sur le délire alcoolique. Paris, 1875.

Coustan, De l'influence de l'accroisement du nombre des cabarets sur santé publique et la criminalité. Douai, 1876.

Dubois, De l'influence des liquides alcooliques sur l'action des substances toxiques. Le Mans, 1876.

Dujardin, Beaumetz, et *Audigé,* Recherches expérimentales sur les alcools par fermentation. (Présenté à l'Académie de Médecine.) Paris, 1876.

——, Recherches expérimentales sur puissance toxique des alcools. Paris, 1879.

Gautier, A., Sur la colorisation frauduleuse des vins. (*Annales d'Hygiène publique et de Médecine légale.*) Paris, 1876.

——, La Sophistication des vins. Paris, 1877.

Targuet, Documents pour servir à l'histoire de l'ivresse et de l'alcoolisme. Paris, 1876.

Goppelsröder, Sur l'analyse des vins. 1877.

Husson, C., Du vin ses propriétés, sa composition, sa préparation, ses maladies, etc. Paris, 1877.

Picque, Dr. L., Essai de géographie médicale. Contribution à l'étude de l'alcoolisme. (*Annales d'Hygiène,* tome 47, p. 369.) Paris, 1877.

Riant, Aimé, De l'alcool et du tabac. Paris, 1877.

Ritter, E., Des vins colorés par la fuchsine. Paris, 1877.

Baudrimont, Marie V. Ernest, Dictionnaire des altérations et falsifications des substances, alimentaires médicamenteuses et commerciales avec l'indication des moyens de les reconnâitre. Sur l'alcool, pp. 88–106. Du vin, pp. 1209–1289. Paris, 1878.

Garaudeaux, De la phthisie chez les buveurs, et de ses rapports avec la cirrhose du foie. (Thèse pour doctorat.) Paris, 1878.

Homais, M., L'Alcoolisme. Paris, 1878.

Rabuteau, A., Des Alcools et de L'Alcoolisme. Paris, 1878.

Compte-rendu du Congrès International pour l'Étude des Questions Relatives à l'Alcoolisme tenu à Paris, 1878.

Belières, L., Rapports cliniques et anatomo-pathologiques de alcoolisme avec le paralysie générale. Paris, 1879.

Haller, A., Théorie générale des alcools. Paris, 1879.

Metman, M., Étude sur les Législations Européenes relative au débits de Boissons Alcooliques. Paris, 1879.

Congrès International pour l'Étude des Questions Relatives à l'Alcoolisme. (Tenu à Paris du 13 au 16 Août, 1878.) Paris, 1879.

L'Ivrognerie ses effets sur l'individu, la famille, et la Société. Rouen, 1879.

Lassègue, C., Les Troubles visuels de l'alcoolisme. (*Archives Générales de Médecine*, tome cxliv. p. 342.) Paris, 1879.

Chevalier, L., De la Pneumonie chez les alcooliques. (Thèse pour doctorat.) Paris, 1880.

Comptes Rendus du Congrès International de Médecine Mentale tenu à Paris du 5 au 10 Août, 1878. Paris, 1880.

Gendron, E., Alcoolisme Héréditaire. (Thèse pour doctorat.) Paris, 1880.

Dumouly, M., Recherches cliniques et expérimentales sur l'action hypothermique de l'alcool. (Thèse pour doctorat.) Paris, 1880.

Liston, Note sur une nouvelle forme d'alcoolisme latent professionel et sur le moyen de la combattre. (*Annales d'Hygiène publique et de Médecine Légale.*) Paris, 1880.

Millet, J., De l'Influence Etiologique de l'Alcoolisme sur la paralysie générale progressive. (Thèse pour doctorat.) Paris, 1880.

Blanc, Léon Emile, Traitement des Abcès chauds par les injections d'alcool. (Thèse pour doctorat.) Paris, 1881.

Lacaille, A., De la Pseudo-Paralysie générale alcoolique. (Thèse pour doctorat.) Paris, 1881.

Moreaux, Marche de la paralysie générale chez les alcooliques. (Thèse pour doctorat.) Paris, 1881.

Roux, J., Étude sur les Rapports de l'Alcoolisme et de la Phthisie Pulmonaire. (Thèse pour doctorat.) Paris, 1881.

Ardouin, Conférences sur L'Alcoolisme. Paris, 1882.

Baron, A., Le Pauperisme. Paris, 1882.

Billaud, J., De l'Alcool Pur employé comme Topique Résolutif dans les Inflammations aiguës. (Thèse pour doctorat.) Paris, 1882.

Lailler, A., Du Cidre. Paris, 1882.

Sartre, R., Traitement des abcès chauds par l'incision limité avec injections d'Alcool. (Thèse pour doctorat.) Paris, 1882.

Vogelin, M., Contribution a l'Étude du Purpura Alcoolique. (Thèse pour doctorat.) Paris, 1882.

Gal, H., Recherches sur le passage des liqueurs alcooliques a travers des corps poreux. Comptes rendus des séances de l'Académie des Sciences. Paris, Nov. 1882, Jan. 1883.

Henry, L., Sur quelques dérivés phrénoliques. Comptes rendus des séances de l'Académie des Sciences, April. Paris, 1883.

Jaillet, J., Modifications que subit l'alcool, introduit dans l'économie. Paris, 1883.

Menschutkine, N., Sur les déplacements mutuelles des bases dans les sels neutres, les systèmes restant homogènes. Comptes rendus des séances de l'Académie des Sciences. Paris, 1883.

AUSTRIA.

Duchek, A., Ueber das Verhalten des Alkohols im thierischen Organismus. (*Vierteljahrschrift für die praktische Heilkunde.*) Prague, 1833.

Rosenthal, Moses, Tractatus de abusu Alcoholicorum. Vindobonæ, 1839.

Prochazka, J. G., De Morbis potuorum. Pragæ, 1842.

Engel, Joseph, Die Säuferdyskrasie. Zeitschrift d. K. Gesellschaft d. Aerze zu Wien., 1845.

——, Anleitung zur Beurtheilung des Leichenbefundes. Wien., 1846.

Feuchtersleben, Ernst von, Lehrbuch der ärztlichen Seelenkunde. Wien., 1845.

Rokitansky, Carl, Handbuch der pathologischen Anatomie. Wien., 1846.

Artmann, Ferdinand, Die Lehre von den Nahrungsmitteln, ihrer Verfälschung und Conservirung, etc. Prag, 1859.

Schlossar, Speise und trank vergangener Zeiten in Deutschland. Wien., 1877.

Bersch, Josef, Die Entstehung des Weines.

Binz, Carl, Alcohol, Alcoholismus. Wien., 1880.

Ganghofner, Ueber d.Einfluss, d.Alkohols auf den Menschen. Prague, 1880.

BELGIUM.

Canoniero, P. A., De Admirandis vini vertutibus. Antverpiæ, 1627.

Guislain, Joseph, Traité sur les phrénopathies. Bruxelles, 1835.

Buret, Antoine Eugéne, De la misère des classes laborieuses en Angleterre et en France. Bruxelles, 1843.

Compte Rendu du Congrès de bienfaisance de Bruxelles. 1856.

Bouquié-Lefebvre, Des causes et des résultats de l'intémperance. (Received the gold medal, worth 300 fr., offered by Mr. Dutrône at the Frankfort Conf., but he gave the value of it to the poor of Frankfort.) Bruxelles, 1858.

Frère-Orban, Hubert J. W., De l'Abus des Boissons Enivrantes. Renseignements déposés à la Chambre des Représentants. Bruxelles, 1868.

Jansen, Auguste, De l'Influence dans nôtre climat de l'Usage et dé l'Abus des Alcooliques sur la santé de l'ouvrier. (Couronne par la Société de Médecine d'Anvers.) Anvers, 1872.

Jansen, Auguste, De l'usage et de l'abus des alcooliques dans l'armée. Bruxelles, 1876.

——, De l'abus des Alcooliques dans la classe aisée. (Analyse par M. Du Moulin, *Bulletin de la Société Médecine de Gand*, xlv. 464–466.) 1878.

——, De l'usage et de l'abus des boissons et des liqueurs alcooliques. Manuel d'instruction populaire recommandé par l'Académie Royale de Médecine et par le Ministre de la Guerre. Namur, 1880.

Haeck, F., Mémoire sur les cause des effets bienfaisants, et les causes des effets nuisibles des boissons alcooliques. Bruxelles, 1872.

Falin, De l'action physiologique et thérapeutique de l'alcool. Anvers, 1874.

La Société Callier pour la moralisation des Classes laborieuses par l'épargne. Gand, 1874.

Becelaere, Danger de l'abus des boissons alcooliques, etc. Congrès internationale d'hygiène. Bruxelles, 1876.

Desguin, V., De l'abus des Alcooliques, ses causes, ses résultats, ses rémédes. Bruxelles, 1877.

Barella, Hipp., De l'abus des Spiritueux, etc. Bruxelles, 1878.

——, Les Alcools et l'Alcoolisme. Bruxelles, 1880.

Rapport a M. le Ministre de l'Intérieur sur la question de l'Alcoolisme. (*Bull. de l'Académie Royale de Médecine de Belgique*, tome xiii. p. 1083.) Bruxelles, 1879.

Congrés Internationale pour l'Étude des Questions Relatives a l'Alcoolisme. Bruxelles, 1880.

Delannois, Les Malades des buveurs. Bruxelles, 1880.

