

**Catechism of health : sure guide to health and longevity, chiefly for the use of schools, and the lower orders of society / by Bernard Christopher Faust ; translated from the German, revised and edited, with notes, and a memoir of the author, by a physician, with remarks on the cholera.**

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LEWIS CORNARO.  
At the Age of 100 Years.

Drawn on Stone by J. W. Giles after a Painting by Titian.  
*(Merrifield lith 302 Oxford St)*



# CATECHISM OF HEALTH;

SURE GUIDE TO HEALTH AND LONGEVITY,

CHIEFLY FOR THE

USE OF SCHOOLS, AND THE LOWER  
ORDERS OF SOCIETY.

BY

BERNARD CHRISTOPHER FAUST,

*PHYSICIAN TO THE LATE DOWAGER PRINCESS JU-  
LIANA OF SCHAUMBURGH LIPPE.*

TRANSLATED FROM THE GERMAN.

REVISED AND EDITED,

WITH NOTES, AND A MEMOIR OF THE AUTHOR,

BY A PHYSICIAN.

WITH

REMARKS ON THE CHOLERA.

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LONDON:

PUBLISHED BY T. RICHARDSON,

245, HIGH HOLBORN.



HYGIENE OF HEALTH

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## PREFACE.

THIS Catechism of Health has been translated into most European languages. An English translation by H. Basse was published at London in 1794, 12mo. It was translated into Danish, by John Clement Tode, Copenhagen, 1794; and into the Bohemian dialect by T. I. Tomsy, 1794, 8vo. The following passage is extracted from the first edition:

“ The Dowager Princess Juliana of Schaumburgh Lippe first conceived the blessed idea of causing a Catechism of Health to be written and published for the use of schools and instruction of children at the close of 1791, when many through ignorance fell victims to the baneful influence of the bloody flux or dysentery.\* This Catechism, in an imperfect state, appeared in 1792, yet eighty thousand copies of it were sold, and it was introduced into schools as a book of instruction.”

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\* The dysentery of 1791, was very nearly as fatal in Germany and Switzerland as the Cholera has lately been in the North of Europe, and the symptoms of both diseases are “ *remarkably analagous*.” That this is a fact, any medical man who will read “ Zimmerman on Dysentery ” will be convinced of, and may, perhaps, be lead by considering the analogy of the two diseases, to a more perfect knowledge of the pathology and real nature of the epidemic Cholera.



In the schools in this country costly engravings illustrative of subjects of natural history, of the growth, inflorescence, and fructification of plants, geographical maps, and ingenious charts of history and chronology abound, but few works of any kind, descriptive of the human frame, are to be found ; and fewer still descriptive of the maladies to which it is liable ; a subject more practically useful than all the others put together. Well did the poet say, "the proper study of mankind is man." Human happiness can not be more effectually promoted, than by inculcating at a tender age the means of preserving the health of the human frame.

I cannot conclude this short preface without expressing my regret that one of my professional brethren should, in the preface to his Catechism of Health,\* describe this valuable little book in terms so disrespectful of the venerable author.

H. H.

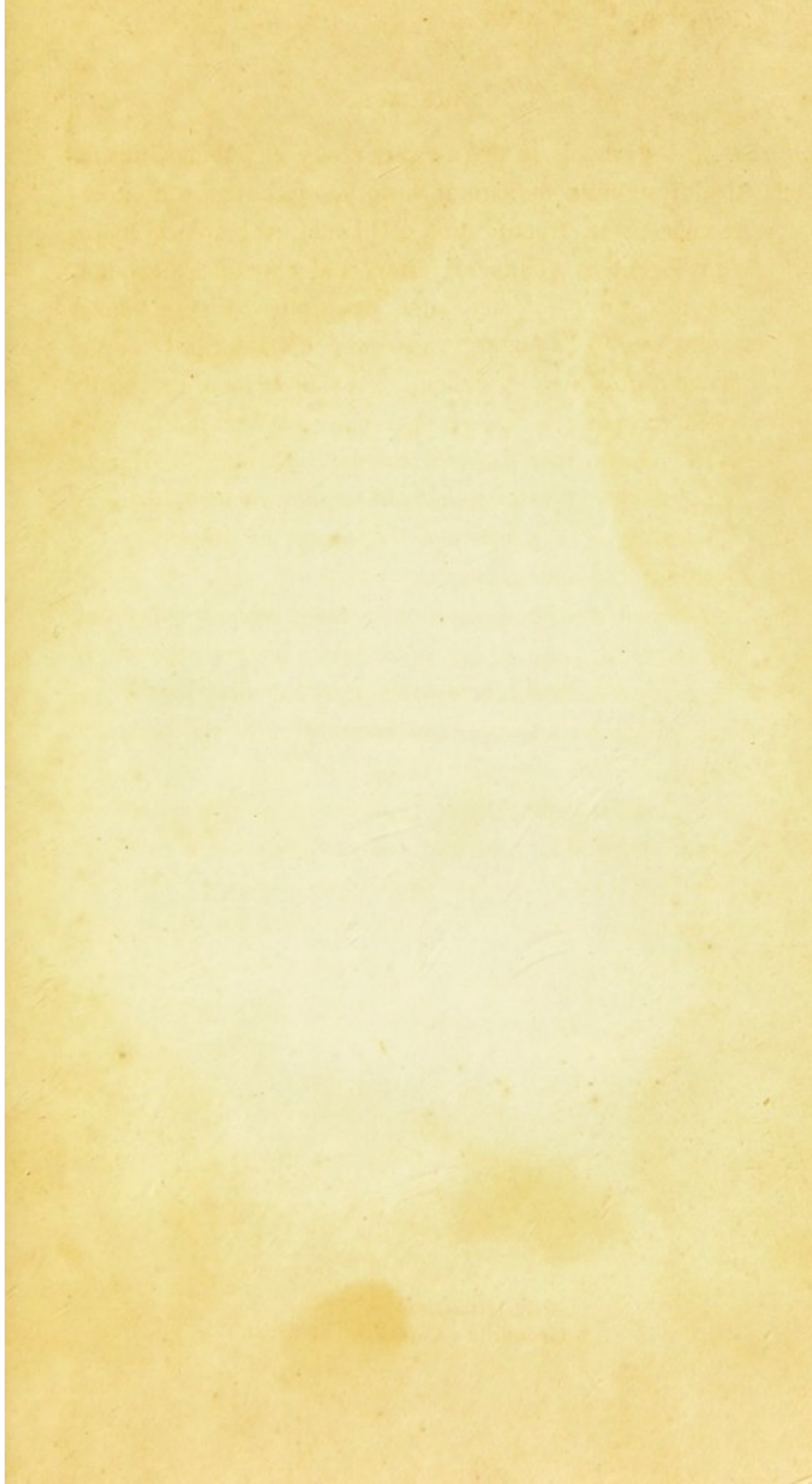
EDITOR.

London,

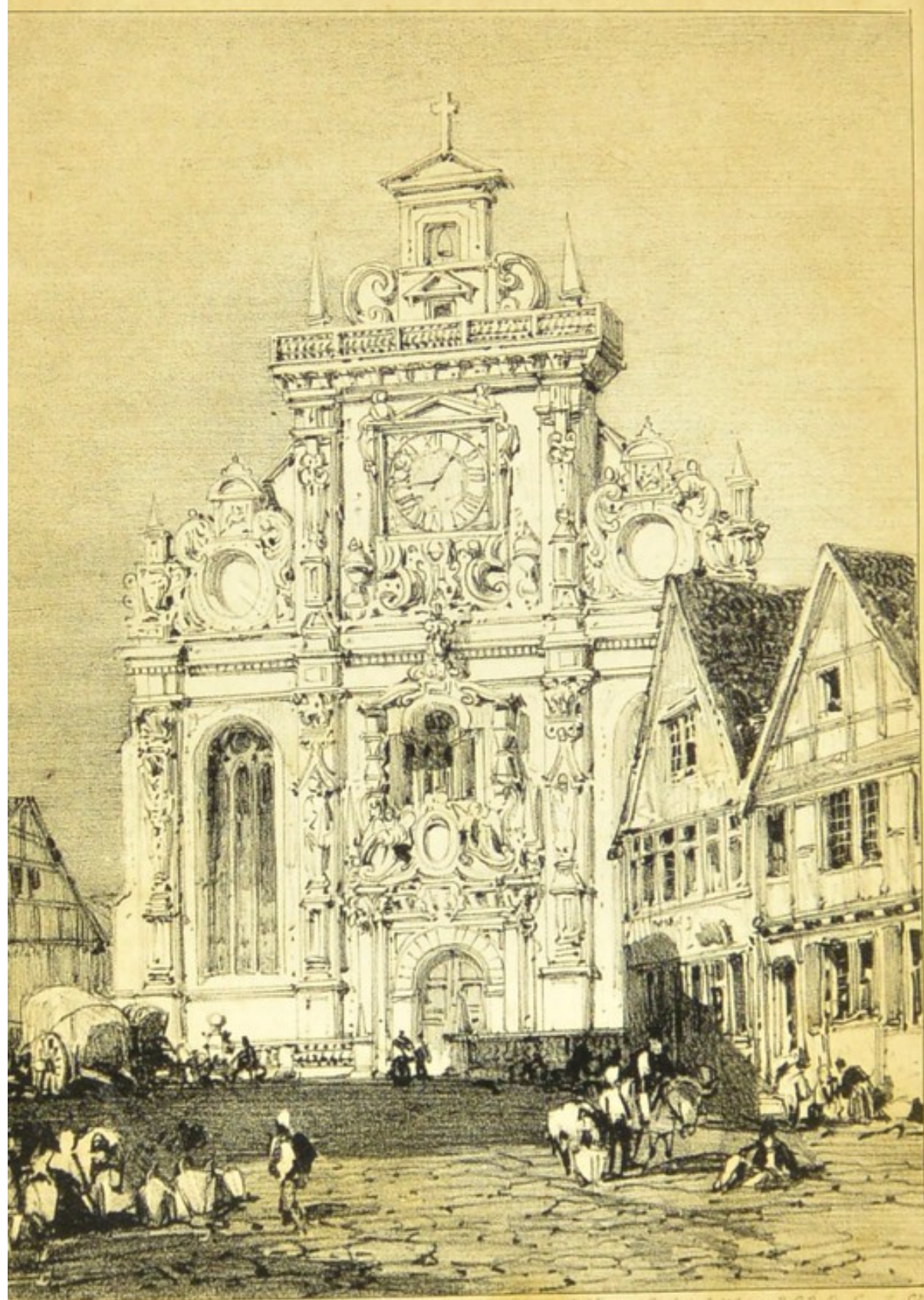
Jan. 20, 1832.