Bulletin de l'Association Belge contre l'Abus des boissons Alcooliques. Bruxelles, 1882 to 1884.

HOLLAND.

Malinkrot, Dissertatio ebrietatis pathologia. Traj. ad. Rh. 1723.

Heufel, Von, Dissertatio de Vindemia et torcularibus veterum Hebræorum. Ultrajecti, 1755.

Schurmann, De effectibus spirituosorum in corpus humanum. Harderovii, 1791.

Sinclair, J., Handbuch der Gesundheit, etc. Amsterdam, 1808.

Fuhri, A. D., De potuum Spirituosorum affectibus in corpus humanum. Lugduni Batavorum, 1849.

Schroeder vand der Kalk, J. L. C., Voorlezing over den inloed van sterken drank op het ligchaam. Utrecht, 1850.

Huydecoper, De l'abolition des boissons fortes. 1867.

Fokker, A. P., Over den inloed van alcohol op de temperatuur en de

meunuiitscheiding. *Nederlandsch Tijdschrift voor Geneeskunde*, etc. (1 pp. 125–136.) Amsterdam, 1871.
Florent Van der Ven, Het misbruik van sterke dranken. Almanak van de Nederlandsche vereeniging tot afschaffing van sterken drank. Anvers, 1873.
De Volksvriend, journal hebdomadaire publié par l'Association néerlandaise contre l'usage des boissons fortes.

ITALY.

Raimundus, Lullius, De secretis Naturæ seu quinta essentia. (Said to have written some sixty treatises on chemical subjects.) Venetiis, 1486.
Beroaldus, Philippus, Declamatis Ebriosi, Scortatoris, Aleatoris de Vitiositate disceptantium. Bononiæ, 1499.
Arnaldus, de Villa Nova, De Vinis. Venetiis, 1506.
Fumanelli, A., Commentarius de vino et facultatibus. Venetiis, 1536.
Praefectus, Jacobus, Symposium de Vinis. Romæ, 1536.
——, De Diversorum vini generum natura liber. Venetiis, 1559.
Cornaro, Lewis, De Vitæ Sobriæ Commodis. Padua, 1558.
Cagnati, Marsilio, Variarum observationum libri quatuor. Romæ, 1587.
Bacci, Andrea, De naturali vinorum historia, de vinis Italiæ, et de conviviis antiquorum, libri septem. Romæ, 1596.
Crivellati, T., Trattato dell' nio e dei modi di dare il vino nelli malattie acute. Roma, 1600.
Saldi, J. F., De natura aquæ vitæ. Genuæ (Genoa), 1620.
Tirelli, M., De historia vini. Venetiis, 1630.
Caldera, Gasper De Heredia, Tribunal, medicum, magicum, et politicum. Lugduni Batavorum, 1658.
Carlucci, L., Dissertazioni chymicofisiche sopra l'analise del vino. Napoli (Naples), 1756.
Fontana, Felice, Richerche fisiche sopra il veleno della Vipera. Lucca, 1767.
Dandolo, Conte, Enologia: ovvero l'arte di fare, conservare, e far viaggiare i vini. Milano, 1820.
Rosellini, N. F. I. B., I Monumenti dell' Egitto e della Nubia. Pisa. Part I., vols. i., iv., 1832–1841. Part II., vols. i., iii., 1832–1836. Part III., vol. i., 1844.
Mantegazza, Paolo, Quadri della Natura Umana Feste ed ebbrezze. Milano, 1871.
Tagliabue, Antonio, Il Suicido. Milano, 1871.
Boragine, T., Sull' azione fisiologica dell' alcool nell organismo

dell uomo. Sperimentale, etc. (xxxii. 149–165.) Firenze, 1873.

Ronchi, J. et Salvioli G., Studio critico-sperimentale intorno ad alcune particolaritæ del-l'azione fisiologica dell' alcool. Modena, 1875.

Galli, Vitaliano, Absintismo. Memoria. . . . Con Alcuni appunti del Professore F. Coletti e risposta dell' autore. Padova, 1877.

Venuti, Filippo, Dissertazione de' coli vinarij degli antichi.

Terzi, Ernesto, Della ubbriachezza in Italia et dei mezzi per rimediarvi. Milan, 1878.

RUSSIA.

Pallas, Peter Simon, Reise durch verschiedene. Provinzen des Ruszischen Reichs, Bd. i. p. 315, etc., Coumiss. St. Petersburg, 1771–1776.

Salvatori, Comment. pathol. et therap. de ebriositate. (Comment. Soc. Phys.) Mosquensis, 1821.

Lipinski, C., De actione potionum spirituosorum in corpus humanum. Cracoviæ, 1839.

Strauch, E., Demonstratione spiritus vini in corpus ingesti. Dorpat, 1852.

Masing, R., De mutationibus spiritus vini in corpus ingesti. Dorpat, 1854.

Hermann, Ueber den Missbrauch geistiger, Getränke in Russlande Vortrag im Verein Deutscher Aertze in St. Petersburg, Nov. 13, 1867. St. Petersburgher medicinische. Zeitschrift, xiii., B. s., 65. St. Petersburg, 1867.

Schmiedeberg, Ueber die wirkung des alcohols und chloroforms auf den stoffwechsel. *St. Petersburg. Med. Ztschr.* (xiv. pp. 93–97.) St. Petersburgh. 1868.

Zimmerberg, H., Untersuchungen über den Einfluss des Alkohols auf die Thätigkeit des Herzens. Inaugural dissertation. Dorpat, 1869.

Lisenivich, V., Gigienicheshoe znachenie spirtnikh napitkov. (Hygienic importance of alcoholic drinks). *Vrachebniya vaidomosti* (No. 76, 1). St. Petersburgh, 1876.

Phiziologicheskoe i terapevticheskoe daiestire alcogolya. (Physiological and therapeutical action of alcohol.) *Vrach. vaidom* (1 No. 1–3). St. Petersburgh, 1876.

Granfelt, A. A., Nykyajan Raittiusliike. (The Temperance Movement of Our Time.) Helsingfors, 1883.

SWEDEN.

Linne, Carl V., Anmärkningar om Bränvin. Stockholm, 1748.
——, Dissertatio academica inebriantia. Respond. O. R. Alander, Upsaliæ, 1762.
Hall, Stephen, Förmaning till Bränvins-supare. Stockholm, 1754.
Wallerius, J. G., Dissertatio de prima vinorum origine causali. Holmiæ (Stockholm), 1760.
Bergius, Petrus, Dissertatio in qua spiritus frumenti proponitur. Upsaliæ, 1764.
Westerdahl, Fr., Bränvinets öde i Sverge. 1765.
Neikter, J. F., De Vini usu fœminis Romæ interdicto. Upsaliæ, 1789.
Erikson, G., Om Bränvinet och dess Missbruk. Norrköping, 1831.
——, Om Bränvinets inflytande på meniskokroppen. Stockholm, 1831.
——, Om Bränvinets Nytta och Skada. Mariestad, 1838.
——, Svenska Nykterhets-Sällskapets Arsberättelse. 1837–47.
Wieselgren, Pehr, Hvad skall man säga om detta Nykterhetsväsende i fall man annars tror Guds ord? (with seven supplements published later). Lund., 1837.
——, Historik öfver Svenska Bränvinslagstiftningen under 200 år. Lund., 1840.
——, Om Nykterhetslären i den Heliga Skrift. Göteborg, 1865.
Ekman, O. Chr., Några Ord om Bränvinets Bruk och Missbruk. Calmar, 1839.
Ekenstam, Carl, Frågor och svar rörande starka dryckers Missbruk. Stockholm, 1842.
——, Svenska folkets utsigt till räddning ur dess största bekymmer. Stockholm, 1868.
Huss, Magnus, Om Bränvinets förmåga att framkalla sjukdomar vare sig det njutes måttligt eller i öfverflöd. Stockholm, 1843.
——, Alcoholismus Chronicus. Stockholm, 1849 (vol. li., 1851).
——, Om Bränvinsbegäret och Bränvins-superiet i Sverige. Stockholm, 1853.
——, Om Dryckenskapen och dess följder. Stockholm, 1883.
Ahnfelt, P. G., Tal hållet vid Lund's Nykterhetssällskaps sammanträde. Lund., 1844.
Janson, Jon, Tal hållet vid Svenska Nykterhets-Sällskapets andra Filial-Förenings Års-Sammankomst. Lund., 1844.
——, Om Nykterhets foreningar, etc. Stockholm, 1847.
Nathorst, J. Th., Landtbruk utan bränvinsbränning. Stockholm, 1854.
Tham, P. V. S., Om alkohols inverkan på kroppstemperaturen.

Upsala Läkare forenings Förhandlingar (v. pp. 635–640. Upsala, 1869–70).

Carlheim-Gyllenskjöld, O., A memorandum concerning the use of intoxicating liquors in Sweden. Stockholm, 1872.

Berg, C. O., Nykterhetsföredrag. Stockholm, 1875–85.

——, Allmänna Svenska Nykterhets-motet i. Stockholm. Stockholm, 1876.

Stenberg, S., Om det inflytande som bränvinets föroreningar hafva på dess fysiologiska verkningar. *Nord. Med. Ark.* (x. pp. 1–41.) Stockholm, 1878.

Westfelt, Gerard, Om Dryckenskapens Tillstånd och Fysiska följder i Sverige under åren 1861–77 enligt statistikens vitnesbörd. Stockholm, 1880.

Wieselgren, Sigfrid, Om Svenska Bränvinslagstiftningen (1855–77). Stockholm, 1880.