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\* Grenville's Catechism of Health.







*J. Harrisfield Lithog. 302, Co. 5th St.*

TUCKERSBURG CATHEDRAL.



## MEMOIR OF THE AUTHOR.

BERNARD Christopher Faust, of Buckeburg ; eminent as a physician since the year 1788, and as an author since 1780,—was born the 23rd of May, 1755, at Rottenburg, in Wirtemberg, where his father was a physician. He studied medicine at Göttingen, and took his degree at Rinteln on the Weser, in 1777. From thence he returned to his native place where he practised for some years ; and afterwards Buckeburg. In 1794, he published his work “ on the periods of human life.” “ Die Perioden des menschlichen lebens,” Berlin 1794, 8vo. His ambition to make himself generally useful, did not permit him to confine his pursuits to scientific subjects ; although advanced in years, he seized the pen with the zeal and warmth of youth, and neglected no means in his power to promote the public health, and to restrain and abolish unwholesome and injurious habits.

As early as 1794, he published the treatise on the small pox, entitled “ Versuch ueber die pflicht der Menschen—jeden Blatternkranken von der gemerischaft der gesunden abzusondern. Buckeburg et Leipzick,” 1794, 8vo. Inculcating the necessity and the duty of separating those infected from the healthy, and, in this manner, to extirpate the disease. This prudent and valuable advice not being pro-



perly attended to, he read it before the ministers assembled in congress at Rastadt, in the year 1798.

In the years 1802 and 1804, when Jenner's Philanthropic discovery was published, he contributed much towards the propagation of the cow-pox, and wrote urgently in behalf of public inoculation.

Many defects connected with the practice of midwifery did not escape him, and he has published many valuable suggestions on the subject. In all periodical works, Dr. Faust has anxiously insisted upon the more humane treatment of the wounded in the field of battle, and assisted in 1806, in the publication of a work "On the sanctity of the Field-hospital, a description of a machine for fractured limbs," and some other useful works of the kind. His works are too numerous to be mentioned here; but the most generally useful one is the Catechism of Health—*Gesundheitskatechismus*."

On the 19th of July, 1827, he celebrated the jubilee of his fiftieth professional year. The Prince of Schaumburgh Lippe presented him on the occasion with a magnificent medal, and the King of Prussia sent him the order of the Red Eagle of the third class.



## TO SCHOOLMASTERS

ON THE USE OF THE

# CATECHISM OF HEALTH.

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WORTHY and respectable members of society, you love those children that are sent to you to be educated, to imbibe such instructions and doctrines as will render them healthy, sensible, virtuous, and happy.

This book teaches how man from his infancy ought to live, in order to enjoy a perfect state of health, which, as Sirach says, is better than gold. You will, therefore, with pleasure, I hope, instruct your dear little pupils in its principles; and as able and experienced men, convinced that the mere learning of the answers by heart can be of no advantage to children, you will have no objection to instruct them after the following method.

1. The chapter which is chosen for instruction ought first to be read by the master, and then by two children that read perfectly well and distinct; one of them reading the questions, the other the answers regularly and in order to the end of the chapter; the master, understanding thoroughly what has been read, explains its general import.

2. He then explains each query and answer particularly, and the meaning of the words and ideas. He elucidates



answers and resolves questions, consisting sometimes of more than one sentence, in a concise, simple manner, easily conceivable by the intellects of children. He converses with them, and, in a perspicuous manner, by easy, simple, and slowly progressive questions, inculcates the truths and doctrines contained in the chapter.

The queries and answers ought to follow each other in regular and natural order, that the children by their own judgment and understanding may find out and conceive what is true and good.

After they are perfectly acquainted with the true meaning of one query and answer, the next is introduced, and so on, till they are made familiar with the true intent and meaning of them all singly.

3. The master then examines the children through the whole chapter. If he finds that they are well acquainted with its contents, the lecture is concluded by repeating what has been taught, and by asking each child "What he or she remembers of it?"

4. The master then asks the following questions, leading to answers different from those already given :—

"Which of you would now, after these salutary instructions, do such or such mischief?"—"Would not you do such a thing, so or so?"—"Would not you repeat such or such a thing to your parents or friends at home?"—"How would you contrive it, that such or such a custom might be altered, or things done in such a way, as, from what you heard just now, they ought to be done?"—"Do you know any body whom you could benefit by acquainting him with what you have learned to-day?"—"Which of those excellent rules for your future conduct have you resolved to follow?"



5. The subjoined observations will enable a master possessed of any judgment to explain and confirm many truths, that will be both instructive and pleasing to his pupils.