——, Göteborgssystemet dess uppkomst syften och verkningar. Göteborg, 1881.

——, Till frågan om arbetarnes ekonomiska frigörelse. Stockholm, 1883.

——, Från Striderna om Svenska bränvinslagstiftningen (1835–85). Göteborg, 1885.

Hülphers, M. W., Om bruket af destillerade spritdrycker från militar hygienisk synpunkt. Stockholm, 1881.

Bishop Landgrens Bannlysningsbulla mot Goodtemplarorden och absolutismen samt svar Därpå. Stockholm, 1885.

Goodtemplarorden och Samhället. Stockholm, 1886.

DENMARK.

Lind, J. G., De delirio tremento sic dicto observationum series cum epicrisi de morbi indole ac natura. Copenhagen, 1822.

Eltzholtz, Carl F., Totalafholds sagens Berettigelse i Guds Ords Lys. Copenhagen (Kjobenhavn), 1866.

SWITZERLAND.

Savonarola, M., De Arte conficiendi aquam vitæ simplicem et compositam deque ejus vi admirabili ad conservandam sanitatem et corporis humani ægritudines curandas. Basiliæ, 1597.

Zimmermann, Johann G. von, Der Erfahrung in der Arzneykunst. Zürich, 1764.

Pictor, Sermon medico practicæ (vol. ii. Haller Bibliotheca). Bernæ, 1776.

Lehmann, Ueber die Folgen des Missbrauchs der geistigen Getränke. Bern, 1837.
Herzog, Xaver, Neueste Dränirmethode, oder probates mittel gegen die Trunkenheit. Luzern, 1863.
Hitzig, Eduard, Ziele und Zwecke der Psychiatrie. Zürich, 1876.
Stierlin, R., Ueber Weinfalschung und Färbung. Bern, 1877.
——, Das Bier, seine Verfälschungen und die Mittel, solche nachzuweisen. Bern, 1878.
Sell, E., Ueber Bier und seine Verfälschungen. Bern, 1878.

SPAIN.

Salazar, M., El alcohol su accion fisiologica y tirapéutica. *An. de cien med.* (1. pp. 153–159.) Madrid, 1876.

MEXICO.

Moreno, J., E Apuntes sobre el empleo therepéutico del Alcohol. México, 1871.

PERU.

Giraldez—Avellaneda M., El alcohol en curacion de las heridas. Lima, 1872.

INDEX OF AUTHORITIES.

A

Adamson, Rev. Dr., 346, 393
Albany, Duke of, 331, 417, 432
Albucassis, 30
Alden, Henry M., 13
Alliance News, 154 *note*, 239 *note*, 256, 341, 354 *note*, 355, 371, Appendix 647
Amyot, 174
Andersen, 30
Anstie, Dr., 107, 120, 359
Aristotle, 31, 34
Armstrong, Sir William, 372
Arnot, Hon. David, 351 *note*
Asiatic Journal, 27 *note*
Athenæus, 17
Avicenna, 30
Audigé, Dr., 96

B

Bacon, Lord, 174, 226
Baer, Dr., 28, 33, 55, 67, 82, 101, 123, 176, 280, 281, 321, 332, 333
Baker, W. M., 60 *note*
Balfour, Mr., 442
——, Right Hon., 356 *note*
Balzac, Honoré de, 226
Barry, Rev. Edward, 174
Bartley, Mr., 400
Basset, 38
Bauer, Professor J., 89
Baxter, Dr. J., 316
Bayly, Mrs. Mary, 252, 380
——, Captain George, 380
Beaumont, Dr. Thomas, 204
——, Dr. W., 74
Béchamp, 43
Becquerel, Dr., 64
Beddoes, Dr., 123, 183
Beecher, Henry W., 230
Benson, Archbishop, 420
——, Bishop, 310
Bergenroth, 308
Bergeron, Dr., 54
Bevan, Llewellyn D., 370
Bevington, Rev. A. C., 452
Billing, Dr. Archibald, 103, 204
Binz, Professor, 96
Blanqui, 408
Bock, Dr., 157 *note*
Böcker, Dr., 82, 83
Baker, Dr., 83
Bolas, 42
Bouchardat, Dr., 90
Bourgeois, Dr., 172
Bourne, Stephen, 235
Boussingault, 41
Bowly, Samuel, 320
Bowman, Dr., 72, 201
Boyle, R., 35
Branthwaite, Dr. H., 225
Bridgett, Rev. Father, 25 *note*
Brinton, Dr., 53
British Medical Journal, 186, 207
Brockhaus' *Conversation-Lexicon*, 38 *note*

Brooke, Rev. Stopford A., 122, 323
Browne, Dr. J. Crichton, 113
Brunton, Dr. T. Lauder, 79, 92, 103, 104
Buffon, 230
Bullein, Dr. William, 309
Burdett-Coutts, Baroness, 387 *note*
Burggraeve, Dr. A., 207
Burne, Peter, 425
Burns, Rev. Dr. Dawson, 234, 235, 240, 269 *note*, 311
——, Mrs. Dawson, 360
Burton, Walter, 49, 52
Buxton, E. N., 399

C

Cæsar, Julius, 23
Caine, W. S., M.P., 253, 455
Camden, William, 309
Camp, Maxime du, 280
Campbell, T., 295
Cantlie, Dr. James, 99
Carlisle, Bishop of, 422
——, Lord, 387
——, Sir A., 70, 218
Carpenter, Dr. W. B., 63, 84 *note*, 318
Cash, Thomas, 268
Cayley, Dr. William, 205
Cetewayo, 354
Chamberlain, Right Hon. Joseph, M.P., 278, 402
Chambers, Dr. T. K., 103
Channing, Rev. W. E., 166, 298 395, 414, 428
Chapin, Rev. Dr., 437
Cheyne, Dr. George, 182, 328 *note*, 387
——, Dr. John, 160, 183, 312
Christian, The, 368 *note*
Christison, Professor, 106, 129
Church of England Temperance Chronicle, 375
Clark, Sir Andrew, 57, 121
Classical Journal, 17 *note*
Clegg, Alderman, 452
Clouston, Dr. T. S., 272
Cobden, Richard, 414
Cole, Mr., 54
Coleridge, Lord Chief Justice, 232
Collins, Sir William, 238
Colquhoun, Mr., 343 *note*
Connaught, Duke of, 432 *note*
Copland, Dr., 316
Corbet, W. J., M.P., 272
Cowen, Joseph, M.P., 414
Crane, Rev. Dr., 291
Crosby, Rev. Dr. Howard, 278, 326

D

Daily Chronicle, 381
Daily News, 52, 275, 355, 369, 405
Daily Telegraph, 51, 262, 296 *note*, 346
Darwin, Dr. Erasmus, 131, 174, 183
Davenport, W. Bromley, M.P., 132
Davis, Dr. 95
Davies, Dr. Pritchard, 270
De Foe, Daniel, 310
Delavan, E. C., 338 *note*, 425
Deacon, J. F., 341
Denman, James, 50
Denman, Mr. Justice, 232
Derby, Lord, 242
De Saussure, 41
Dionysius of Halicarnassus, 21
Disney, John, 229 *note*
Dixon, Hepworth, 442
Dogiel, Professor, 72, 82
Donnat, Léon, 393
Dowse, Baron, 232
Draco, 20
Drysdale, Dr. C. R., 88, 131, 269
Dudley, Col., 46 *note*
Du Halde, 28 *note*
Dujardin-Beaumetz, Dr., 96
Dumarquay, Dr., 95
Dumas, 37
Dumeril, Dr., 95
Dunlop, John, 185
Duroy, Dr., 89, 93

E

Eccles, A. E., 441
Echo, 42 *note*, 266, 339, 343 *note*, 383 *note*
Edinburgh Review, 50, 53
Edmunds, Dr. James, 77 *note*, 78,

86, 109, 128 *note*, 202, 216, 222, 225, 267
Edwards, H. E., 418 *note*
Ellison, Canon, 341, 368, 419
Evening Standard, 277, 412
Exeter, Bishop of, 393, 426

F

Fabius Pictor, 21
Fabroni, Adam, 8 *note*
Farrar, Canon F. W., 254, 344
Farre, Dr. J. R., 58
Figg, Dr. E. G., 91, 92, 94, 107, 121, 173, 175, 219, 283
Finkelburg, Dr., 282
Fiske, Professor John, 111, 120
Fitzgerald, Mr. Justice, 231
Flint, Dr. Austin, 63, 68, 85, 88
Flourens, Professor P., 58
Flügge, Professor, 40
Forbes, Sir John, 103
Fournier, Alfred, 47
Frère-Orban, H. J. W., 275, 393
Friend, Dr. J., 30
Friend, The, 352 *note*
Fuller, 338

G

Ganghofner, Dr. F., 269
Garnett, Dr., 317
Garrod, Dr. A. Baring, 53, 131
Geber, 29
Gendron, Dr. E., 176, 280 *note*
George, Henry, 409
Gilbert, T., 444
Gilchrist, Dr., 271
Gladstone, Right Hon. W. E., 231, 345, 400, 452
Globe, The, 370
Glynn, Rev. Carr, 456
Gordon, Dr., 317
Gould, Rev. Baring, 7, 9
Grimsby News, 412
Grindrod, Dr. Ralph Barnes, 23, 218, 316, 321, 433
Grove, Mr. Justice, 231
Gull, Sir William, 226, 266, 318
Guthrie, Rev. Dr. J., 32 *note*
Gutzeit, 43