6. When, for instance, a fever, small-pox, measles, flux, or other disease, rages in the neighbourhood, the chapter that treats of those maladies ought to be frequently, and in preference of all others, read.

7. An hour, at least, twice a week, ought to be devoted to such instruction, in order that the whole "Catechism of Health" may be gone through twice a year, and the minds of the children impressed with the true spirit of its doctrine.

In this manner, my worthy friends, I beseech you to instruct your pupils ; and if you do so, rest assured, that the present, as well as future generations will be under obligations to you for their health and happiness ; and the Almighty, whose Divine Will it is that all mankind should be rendered temporally and eternally happy through the knowledge of truth, and who leaves nothing unrewarded, will reward you according to your different degrees of merit, in this and in the world to come.



The subject of education will enable a master to  
 of any judgment to explain and confirm many  
 that will be both instructive and pleasing to his  
 pupils.

When, for instance, a fever, small-pox, measles,  
 or other disease, rages in the neighbourhood, the  
 master that treats of those maladies ought to be frequently  
 in attendance of all others, read.

At home, at least twice a week, ought to be de-  
 voted to such instruction, in order that the whole "Cate-  
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# CATECHISM OF HEALTH.

## PART I. CHAPTER I.

OF HEALTH ; ITS VALUE, AND THE DUTY OF PRESERVING IT, AND OF INSTRUCTING MANKIND, PARTICULARLY CHILDREN, IN THESE IMPORTANT SUBJECTS.

Q. DEAR children, to breathe, to live in this world, created by God, is it an advantage ? is it to enjoy happiness and pleasure ?

A. Yes. To live is to enjoy happiness and pleasure ; for life is a precious gift of the Almighty.

Ps. cl. 6. Let every thing that has breath praise the Lord.

Ps. cxlv. 16. Thou, O Lord, satisfiest the desire of every thing living.

Ps. xxxvi. 5, 8. Thy mercy, O Lord, is in the heavens ; and thy faithfulness reacheth unto the clouds. They shall be abundantly satisfied with the fatness of thy house ; and thou shalt make them drink of the river of thy pleasures.

Ps. cxxxvi. 1, 8, 9, 25. O give thanks unto the Lord, for he is good. To him that made the sun, to rule by the day ; the moon and stars to rule by night ; who gives food to all flesh : for his mercy endureth for ever.

Q. What other proof have we to shew that life is an excellent gift of God ?

A. The instinct, or natural anxiety of mankind to preserve it.

Q. What must be the state of the human body, the habitation and slave of the soul, that man may enjoy a long, prosperous, and happy life ?

A. It must be healthy.



Q. How else can you prove that man ought to be in a state of good health ?

A. By the commandment of God, viz. " In the sweat of thy face shalt thou eat bread." Gen. iii. 19.

Q. Can we possibly promote the perfection and happiness of our souls, if we do not take proper care of our bodies ?

A. No. God has so intimately united soul and body, that, by a rational care taken of the body, the happiness and purity of the soul are increased.

Q. What is understood by a state of good health ?

A. That the body is free from pains and infirmities, fulfils its duties cheerfully and with ease, and is always obedient to the soul.

Q. How does he feel who enjoys health ?

A. Strong ; full of vigour and power ; he relishes his meals ; is not affected by wind and weather ; goes through exercise and labour with ease, and feels himself always happy.

Q. And what are the sensations of the sick ?—are they like those we have described ?

A. By no means ; the sick man feels himself weak and feeble ; he has no appetite ; he cannot work, nor brave wind and weather ; he labours under continual anxiety and pains, and very few are the pleasures of his life.

Q. Can you children be merry and laugh, joke, and jump about, eat, drink, and sleep, when you are ill ?

A. No. We can only do so when we are in good health.

Q. The blessings of health then must be very great ?

A. They are indeed. Health is the most precious good, and the most certain means of enjoying all other blessings and pleasures of life.

Q. What says Sirach of health ?

A. In the 30th Chapter, v. 14, 15, 16, he says, " Better is the poor being sound and strong of constitution, than a rich man that is afflicted in his body. Health and good estate of body are above all gold, and a strong body above infinite wealth. There is no riches above a sound body, and no joy above the joy of the heart."

Q. Cannot the sick, as well as the healthy, enjoy the blessings and pleasures of life ?



A. No. They have no charms for the sick.

Q. Of what use then is all worldly happiness to him who is sick and cannot enjoy it?

A. Of very little use, if any.

Q. If then health be the most precious boon of life, what duties has a man in that respect to discharge towards himself?

A. He must strive to preserve it.

Q. Is it sufficient if he take care of his own health?

A. No. It is also his duty to take care of the life and health of his fellow-creatures.

Q. And what is the duty of parents towards their children?

A. They are bound to take the tenderest care of their health and life.

#### OBSERVATION.

School-masters and parents ought to seize every opportunity of impressing on the minds of their children, the great importance of the invaluable blessings of health, and the consequent duty to preserve it, by innocent pleasures, conducive to a great accession of health. They ought, on the other hand, to point out the mournful instances of multiplied sorrows and miseries which present themselves daily to our view, in the persons of the sick and diseased.