H

Haggenmacher, Otto, 15
Hale, Sir Matthew, 232
Hales, Dr., 83 *note*
Hall, Vice-Admiral Sir W. King, 297 *note*
Hamburger J., 10
Hamilton, Lord Claud. 438
Hammond, Dr. W. A., 79
Hancock, Rev. Dr., 204
Hare, Dr. Charles, 197, 374
Hargreaves, Dr., 275
Harnack, Dr., 199 *note*
Harrington, Sir John, 310
Hart, Ernest, 186
Hawkins, Mr. Justice, 233
Hawksley, Dr. Thomas, 375
Headland, Dr., 103
Heath, J. P., 350 *note*
Heaton, Mr., 271, 456 *note*
Hermann, Dr. L., 57
Hermes Trismegistus, 31
Herodotus, 17, 58
Hewitt, Rev. Dr., 321
Hibberd, Shirley, 303
Higginbottom, Mr., 183, 195
Hinton, Dr. James, 92
Hoefer, 30
Holinshed, R., 182
Holland, Dr. J. G., 437, 444
Howard, Bronson, 447
Howie, Dr., 115
Hoyle, William, 234–238, 246–252, 269, 271
Huddleston, Baron, 232
Hufeland, Dr., 158
Humboldt, F. H. A. von, 27
Huss, Dr. Magnus, 29, 33, 128, 141

I

Jaccoud, Professor Sigismund, 176
Jackson, Dr. Robert, 204
James, Dr., 183
Jeffreys, Archdeacon, 426
——, Dr. Julius, 184
Jenkins, Edward, M.P., 313
Johnson, Walter, 32

Johnson, Dr. James, 317
Jones, Edward, 243
Juvenal, 13

K

Kerr, Dr. Norman, 130, 177, 182, 184, 185, 265, 267, 372, 375
Keshub Chunder Sen, 354
King, Dr. T., 103
Kirk, Dr. James, 93
Kirk, Rev. John, 245
Kirkegaard, Sören, 299
Klein, Dr. L. A., 67
Koch, Dr. Albin, 64
Kölliker, 40
Kopp, H., 32
Kotzebue, 7
Krafft-Ebing, Professor, 140, 144, 149, 178
Kuyper, Herr, 94

L

Lactantius, 13
L'Allemand, Dr., 89, 93
Lamb, Charles, 159
Lanceraux, Dr. E., 175, 281
Lancet, 55, 76, 190, 266, 313, 361, 371, 390
Latour, Cagniard, 40
Lavoisier, Antoine Laurent, 35
Lawson, Sir Wilfrid, 241, 345
Le Clerc, M., 30
Lecoint, Dr., 95
Lees, Dr. F. R., 8 *note*, 73, 322 *note*, 344
Leigh, Canon, 362
Leo Africanus, 29
Lewis, David, 238, 267, 344, 394, 442
Libavius, 33 *note*
Licensed Victualler's Simple Guide, 27 *note*, 53
Liebig, Justus von, 40, 88, 97, 123
Lightfoot, Dr., 7
Livesey, Joseph, 331, 411
Livy, 21
Lockhart Robertson, Dr. C., 269
Lorin, Dr. Marc, 172
Louisville Medical News, 42 *note*, 378 *note*
Lullus, Raimundus, 30

M

Macrorie, Dr., 317
Mann, Dr., 279
Manning, Cardinal, 258, 340, 396
Manu, 6
Marty, Dr. Germain, 231
Mason, Dr. Lewis D., 145–148, 149, 178, 279
Maudsley, Dr., 148, 176
Maury, Alfred, 12
M'Cabe, Cardinal, 168 *note*
McCulloch, Dr., 53
McGee, Walter, 48
McKay, Mr., 353 *note*
McMurtry, Dr. A. H. H., 187
Medical Temperance Journal, 24, 186
Medical Times, 157, 207
Merriman, Rev. Mr., 112
Midrasch Rabboth, 10
Milton, John, 7
Mohl, Von, 36
Moister, Rev. W., 436
Morel, Dr. B. A., 174, 392
Morewood, Mr., 7, 8, 12, 19, 25 *note*, 27 *note*, 357
Morgenstern, Mrs. Lina, 384
Morley, Mr. S., M.P., 349, 449, 451
Mossop, Dr., 112
Mount Temple, Lord, 449
Mulhall, Mr., 271
Müller, Professor, 3, 36
Mundella, Rt. Hon. Mr., M.P., 399
Munroe, Dr. H., 87 *note*, 192
Müntz, 41
Murchison, Dr., 129, 130
Myers, Dr. A. T., 206

N

Nägeli, 40
Napier, Sir Charles, 340
Nasse, Dr., 95
National Standard, 339
National Temperance Advocate, 277, 342, 397
Newcastle Chronicle, 417
New York Herald, 278
New York Medical Record, 389
Nicol, Dr., 112

Nicolls, Dr. S., 208
Noble, John, 445

O

Orfila, Dr., 54
O'Shaughnessy, M., Q.C., 231
Ossington, Viscountess, 451
Owen, Sir P. C., 349 *note*

P

Paget, Sir James, 87
Pall Mall Gazette, 152, 178 *note*, 190, 278, 306 *note*, 347 *note*, 384, 388, 394, 397, 442
Parkes, Dr., 47, 114, 124, 186, 197 *note*, 241, 379 *note*
Parsons, Rev. B., 184 *note*, 185, 265, 425, 433
Pasteur, 40
Paul, C. Kegan, 320, 325
"Pedro Verdad," 48
Peek, Francis, 407
Peligot, 37
Percy, Dr. John, 94
Perrin, Dr. 89, 93
Pettenkofer, 45
Phillips, Wendell, 326
Pitman, Judge, 344
Plancy, Colin de, 10
Playfair, Dr. Lyon, 78
Pliny, 21
Plöhn, Dr., 392
Powell, Mr., 276
Prideaux, 23
Priestley, 35
Prout, Dr., 95
Puckler, Prince, 433

R

Rae, Robert, 189, 429
Reade, A. A., 122
——, Charles, 416
Redding, Cyrus, 48
Reid, Dr. J. C., 225
Rhazes, 30
Riant, Dr., 47
Richardson, Dr. B. W., 132
——, J. G., 440
Ridge, Dr. J. J., 115, 120
Rig-Vedas, 3–5
Ritchie, Dr. J. J., 195
Robinson, W. B., R.N., 268
Rochester, Bishop of, 337 *note*
Rodier, Dr., 64
Roebuck, J. A., 416 *note*
Romanes, Professor, J. J., 303
Rösch, Dr. C., 174, 218
Roth, Professor von, 3
Rothschild, Lady de, 451
Rumford, Count, 383
Russell, Lord John, 387
——, T. W., 438
Rutherford, 35

S

St. Matthew, 8
Salisbury, Lord, 401
Samuelson, Mr., 25 *note*
Sanderson, Dr., 241
Sandras, Dr., 90
Sanger, 274
Saturday Review, 358
Saunders, Charles, 259
Savory, W. S., 101 *note*
Scheele, 35
Schlegel, 269
Scholtz, Dr., 397
Schrick, Dr. M., 182
Schulz, Dr. C. H., 81
Schwann, 36, 40
Scientific American, 140
Sebright, John, 302
Seneca, 16, 22
Sewall, Dr., 317
Shaftesbury, Earl, 270, 387, 404
Shaw, Mr., 49
Shepherd, Dr. Edgar, 269
Sherlock, Frederick, 309
Sims, George R., 253, 254, 363–367
Smith, Dr. Edward, 96, 222
——, Rev. James, 169, 324, 426 *note*, 434
——, L. O., 384, 385, 386, 405 *note*
——, Dr. S. C., 203
Solon, 20
Son of Temperance, 378 *note*
Spectator, The, 359
Spencer, Herbert, 302
Spicer, W. J., 446

Spurgeon, Rev. C. H., 297
Startin, James, 130
Stawell, Sir W. F., 452 *note*
Stephenson, George, 444
Stuart, Rev. Moses, 425
Strabo, 13
Strutt, Joseph, 428
Sturge, Joseph, 456 *note*
Sturges, Rev. S., 450 *note*

T

Tabari, 11
Talmud, 7, 9
Taylor, 37
Temperance League Annual, 354
Temperance Record, 314 *note*, 362, 273 *note*, 381, 414, 423, 446
Temperance Review, 217
Temple, Sir William, 130
"Theoricus," 182
Thompson, Sir Henry, 229, 317
——, Dr. Symes, 201
——, H. A., 275
Thomson, Dr., 31
Thudichum, Dr., 48
Times, The, 50, 190, 199, 231, 345, 346
Todd, Dr., 72, 201
Toronto Globe, 445
Trotter, Dr. Thomas, 106, 183, 217
Tryon, Thomas, 69 *note*, 295, 309, 386
Tupper, Sir Charles, 373

U

Unkey, Rev. A. J., 352 *note*

V

Victoria, Queen, 430
Villa-Novus, Arnoldus, 30, 31
Vizetelly, Mr., 49, 51, 55

W

Wakley, Coroner, 259
Wales, Prince of, 431
Walter, Mr., M.P., 399 *note*
Wells, Bishop of, 451
——, Sir Spencer, 373
Westminster, Duke of, 451
Wetherbee, 54
Weymouth and Portland Guardian 413
Whitaker, Dr., 7
Wilberforce, Canon Basil, 423, 42
Wilkins, Dr. E. T., 279
Wilson, Dr. James, 390
Wine Guide, 54
Wollowicz, Dr., 124
Wolseley, Lord, 339
Wood, Major-General Sir Evelyn 340
Wookey, A. J., 352 *note*
Wünsche, Dr. Auguste, 11
Wüstenfeld, 30

Y

York, Lord Mayor of, 429
Young, Dr. Edward, 275

Z

Zschokke, 337

INDEX.

A

Absinthe, 45

Abstainers and drinkers, relative longevity of, 268

Abstinence, importance of national conviction on, 307

—— pledge, worth and effectiveness of, 326

Acute alcoholism, 128

Adepts, the, 31

Adulterations, liquor, 46–56; aloes in beer, 55; bitter almond in, 46; buckbean in beer, 55; cocculus indicus in beer, 55; cocculus indicus in, 47; colchicum used in, 47; colocynth in, 47; Colonel Dudley on, 46 *note;* concoctions of alum in beer for frothings, 55; copper in, 47; copperas in beer for frothings, 55; essentia bina in, 47; ferrous sulphate in, 47; gentian in beer, 55; molasses used in beer for frothings, 55; oil of clove in, 46; oil of vitriol to give age to beer, 56; phosphoric acid the hop aroma in beer, 55; picric acid in beer, 55; port wine, 48; quassia in beer, 55; Rhine wines, 48; salt in beer, 55; sherry, 49; sherry, *Times* newspaper on, 50; stramonium in, 46; strichnia in, 46; sugar of lead in, 46; sulphate of iron used to give a bitter taste, 56; sulphuric acid in, 46; sweetwort used in beer for frothings, 55; tobacco in, 47; universality of, 46; water in beer, 55; wine, proposed treaty between England and Spain, *Daily News* on, 52

Africa, drinking in, 353 *note*

Albucassis claimed to have discovered spirit distillation, 30

Alchemists' belief in alcohol, reasons for, 31

Alcohol, a chief agent in shortening life, 59; action of, on nerves, 102; a food, 66, 67; Dr. Hammond on, as a food, 79; reasons for belief that, is a food, 67; amyl, discovery of, 37; a narcotic poison, 106; as a cause of crime, 152; as a cause of prostitution, 274; as a medicine, 181; as a medicine, *British Medical Journal* on, 186; as a medicine, Dr. Hare on decline in use of, 197; as a medicine, effects of use of, on mothers and offspring, 217; as a medicine, former and present opinions of, 198; as an antiseptic and anti-pyretic, 202; as an anti-spasmodic, 202; as a narcotic, 201; as a stimulant, 200; a subject for chemical investigation, 37; attitude of physicians on the subject of the use of, 65; believed to be a great agent for producing happi-

ness, 289; body and mind poisoning, 306; Bright's disease and, 129; conditions qualifying length, extent, and character of alcoholic paralysis, 120; Prof. Fiske on incipient alcoholic paralysis, 111; demands made by, upon the water of the system, 85; derivations of the word, 32; diseases caused by, 127–151; Dr. Farre's opinion on life being shortened by, 58; Dr. F. R. Lees on the effects of, on digestion, 73; Dr. Richardson's summary of diseases springing from, 132; during the campaign in 1812 in Russia, 96; effect on nervous system, 98; effect on temperature of the body, 95; effect on the will, 160; effects of, as a mental stimulant, 121; effects on blood, 76; effects on the eye, 112; effects on the physical organs and functions, 57–126; effects on stomach, 73; epilepsy from, 138; ethyl, discovery of, 37; evils of, during lactation, 218–224; during pregnancy, 219; first action of, made direct on the brain, 101; from smoke, 42 *note;* general conclusions as to the narcotizing effects of, 121; general summary of the physiological results of, 125; heredity, or the curse on descendants by, 171–180; in bread, 42; influence of, on the blood, 81; inimical to life, 70; in living organisms, plants, and animals, 43; in the drawing-room, 358-367; in water, air, and earth, 41; meaning of alcoholic preservation of tissue, 80; mental phenomena due to, 141–151; methyl, discovery of, 37; mischief caused by, to blood-vessels, 86;

Moderation in use of, 312; *a greater virtue than abstinence?* 324; among the French, 322; definitions of, 313; effects upon temper and judgment, 321; entirely optional in our day, 312; no fixed standard possible, 312; practical worthlessness of the plea of, 314; preparatory stage of drunkenness, 316; publicans on, 313; various opinions on, 316–321;

Natural sources of, 39; nerve paralyzing effects of, 114; nervous diseases from, 138; no right to be called a stimulant, 119; opinion of "Theoricus" on, 181; opinions of the judges on, and crime, 231; opinions on destructive effects of, on society, 230; parallel effects of, on the nervous and muscular tissues, 100; paralysis from, 138; paralyzing effect of, on nerves, 105; physical effects of, in small doses, 115–120; powerful agent in restricting man to the life of the senses, 290; power of, over mankind, 293; presence of, in brain, 91, 93, 94; presence of, in breath, 91, 92; present in skin-evaporations, 92, 93; principal therapeutic uses of, 199; produces degeneration of blood, 82; prolific source of chronic indigestion, 73; reasons for alchemists' belief in, 31; reduces the capacity for work, 123; retards digestion, 71; sensory disturbance from, 133; social results caused by, 226–282; specious reasonings concerning the use of, 305–330; spread of, 33; summary effects of, on digestion, 75; tendency of, to decompose into elements, 44; theories as to what becomes of it after entering blood, 88, 89; theories regarding the effects of, on the nerves producing the drink-craving, 120; three medical declarations concerning, 184–186; origin of third medical declaration, 189; traceable in urine, 92, 93; tried by the tests

of food, 68; twofold hurtful influence on nutrition, 71; twofold narcotizing action of, on brain and nerves, 109; use of, during siege of Paris, 67; use of, in early times, 284; various names for, 32; women and, 358–367. *See also* Alcoholism *and* Drink
Alcoholic criminal activity, true field of direct, 157
—— criminality, examples of unintentional, 156
—— drinking, physiological and mental results of, general summary, 157
—— drinks, food elements in, 76; various, 45
—— dyspepsia, 133
—— epileptiform mania, Dr. Mason on, 149
—— fermentation, lethal nature of, 41; real nature of, first discovered, 40
—— hallucinations, crimes committed under, Prof. Krafft-Ebing on, 149
—— infanticide, 266
—— insanity, 269, 279; Dr. Mason on, 145, 178; in Prussia, 281; in Russia, 282
—— mania, chronic, 149; its symptoms, 150
—— melancholia, chronic, 150; its painful delusions, 150
—— phthisis, 135
—— prescription, warning against, 225
—— prescriptions and their preparations, 199
—— treatment of typhoid fever, mortality from, 206
—— tremor, 140
Alcoholism, Dr. Huss the originator of the term, 128; gradual weakening and final destruction of character by, 163; general moral effects of, 168; one of the greatest causes of the depopulation and degeneration of nations, 176; origin and causes of, 283–304; transmitted to descendants under various forms, 177; analogy of acute, with insanity, Prof. Krafft-Ebing on, 144; divisions of acute, 145; Dr. Huss on acute, 141
Alcohols, groups and varieties of, 37, 38; sources of, found in drinks, 45; various uses for, 44
Ale, child mortality from use of during lactation, 225
Al-Mokanna's death, 29
Almond, bitter, in liquor adulteration, 46
Aloes in beer, 55
Alum, concoctions of, used in beer for frothings, 55
American schools, temperance education in, 397
Amru, barbarities of, 25
Amusements, a check on drink and crime, 417; duty of the rich to provide innocent, for the poor, 417; reforming power and need of innocent, 414
Amyl-alcohol, discovery of, 37
Ancients, distillation unknown to the (excepting possibly the Chinese), 2; drinking among the, 1–24
Ancient wine traditions, 6–12
Anglo-Saxon power conquered by its intemperance, 337
Anne, Queen, free trade in liquors during reign of, 310
Antiseptics, comparative worthlessness of, 203
Antwerp, water ordinance in, 387
Arabia, spirit distillation in, 29
Araca asa, a brandy distilled from koumiss, 45
Army, Belgian, drinking in the, 338 *note*
——, English, importance of sobriety in, 337; Lord Wolseley on drink in, 339; Major-Gen. Sir Evelyn Wood's experiences, 340
Arrack, a brandy obtained from rice, 45
Artisans', Labourers', and General Dwelling Company, 442

Association, the force of, 294
Assyria and drink, 15
Athens and drink, 20
Atmosphere always charged with ferments, 40
Australian schools, temperance education in, 397