Q. Do they fulfil this duty?

A. Very seldom.

Q. Why so seldom?

A. 1. Because few of them are sensible of the real value of health.

2. Most of them are ignorant of the structure and state of the human body.

3. Equally ignorant of what is conducive or hurtful to health.

Q. What is the cause of this ignorance?

A. The want of proper instructions.

Q. But, as God wills the happiness of all mankind, should they not be brought from ignorance to the knowledge of truth?

A. Yes. It would be right, good, and dutiful to in-



struct every body, particularly little children like us, and to teach us the structure of the human body, and the best means of preserving health.

Q. Is it not, therefore, your duty to pay the greatest attention to the instructions which you are now to receive, respecting the most valuable boon of life?

A. We shall exert ourselves to the utmost to understand and to remember them.

Q. Is it sufficient to receive those instructions, and to remember them?

A. We should also strictly conform ourselves to those instructions.



## CHAPTER II.

## OF THE DURATION OF LIFE, AND THE SIGNS OF HEALTH.

Q. WHAT is the usual period of human life ?

A. Life is the best gift of God to man, who ought to enjoy it a very long time, and therefore live to an old age, as was intended.

Ps. lxxx. 10. The days of our life are three-score years and ten, and if by reason of strength they be four-score years.

## OBSERVATION.

According to the structure of the human body, the long bones of the limbs consist till the eighteenth year of three pieces, that they may grow after that time longitudinally till the period of adult age; and this wise disposition in the structure of the body would be without design, if man were destined to die in his infancy. Beside, from the whole nature of man, it can be proved that he is formed to live a long time, till body and soul have attained their ultimate degree of perfection; till the body is worn out, and the soul has accomplished its destination, then the one is to return into the bosom of nature, and the other into the hands of the Almighty, there to remain till the happy day of eternal bliss. The tears of parents on the mournful occasion of the early demise of their infants, are therefore very just.

Q. What has God promised as the greatest earthly reward to those that honour father and mother, and keep His commandments ?

A. That their days shall be long upon the land, which the Lord our God gives them.

Q. How long is man destined to enjoy health ?

A. He ought to live almost uninterruptedly in a perfect state of health.



Q. What epithet is applied to a man, who, only at intervals, suffers little inconveniences from a short illness ?

A. The epithet *healthy*.

Q. What epithet is applied to a man, who is, not only weak, but also spends the greatest part of his life on a bed of sickness ?

A. The epithet *unhealthy*.

Q. What are the signs of an uninterrupted state of health, enjoyed by a man at the age of maturity ?

A. The fresh and healthy colour of his face, the quickness of his senses, the strength of his bones, and the firmness of his flesh ; large veins full of blood ; a large and full breast ; the power of breathing slowly and deeply without coughing ; eating with appetite, and digesting well ; taking much exercise, and bearing continued labour without fatigue ; sleeping quietly and soundly, and enjoying cheerfulness of mind, and serenity of countenance ; all denote an uninterrupted state of health.

#### OBSERVATION.

All aliment ought to consist of solid substances, adapted to the number and strength of the teeth ; the teeth serve chiefly for mastication ; digestion, and of course, the nourishment, health, strength, and happiness of a man depend, in a great degree, on the mastication of the solid part of the food, which is mixed with the saliva, and converted into a sweet milk-like fluid, called chyle : it is, therefore, necessary that a healthy man should have a sound set of teeth.

Q. Can one always and solely depend upon these signs of health ?

A. No. They are apt to deceive sometimes.

Q. What must be done, in order, unerringly, to ascertain whether an apparently healthy man be so in reality ?

A. The temperament, health, and virtuous or moral conduct of his parents, ought to be considered.

Q. What ought to be the state of health of the parents of a healthy person ?

A. The father as well as the mother ought to be strong and vigorous, not deformed, nor subject to such diseases as may descend to their children, viz. Consumption, Scro-



fula, the Evil, Epilepsy, &c. They both ought to have a good constitution, and the prospect of attaining old age in good health, and should be of a virtuous disposition.

Q. Why is it necessary for them to be virtuous ?

A. Because the virtues of the parents are discovered in the children, and because virtuous parents encourage their children by their example, to endeavour to become worthy and honourable members of society.

Q. What then must be the disposition of those parents, who wish to bring up virtuous and healthy children ?

A. They must be virtuous and healthy themselves.



## CHAPTER III.

OF THE CONSTRUCTION, OR STRUCTURE OF THE  
HUMAN BODY.

Q. How is the human body constructed ?

A. With infinite wisdom and goodness, and in the most appropriate and perfect manner.

## OBSERVATION.

A book of instruction for schools, on the admirable construction of the human body, and on the functions of its different parts, elucidated by correct prints, ought to be, and soon will be published, being as necessary as useful.\*

Q. What have we in particular to observe with respect to the perfect structure of the human body ?

A. That it is endowed with the greatest and most appropriate powers, tending to preserve life and health, to remove diseases, or to heal wounds.

Q. If the body contain any thing unnatural, or if it has been wounded, or otherwise hurt, so as to cause its functions to be obstructed, how do those powers act ?

A. They operate, more or less, powerfully to expel from the body all that is unnatural, or to heal its wounds.

## OBSERVATION.

If a splinter stick in any part of the body, irritated nature produces matter to expel it. If the stomach be loaded with bile, or putrid matter, nature strives to remove it by vomiting. If a particular sickly state of body should become dangerous to life, nature arouses all her energy to remove it; a shivering or heat, or a fever, will generally take place, by which nature attempts to concoct the offending matter, or, what more commonly happens, expel it from the body. If a person has broken one of his limbs, nature will soften the broken ends of the bone, in order that they may unite without plaister or salve: but the previous assist-

\* See Note 1.



ance of an able surgeon is required to bring the broken ends of the bone in contact, and secure them so, after which, tranquillity and rest are necessary.

Q. Can the body, notwithstanding all those great powers with which God has endowed man, sustain any injury ?

A. The healthy and vigorous man is very seldom subject to any.

Q. But as we, nevertheless, see so many objects of pity, what may be the real reason of their sufferings ?

A. Weakness ; or the want of pure vital faculties.

Q. Is this weakness natural ?

A. No. Naturally man is strong, full of vigour and health.

Q. How have so many contracted this weakness ?

A. Generally through their own faults, or through ignorance.

Q. Is there not another particular reason why men are so weak ?

A. Yes. Their weakness has been hereditary, and transmitted to them from generation to generation.

Q. What must men do, that they may be less exposed to sickness ?

A. They must do every thing to recover their natural strength.

#### OBSERVATION.

By this strength, you must not understand a rude, but a cultivated strength, when the body is accustomed to exercise, and is full of life and vigour.

Q. By what means can man recover his natural strength ?

A. By receiving a judicious and liberal education, and leading a prudent life.

Q. By what particular means can a strong and healthy body be injured, or rendered unwholesome ?

A. By a bad education and corrupt way of living ; by intemperance in eating and drinking ; by unwholesome food and spirituous liquors ; by breathing bad or unwholesome air ; by uncleanness ; by too great exercise or inactivity ; by heats and colds ; by affliction, sorrow, grief, and misery ; and by many other means, the human body may be injured, and loaded with disease.



## CHAPTER IV.

## ON THE ATTENDING AND NURSING OF INFANTS.

Q. WHAT does the little helpless infant stand most in need of?

A. The love and care of its mother.

Q. Can this love and care be shewn by other persons?

A. No. Nothing equals maternal love.

Q. Why does a child stand so much in need of the love and care of its mother?

A. Because the attendance and nursing, the tender and affectionate treatment which a child stands in need of, can only be expected from a mother.

Q. How ought infants to be attended and nursed?

A. They ought always to breathe fresh and pure air; be kept dry and clean, and immersed in cold water every day.

Q. Why so?

A. Because children are now, at the time alluded to, more placid, because not being irritable, they grow and thrive better.

Q. Is it good to swathe a child?

A. No. Swathing is a bad custom, and produces in children great anxiety and pains; it is injurious to the growth of the body, and prevents children from being kept clean and dry.

Q. Do children rest and sleep without being rocked?

A. Yes. If they be kept continually dry and clean, and in fresh air, they will rest and sleep well, if not disturbed; the rocking and carrying about of children is quite useless.

Q. It is, therefore, not advisable, I suppose, to frighten children into sleep?

A. By no means; because they may be thrown into convulsions, and get cramps.

Q. Is it necessary or good to give children composing draughts, or other medicines that tend to promote sleep?

A. No. They cause an unnatural, and of course, unwholesome sleep; and are very dangerous and hurtful.



Q. How long must a mother suckle her child ?

A. For nine or twelve months.

Q. What food is most suitable for children ?

A. Pure, unadulterated cow's milk, with a little water and thin gruel ; grated crusts of bread, or biscuit boiled with water only, or mixed with milk.

Q. What is in general to be observed with regard to feeding children ?

A. That they be regularly and moderately fed, and their stomachs not loaded with milk or other things. It is, therefore, necessary to prevent people from giving children sweetmeats, or food out of season : the feeding of the child ought to be left entirely to its mother.

#### OBSERVATION.

In Italy, mothers who take their sucklings to bed with them, use the following machine, which protects them from all injury and danger. It is 3 feet 2 inches long ; and the head-board 14 inches broad, and 13 inches high.\*—*Vide plate I.*

Q. Is it necessary to keep infants very warm ?

A. No. They must not be kept too warm.

Q. Is it good to cover their heads ?

A. By no means ; it causes humours to break out.†

#### OBSERVATION.

From the hour of birth, the head of a child ought to be kept uncovered. Mothers will find that, even in the coldest night, when they lay their hands on the infant's head, it is always warm.

Q. Children are eager to stare at every thing, particularly at the light ; what is to be observed with regard to this ?

A. They ought to be immediately turned so as to have the object in a direct line between them ; they should never be suffered to look at it sideways, as that would cause them to squint.

Q. By what means is the getting of teeth rendered difficult and dangerous ?

\* See Note 2.      † See Note 3.



A. By caps ; by keeping the head too warm ; by uncleanliness, and improper food.

OBSERVATION.