B

Bacteria, or micro-organisms, 39 *note*
Bacchus, Noah thought to be original, 11; worship, 11–15; similarity between Greek and Egyptian worship, 12
Banks, Lord Derby on savings, 242; savings, school system in Sweden, 398; suggestions for establishment of sober working men's, 405
Barley for malting purposes, refusal to sell, 456
Barmaids a cause of intemperance, 368
Beaumont, J. J., the case of, 296 *note*
Bechuanas and drink, 352 *note*
Bedfordshire, drunkenness and crime in, 153
Beer—Act, 357; adulteration, 55; aloes in, 55; alum used for frothings, 55; buckbean in, 55; cocculus indicus in, 55; Dr. Drysdale on, and gout, 131; drinkers, fat in, 78; Drs. Beaumont and Brunton on fat in drinkers of, 79; drinking, 77; drinking during lactation, 224; gentian in, 55; molasses in, 55; oil of vitriol used to give age, 56; phosphoric acid in, 55; picric acid in, 55; quassia in, 55; sweetwort used for frothing, 55; salt in, 55, 77 *note; Scientific American* on general diseases resulting from, 140; sulphate of iron used to give the bitter taste in, 56; sulphuric acids used to give age, 56; water in, 55
Belgian army, drinking in the, 338 *note*
Belgium, drink question in, 275
Berlin, steam kitchen in, 383
Bessbrook estate, 438
Birmingham, public-houses in, 278
Blood, alcoholic degeneration of, 82; constituent parts of, 62; constitution of, 64; Drs. Becquerel, Rodier, and Albin Koch on constitution of, 64; effects of alcohol on, 76; influence of alcohol on the, 81; the nature and twofold mission of, 62; theories as to what becomes of alcohol after entering, 88, 89
Blood-vessels, disease of the, 135; mischief caused by alcohol, 86
Blue Ribbon movement, 449; Right Hon. W. E. Gladstone on, 452; significance of, 451
Botany originated by Aristotle, 34
Brain, first action of alcohol made direct on, 101; presence of alcohol in, 91, 93, 94; quality of, decides the quality of its communicating power, 113; twofold narcotizing action of alcohol on, and nerves, 109
Bread, alcohol in, 42
Breath, presence of alcohol in, 91, 92
Bright's disease and alcohol, 129
British Medical Journal on alcohol as a medicine, 186
Buckbean in beer, 55
Burglar must be wary and cool, 165

C

Calculus, 137
Cambyses and his cup-bearer, 17
Canadian schools, temperance education in, 397
Canterbury Convocations on drink, 229
Carbon, definition of, 38
Carbonic acid gas, 41 *note;* in coal mines, 42
Carthage and drink, 22
Cataract, 137

Catholic Total Abstinence League, 396
Cell theory established by Schwann and Von Mohl, 36
Cetewayo and drink, 354
Character, gradual weakening and final destruction of, by alcoholism, 163
Chemical elements, demonstration of, by Boyle, 35; of human body, 60
Children and drink, 297, 368–372; legislation against drinking by, 369; legislation for temperance education of, 393
Chinese supposed original discoverers of distillation, 27
Chronic alcoholic mania, 149; its symptoms, 150
Chronic alcoholic melancholia, 150; its painful delusions, 150
Chronic alcoholism, 128
Church, responsibility of the, in regard to drink, 417
Church of England Temperance Society, Bishop of Carlisle on its success, 422; origin and growth, 419; its purpose and mission, 421; *versus* grocers' licences, 362
Church proprietorship in public-houses denounced, 422
City of London Total Abstainers Union, 449
Clergy, responsibility of, in regard to drink, 417
Cocculus indicus in beer, 55; used in liquor adulteration, 47; a substitute for alcohol, 55
Cochineal used in colouring wine, 55
Coffee-tavern movement, 378; *Daily Chronicle* on, 381; Duke of Albany on, 432; History of, 379
Colchicum used in liquor adulteration, 47
Cold-bath treatment, summary of, 207; in typhoid fever, 205
Colocynth used in liquor adulteration, 47
Commune, results of drink under, 280
Compensation, in which all interests are satisfied, 349; publicans' side of the question, 348; to publicans, 347. *See also* Local option, Legislation, *and* Prohibition
Confederacy of the Southern States, downfall of, 338 *note*
Cooking, best system of, 385
Copper used in liquor adulteration, 47
Copperas used for frothing, 55
Crime, alcohol as a cause of, 152; amusements a check on, 417; opinions of the judges on alcohol and, 231–234
Crimes committed under alcoholic hallucinations, Prof. Krafft-Ebing on, 149
Criminality, alcoholic examples of unintentional, 156
Customs, drinking, 301, 428; origin and age of, 428; Queen's opposition to, 429
Cyrus, visit of, to King Astyages of Media, 16

D

Dalrymple Home for the cure of habitual drunkards, 372
Darlington and Stockton Railway Company and temperance, 444
Declarations, medical, concerning alcohol, 184–186; origin of third, 189; opinion of press on, 190; wording of, 191; impression on public mind, 192; medical opinions on, 192
Delirium Tremens, 143, 147; Dr. Maudsley's description of, 148; its symptoms and general characteristics, 147
Deluge, punishment for drunkenness, 8
Diabetes, 137
Diet for nursing mothers, 222
Digestion, Dr. F. R. Lees on the effects of alcohol on, 73; retarded

by alcohol, 71; summary effects of alcohol on, 75
Diocletian, barbarities of, 25
Dipsomania, or the craving for drink, 177, 178
Disease, definition of the term, 127
Diseases caused by alcohol, 127–151; due to the use of alcohol, Prof. Christison on, 129; Dr. Richardson on, 132
Distillation, Chinese supposed original discoverers of, 27; definitions of, 26; history of the discovery of, 25–33; unknown to the ancients (excepting possibly the Chinese), 2
——, spirit, 26, 27; Albucassis said to have discovered, 30; discovery attributed to the far East, 27; in Arabia, 29; old German legend attributes invention to the devil, 27 *note;* Rhazes, the Moorish physician, 30
Drawing-room and drink, 358–367
Drink, allegory of Mohammed, 23 *note*; among the ancients, 1–24; among the Vedic peoples, 3–6; amusements a check on, 417; a cause of insanity and suicide, 269; at the Adelphi, 415; black list of crimes due to, 227; Canterbury Convocations on, 229; children taught to, 297
—— customs, 301, 428; origin and age of, 428; Queen's opposition to, 429
——, decrease of population in France caused by, 281; distributing to crews, discontinuance of, 447; history in England, 308; in Assyria, 15; in Athens, 20; in Belgium, 275; in Carthage, 22; in Egypt, 18; in Greece, 20; in Media, 16; in Normandy, 281; in Persia, 16, 17; in Rome, 20; in Sparta, 20; in Syracuse, 22; instance of power of, to annihilate the will, 160
Moderation in, 312; *a greater virtue than abstinence?* 324; among the French, 322; definitions of, 313; effects upon temper and judgment, 321; entirely optional in our day, 312; no fixed standard possible, 312; practical worthlessness of the plea of, 314; preparatory stage of drunkenness, 316; publicans on, 313; various opinions on, 316–321
Drink mortality, 265
—— and poverty, 245, 400; chief cause of poverty, 399; mainspring of poverty, 240; Dr. Channing on poverty with or without, 166; relations between, and poverty, 239; report of special sanitary commissioner on poverty and, 260; responsibility of rich in the question of, and poverty, 407; responsibility of magistrates, etc., in regard to, 417; results for England, 275; specious arguments on account of climate, 314; statistics, 234; the deadly enemy of human happiness, 167; traffic and its evils, 236. *See also* Alcohol
Drinkers and abstainers, relative longevity of, 268
Drinking, and positions of trust, 445; fountains in London, 387 *note;* habits, social, 436; moderate, 312
Drunkard, moral insolvency of, 161
Drunkards, cure of habitual, 375
Drunkards' children, condition of, 256
Drunkenness, analogy of, with insanity, 144; habitual, universally condemned, 312; qualified by the kind of intoxicant, 156; examples of, 157
Durham, drunkenness and crime in, 153
Dyspepsia, alcoholic, 133

E

Edgar, King, attempts to check intemperance, 338
Education, Dr. Channing's definition of, 395; drink in its bearing on, 399; of the wealthy, 399 *note;* poverty the worst enemy of popular, 399; temperance, in American, Australian, Canadian, and German schools, 397; public schools, 396; public money devoted to, and war, 394
Egypt, drink and temperance efforts in, 18
Egyptians earliest brewers, 18
Egyptian worship of Bacchus, similarity between it and Greek, 12
Elderberries used in colouring wines, 55
Eleusinian mysteries, 13; abolished by the Emperor Herodosius the Great, 15
England, commencement of wine-drinking in, 309; drink history of, 308; drink results for, 275; hard drinking unknown in, until seventeenth century, 310; importance of sobriety in army and navy, 337; obligations of the Government in internal reforms, 335
English army, importance of sobriety in, 337; Lord Wolseley on drink in, 339; Major-Gen. Sir Evelyn Wood's experiences, 340
English nation, virility of, and drink, 308
Epileptiform mania, alcoholic, Dr. Mason on, 149
Epilepsy from alcohol, 138
Erysipelas largely due to alcohol, 130
Esquimaux and alcohol, 96
Essentia bina used in liquor adulteration, 47
Essex, drunkenness and crime in, 153
Ethyl-alcohol, discovery of, 37
Eye, narcotic effects on, 112
Eyes, alcohol and the, 137

F

Fermentation, discovery of, attributed to Jemsheed, 16 *note;* meaning and processes of, 39
Ferments, important *rôle* played by, 65; nature, action, and influence of, on life, 39
Ferrous sulphate used in liquor adulteration, 47
Fever, cold-bath treatment in typhoid, 205; mortality from typhoid, under alcoholic treatment, 206; Dr. Murchison on, 129; water-treatment in, 204
Food, alcohol as a, 66, 67; definition of, 61; Dr. Hammond on alcohol as a, 79; elements in alcoholic drinks, 76; in alcoholic drink not in the alcohol, but in the residuals, 78; paraffin as a respiratory, 89; reasons for belief that alcohol is a, 67; sugar an important element of, 68
Foods, alcohol tried by the tests of, 68; broadly divided into three classes, 61; chemical division of, 62; division of the regular, 62; the process of nutrition, 62
Forbidden fruit, vine the, 7
Forger must be sober, 165
France, decrease in population of, caused by drink, 281
Freemasonry and temperance, 431
French, moderate drinking with the, 322
—— army, deterioration of, caused by drink, 280
—— Revolution, 408