Nature herself causes pains at teething time, and the child is afterwards the cause of many more. It may not be amiss here to observe—first, that pains and agonies are the first instructors of man ; they teach him to avoid ills, and make him provident, compassionate, humane, and courageous. Secondly, natural bodily pain, in many instances, and particularly in childhood, is less hurtful to man and his happiness, than the anxiety and mortification of soul, which a child suffers that is irritated, put in a passion, or treated with contempt ; and it is as bad to frighten children.

Q. What is to be observed with regard to making children walk ?

A. They ought not to be taught to walk in strings, or go-carts, or be led by the arm ; they ought to be suffered to creep on the floor, till by degrees they learn to walk.

Q. How can we best assist children in speaking ?

A. We ought to pronounce the words to them very distinctly and slowly ; first single sounds, and then easy words.

OBSERVATION.

It is of the greatest importance that man, from his earliest infancy, should be accustomed to a distinct pronunciation.

Q. What are the principal reasons why one fourth of the number of children that come into the world, die in the course of the first two years ?

A. Want of fresh, pure air, uncleanliness, bad, indigestible food ; the anxiety and misery of parents are also among the causes of the death of so many children.

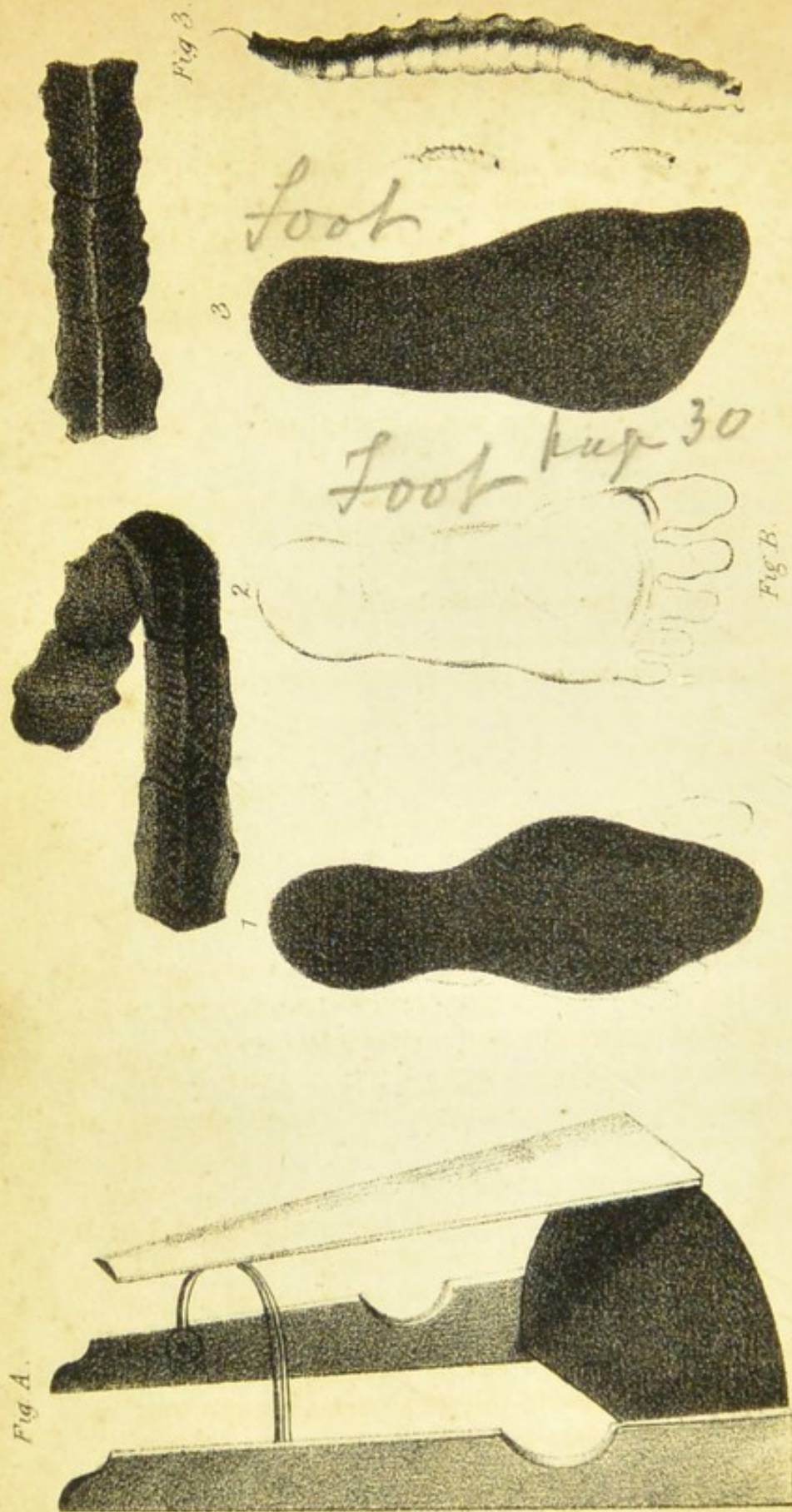






Fig 1.

Genus Tania





## CHAPTER V.

OF THE TREATMENT OF CHILDREN WITH RESPECT TO THEIR BODIES, FROM THE THIRD TO THE NINTH OR TWELFTH YEAR.