G

Geber on distillation, 29
Gentian in beer, 55
German schools, temperance education in, 397
Germany, a sixteenth-century temperance society in, 312; early moderation societies in, 332; reasons for their failure, 333

Ghazal, meaning of, 17 *note*
Gin-drinker's liver, 130
Ginger-beer, nature of, 378 *note*
Gout, Drs. Darwin, Drysdale, and Garrod on, 131; Sir William Temple on, 130; wines to be avoided in, 53
Grand Trunk Railway and temperance, 446
Grape, purple, origin of, 11
Graspers who succeed and who fail, 290
Greece and drink, 20
Greek worship of Bacchus, similarity between it and Egyptian, 12
Greenlanders and alcohol, 96
Griquas and drink, 351 *note*
Grocers' Licence Acts, 217, 357; G. R. Sims on social effects of, 363; protests in press against, 360; reasons for repeal of, 367

H

Habit, force of, 295; because of natural laws, 295; becomes instinct, 300–303; difficult to break, 300; of evil, 299; of hereditary, 298
Habitual drunkenness universally condemned, 312
Hallucinations, crimes committed under alcoholic, Prof. Krafft-Ebing on, 149
Hampshire, prohibition in, 441
Happiness, alcohol believed to be a great agent for producing, 289; foundation of human, 167; missed by man's self-deception, 291; searching after, 285; what it is and how found, 293
Hastings, battle of, lost through drink, 337
Health, definition of the term, 127; drinking, 434; example of recuperative powers of body, 392; specious arguments on, and strength, 328
Heart, disease of the, 134
Heredity, or the curse entailed on descendants by alcohol, 171–180; diseases of alcoholic, Prof. Krafft-Ebing on, 178; Drs. Bourgeois and Figg on, 172, 173; Dr. Lorin on general laws of, 172; Lacteal, 178 *note;* scope of hereditary effects, 173; the laws of, a protection to the race, 171; various authorities on, 174
Home of the drunken wife and mother, 161
Homes for drunkards, 372–376
Horns, symbol of Bacchus, 13
Human body, chemical elements of, 60; quantity of water in, 63
Huss, Dr., the originator of the term alcoholism, 128
Hydrogen, definition of, 38

I

India, increase of drinking in, 353
Indigestion, chronic, alcohol a prolific source of, 73
Indra-worship, 4–5
Infanticide, alcoholic, 266
Infants, water for, 389
Insanity, analogy of drunkenness with, 144; on the increase, 272; tables showing the assigned causes of (*see* Appendix)
——, alcoholic, 269, 279; Dr. Mason on, 145, 178; in Prussia, 281; in Russia, 282
Insomnia, 138
Instinct, 302
Intemperance, greater plague than war, pestilence, or famine, 231; juvenile, in Manchester and Liverpool, 368
Intention, difference between will and, 160
Intoxicant, qualifies kind of drunkenness, 156; examples of, 157
Intoxication, acts of, 291

J

Jews and drink, 23

K

Kepler extract of malt, 380 *note*
Kidneys, alcohol and the, 137
Kirsch, a brandy from the blackberry, 45
Kissing women on the mouth, supposed origin of, 22
Knowledge, first graftings towards, by means of the senses, 288
Koumiss --fermented milk, 45

L

Lactation, beer-drinking during, 224; child mortality from beer-drinking during, 225; evils of alcohol during, 218–224
Lamb's, Charles, pathetic warning, 159
Land nationalization, a cure for poverty, 409; examples of reasonable effects, 412; results of, without temperance reform, 411
Laplanders and alcohol, 96
Legislation, 367; dangers attending, 337; dangers attending political agitation, 341; for poverty, 407; futility of, as a cure for poverty, 408; Habitual Drunkard's Act, 375; international, on drink question required, 376; liquor, 357; need of a national permanent drink commission, 377; obligations of British Government in internal reforms, 335; parliament and the drink question, 228; parliamentary report on drink in 1834, 241; Queen's speech (1883), 344; suggestions for alleviation of poverty, 401; temperance education for children, 393
Licences, restriction of the power of renewing, 367
Licensing, summary of history of, 357
Life, average limit of, 58; alcohol inimical to, 70; alcohol a chief agent in shortening, 59; Dr. Herman's idea of limit of human, 57; ignorance chief cause of brevity of, 59; nature, action, and influence of ferments on, 39; water of paramount importance to, 63; wisdom inherent in organic, 60
Liquor adulterations. *See* Adulterations, liquor
Liquor-dealers, mortality among, 266
Liver, alcohol and the, 137; cirrhosis or shrinkage of, 130; Dr. Murchison on functional diseases of, 130
Liverpool, juvenile intemperance in, 368; social condition of poor in, 260
Local Option, 345; Sir Wilfrid Lawson's scheme, 345; Sir William Harcourt on, 346–347
Logwood used in colouring wine, 55
London, agitation for pure water supply in, 387; drinking-fountains in, 387 *note*; Bitter Cry of Outcast, 264; homes of the poor, 252–256; Horrible, 254; "How the Poor Live," 253; "Why should London wait?" 262
—— Temperance Hospital, history and progress of, 208; origin, foundation, and work of, 209; summary of all cases of typhoid fever treated in, 212; methods of treatment in, 216
Longevity, relative, of drinkers and abstainers, 268
Lord's Supper, intoxicating wine in the, 301; use of wine in, 423–428
Lullus, Raimundus, and spirit distillation, 30
Lungs, disease of the, 135
Lupulit, a narcotic drink, 56

M

Macrobians in the time of Cambyses, 58
Madagascar, liquor prohibition of

Queen of, 356; liquor treaty with, 355
Magistrates, responsibility of, in regard to drink, 417
Mallow-bloom used in colouring wine, 55
Malt not so nutritious as grain, 78
—— extract a promoter of easy digestion, 379 *note*; Kepler, 380 *note*
—— liquors, Drs. Beaumont and Brunton on the fat of drinkers of, 79; specially considered, 77
Malting, 45
"Man no longer dies, he kills himself," 173
Manchester, drunkards' children in, 256; juvenile intemperance in, 368
Mania-a-potu, 143, 146
Mankind, divided into two great factions, 290; power of alcohol over, 293
Martha Washington Home, 374 *note*
Media and drink, 16
Medical declarations concerning alcohol, 184–186; origin of third, 189; opinion of press on, 190
Medical profession, Dr. McMurtry's appeal to, 187
Medicine, alcohol as, 181–225; *British Medical Journal* on alcohol as, 186; Dr. Hare on decline in use of alcohol as, 197; former and present opinions of alcohol as, 198
Melancholia, chronic alcoholic, 150; its painful delusions, 150
Mental phenomena due to alcohol, 141–151
—— results of alcohol, general summary of, 157
Mestizos, English mechanics and Drink, 413 *note*
Methyl-alcohol, discovery of, 37
Middle Ages, drink in the, 25
Midland Railway and temperance, 445
Milk instead of alcohol in hospitals, 198
Milk, hot, a healthful drink, 378 *note*
Moderation in drink, 312; no fixed standard possible, 312; entirely optional in our day, 312; definitions of, 313; publicans on, 313; practical worthlessness of the plea of, 314; preparatory stage of drunkenness, 316; various opinions on, 316–321; effects upon temper and judgment, 321; among the French, 322; *a greater virtue than abstinence?* 324
—— societies, early, 332
Mohammedans and drink, 23
Mohammed's drink allegory, 23 *note*
Molasses used in beer for frothings, 55
Moral insolvency of drunkard, 161
Mortality among liquor-dealers, 366; from drink, 265
Murderer and drink, 165
Music, humanizing power of, 415

N

Narcotic, alcohol as a, 201
Narcotics, 102; definition and division of, 105; the most important, 104; various conflicting definitions of, 103
Narcotizing effects of alcohol, general conclusions as to, 121
National Temperance Federation, plan and organization of, 452;
National Temperance League, labours of, 396
Navy, English, importance of sobriety in, 337
Nerves, action of alcohol on, 102; paralyzing effect of alcohol on, 105, 114; twofold narcotizing action of alcohol on brain and, 109
Nervous diseases from alcohol, 138
Nervous system, Dr. Cantile on character and functions of, 99; effects of alcohol on, 98; physiology of, 98
New York Christian Home for Intemperate Men, 374 *note*

New York city, rum shops in, 278
Nitrogen and oxygen, discovery of, 35
Noah, said to be Saturn, 12; thought to be original Bacchus, 11
—— and Satan planting the vine, 9
Normandy, drink in, 281
Northumberland, drunkenness and crime in, 153
Nutrition, the process of, 62

O

Oatmeal drink, 379 *note*
Oil of clove in liquor adulteration, 46
—— of turpentine first obtained by Arnoldus Villa-Novus, 31
—— of vitriol to give age to beer, 56
Organic diseases from alcohol, 134
Oxidation, discovery of the basis of, by Lavoisier, 35
Oxygen, definition of, 38
—— and nitrogen, discovery of, 35

P

Paraffin as a respiratory food, 89
Paralysis, conditions qualifying length, extent, and character of alcoholic, 120; from alcohol, 138; incipient alcoholic, 111
Parentage, responsibility of, 171
Paris, siege of, drink during, 280
Parliament and the drink question, 228
Parliamentary report in 1834 on temperance, 241
Pathological results of alcohol, 127–151
Patriotism, groundwork of all, 295
Pauperism, drink the mainspring of, 240
Persia and drink, 16, 17
Phosphoric acid the hop aroma in beer, 55
Phthisis, alcoholic, 135
Physicians, responsibility of, in regard to drink, 417
Physiology, in temperance reform, 334; organic scientific, established, 36; originated by Aristotle, 34
Physiological effects of alcohol in small doses, 115–120; results of alcohol, 57–126; general summary of, 125; physiological and mental results of alcohol, general summary of, 157
Picric acid in beer, 55
Pig, fable of drunken man and sober, 158
Poison, definition of, 64; division into two groups, 64;
Poisons used in liquor adulteration, 47
Political agitation, dangers attending, 337, 341
Port wine adulterations, 48
Poverty, caused by drink, 399, 400; drink the mainspring of, 240; futility of mere legislation on, 408; land nationalization a cure for, 409; Mr. Gladstone on, 400; propagation of, 372; State aid, 404; suggestions for alleviation of, 401; with and without drink, Dr. Channing on, 166; worst enemy of popular education, 399
—— and drink, 245–400; report of special sanitary commissioner, 260; responsibility of the rich in the question of, 407; relations between, 239
Pregnancy, evils of alcohol during, 219
Progress, human foundation of, 167
Prohibition—Artisans', Labourers', and General Dwelling Company, 442; Bessbrook estate, 438; dangers attending political agitation for, 341; estate in Tyrone, 438; in Hampshire, 441; initiary measures for, 345; in St. Johnsbury, Vermont, 443; in Saltaire, 441; in the town of Pullman, U.S.A., 443; Queen of Madagascar's

proclamation, 356; real estate companies, 442; village of White Coppice, 441; when practicable and beneficent, 343. *See also* Local Option *and* Legislation
Prostitution and alcohol, 274
Prussia, alcoholic insanity in, 281
Pseudo-stimulant, meaning of term, 105
Publicans, compensation to, 347; mortality among, 266
Public-house, proposal for a mission to start, 306 *note*
Public-houses, Church proprietorship denounced, 422; low windows compulsory for, 367; payment of wages at, 435
Public schools, temperance education in, 396
Pullman, town of, prohibition in, 443

Q

Quarterly Medical Temperance Journal established, 186
Quassia in beer, 55
Quicklime sometimes used in rectifying spirits, 47

R

Railway companies and temperance, 444
Real estate companies, prohibition in, 442
Rectification, 27
Refreshment Houses and Wine Licences Act, 357
Religion, man's self-deception in, 292
Rhazes, the Moorish physician, and spirit distillation, 30
Rhine wines, adulterations of, 48
Rich, duty of, to provide innocent amusement for the poor, 417; responsibility of, for the drink evil, 437; in question of poverty and drink, 407
Rig-Vedas, the, 3
Robinson, Captain, the case of, 296 *note*
Rome, results of intemperance in described by Seneca, 22; temperance efforts in, 21
Rome and drink, 20
Rum, recipe by Dr. Riant for making, 47; recipe for making old Jamaica, 47; spirit from sugar refuse, 45
Russia, alcohol during the campaign of 1812 in, 96; alcoholic insanity in, 282

S

St. Johnsbury, Vermont, prohibition in, 443
Salt in beer, 55, 77 *note*
Saltaire, prohibition in, 441
San Francisco, Inebriates' home at, 373 *note*
Santschu, a drink in China and Japan, 28
Sarcostemma acidum, 3
Sardanapalus, motto of, 15
Satan and Noah planting the vine, 9
Satyavarman, 12
Science, man's self-deception in, 292
Scotland, temperance reform in, 356 *note*
Seneca, results of intemperance in Rome described by, 22
Sensory disturbance from alcohol, 133
Serpent worship, 12, 13
Sherry, adulteration of, 49
Siam, liquor treaty with, 355
Silver King, 415
Skin, alcohol present in evaporations of, 92, 93; Mr. Startin on diseases of, 130; vascular changes in the, 133
Sleeplessness and alcohol, 138
Smoke, alcohol from, 42 *note*
Sobriety, Mr. Joseph Cowen on importance of, 414; relations between it and crime, 156
Social drinking habits, 436
Society, general effects of alcohol on, 226-282; opinions on de-

structive effects of alcohol on, 230
Soma, 3; real character of, 4; unique properties of, 5, 6
Sparta and drink, 20
Spirit, definition of, 26
Stage, power and province of the, 415
Statistics, drink, 234; general value of, 226
Steam kitchen in Berlin, 383; in Stockholm, 384
Stimulant, alcohol as a, 200; alcohol no right to be called a, 119; effects of alcohol as a mental, 121
Stimulants, 102; definition of, 105; divided into invigorators and prostrators, 105; the most important, 104; various conflicting definitions of, 103
Stockholm, steam kitchen in, 384, 385
Stomach, Dr. Beaumont's experiments on the Canadian hunter's, 74; effects of alcohol on, 73
Stout, child mortality from use of, during lactation, 225
Stramonium in liquor adulteration, 46
Strichnia in liquor adulteration, 46
Sueves and drink, 23
Suicide, drink as a cause of, 269
Sugar, alcohol derived from, 39; important element of food, 68
—— of lead in liquor adulteration, 46
Sulphate of iron used in beer to give a bitter taste, 56
Sulphuric acid, in liquor adulteration, 46; used to give age to beer, 56
Sura, 4; a national curse, 6
—— drinkers, penalties imposed upon, 6
Sweden, school savings-bank system in, 398
Sweetwort used in beer for frothings, 55
Syracuse and drink, 22

T

Tafia, a brandy from molasses, 45
Temperance, foundation of national regeneration, 411; Parliamentary report in 1834 on, 241; relative healthfulness of, and drink, 268
Temperance movement, abroad, 192 *note*
———— and the aristocracy, 449; characteristics of modern, 333; commencement of modern, 334; medical history of, 182; the three medical declarations concerning alcohol, 184–186
Temperance reform, Archbishop Benson on, 420; foundation in individual character and worth, 455; in Scotland, 356 *note*; interest of Duke of Albany in, 432; interest of Prince of Wales in, 431; on railroads, 444; physiology in, 334; Queen's sympathy with, 429; vested in love, labour, and humility, 456; why past efforts failed, 332
Temperature of body, effect of alcohol on, 95
Therapeutic uses of alcohol, principal, 199
Tissues, meaning of alcoholic preservation of, 80; parallel effects of alcohol on the nervous and muscular, 100
Toasts and health-drinking, 434
Tobacco used in liquor adulteration, 47
—— plant, the forbidden fruit, 7 *note*
Total abstinence a qualification for Church membership, 425
Trade customs, 435
—— uses of alcohol, 44
Traditions, ancient wine, 6–12
Tremor, alcoholic, Prof. Kraft-Ebing on, 140
Tyrone, prohibition estate in, 438

U

United States, annual drink bill of, 275; liquor consumption of, 277; liquor industry of, 276; liquor revenue of, 277; statistics of public-houses in, 278
Urine, alcohol traceable in, 92, 93

V

Vedic people, drinking among the, 3–6
Vice, propagation of, 372
Villa-Novus, Arnoldus, and spirit distillation, 31
Vine, legends of, 8 *note;* planting edict, Emperor Domitian's famous, 22; the forbidden fruit, 7; planted by Noah, a sprig from Paradise, 8

W

War and education, public money devoted to, 394
Washington Home of Chicago, 373 *note*
Water, agitation for pure, in London, 387; bibliography of, by Dr. Plöhn, 392; Drs. Becquerel, Rodier, and Albin Koch, on proportion of, in blood, 64; drinking, 390; drinking in 1498, 308; for infants, 389; functions of, 63; pure, greatest essential for life and health, 386; in beer, 55; of paramount importance to life, 63; ordinance in Antwerp, 387; quantity of, in human body, 63; scavenger of body, 84; therapeutic properties of, 390; treatment in fevers, 204
Wealth, Dr. Channing's true use of, 395
Wealthy, education of, 399 *note*
West Lancashire Railway Company and temperance, 444
Westminster, Duke of, on temperance, 451
White Coppice, prohibition in, 441
Whortleberries used in colouring wine, 55
Will, clever disguises assumed by the alcoholized, 164; difference between intention and, 160; effect of alcohol on, 160; in general life, 165; in political life, 164; in the relations between master and man, 164; instance of power of drink to annihilate, 160; negative loss of, 165; positive loss of, 166
Wine, ancient traditions, 6–12; commencement of drinking, in England, 309; milk of Venus, 11; use of, in Lord's Supper, 423
Wines, adulterations of, port, 48, Rhine, 48, sherry, 49; fortified for export, 51, 52; fortified by potato spirit in London docks, 52; ills caused by drinking adulterated, 54; *Lancet* on nutritious elements in, 76; mallow-bloom, whortleberries, elderberries, cochineal, and logwood used in colouring, 55; reasons for adulteration of, 47; rectification with prepared chalk, 53; Spanish, manufactured from raw German spirits, 52; *Daily Telegraph* on, 52
Wisconsin Central Railway and temperance, 445
Women and alcohol, 358–367
Work, capacity for, reduced by alcohol, 123
Worth, human, foundation of, 167

Y

Yeast fungi, generation of, 40

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