Q. If man is to grow up healthy and strong, how must he be educated ?

A. He ought to receive a liberal, judicious, and prudent education in his infancy, as well as in his youth.

Q. Is this of so much importance ?

A. Yes ; for on that depends his health, strength, and the happiness of his succeeding days.

Q. What is understood by a judicious education ?

A. That man be educated agreeably with the nature of his soul and body.

Q. What is, therefore, necessary to be known that we may give a judicious education to children ?

A. The nature of man and of his existence.

Q. What changes does man undergo during the first nine or twelve years of his existence ?

A. His body grows and acquires shape ; his soul learns the use of the body ; his senses, with regard to conception and perception, increase ; and he is joyful and happy in company with those of his own age.

Q. What changes does nature particularly attempt to effect during infancy ?

A. The formation of the body.

Q. Is the energy of the soul, and the accomplishment of man, promoted by the perfection of the body ?

A. Yes. The more perfect the body is the more perfect is the soul, and the more man is capable of promoting his own happiness, and that of his fellow-creatures.

Q. Can the mind know the nature and structure of the body without instruction and labour ?

A. No. The mind must for many years, during the whole period of infancy, study to acquire a thorough knowledge of the use of the body, composed of so many parts.



## OBSERVATION.

All voluntary actions of the body are caused by about 440 muscles, which the mind puts in motion by means of a still greater number of nerves; the mind, therefore, during infancy, when we are full of life and vigour, and that the body is alert, must endeavour to learn the use of these 440 muscles, so as judiciously to call forth, as occasion may require, the various motions and energies of the body.

Q. Are those motions or actions of any use to the body?

A. Yes. Its perfection is thereby promoted, and the whole body filled with life and vigour.

Q. Of what use are those sensations and ideas to the child which its soul conceives through the senses?

A. They are the foundation of its understanding; for the more the mind has seen, heard, and felt, and the more distinct its sensations are, the more sensible will man become.

Q. What particular purpose is answered by children living together?

A. They learn to know, to understand, and to love each other, and to lay a foundation for unanimity, mutual fondness, and the happiness of their lives.

Q. But if children live in society merry and happy together, can that have any influence upon them when they arrive at a state of maturity?

A. Yes. It contributes very much to make man spend his life according to his destination, in virtue and happiness.

Q. By what means are those wise designs of Nature promoted?

A. By activity; and gentle, though constant exercise both of the mind and body of children.

Q. Is such exercise compatible with the nature of children?

A. Yes. Children are full of vigour and activity, sense and feeling; they are joyful and merry, and desire to associate with other children.

## OBSERVATION.

From the twelfth to the eighteenth year the supple body



should be invigorated by exercise and play; the intuitive mind, by instruction and reflection, may lay up a store of knowledge, and man, whose infancy was passed in joy and happiness, learns to become virtuous in his youth; and he will become so if he has experienced the vicissitudes of fortune, her smiles and frowns, and shared his joys with others; if he firmly believes that all the descendants of Adam have an equal right to enjoy pleasures, and are equally obnoxious to pain; and that an all-wise good God created every thing good, and mankind, with a view of making them happy.

Q. What ought we further particularly to observe with respect to children?

A. That children be suffered to exercise their bodies and minds in company with each other in the open air.

#### OBSERVATION.

Parents ought not only to be present at the exercises and amusements of their children, and guard them from all dangers and injuries, but they ought also to encourage them, and lead them to all that is good and becoming, by their own virtuous example.

Q. Ought female children to receive the same education as boys in their infancy?

A. Yes; that they may at a future period enjoy the blessings of perfect health as well as men.

#### OBSERVATION.

The most pernicious consequences to the rising generation flow from separating female children, at the earliest period of their existence, from male children; from dressing them in a different manner, preventing them from taking the same kind of exercise, and compelling them to lead a more sedentary life.

Q. What are the consequences of preventing children from taking the necessary exercises before the ninth year?

A. Their growth is impeded, and they remain weak and sickly for life.

Q. What effect will it have upon children if they are kept to too hard work before the twelfth year?

A. They will very soon grow stiff, and old before their time.



## CHAPTER VI.

OF CLOTHES FIT TO BE WORN BY CHILDREN FROM THE BEGINNING OF THE THIRD TO THE END OF THE SEVENTH OR EIGHTH YEAR ; OR TILL IN EACH OF THE TWO JAWS, THE FOUR WEAK MILK TEETH IN FRONT ARE CHANGED FOR FOUR STRONG LASTING TEETH.

Q. By what means does man preserve, particularly in his infancy, the genial warmth of his body ?

A. By good wholesome food and bodily exercise.

Q. Is it necessary to keep children warm, and protect them against the inclemency of the weather, by many garments ?

A. No.

Q. Why so ?

A. That the body may grow healthy and strong, and be less liable to disease.

Q. How ought the heads of children to be kept ?

A. Clean and cool.

Q. Is it good to cover children's heads with caps and hats to keep them warm ?

A. No ; it is very bad ; the hair is a sufficient protection against cold.

Q. Are those artificial coverings dangerous and hurtful ?

A. Yes. Children are thereby rendered simple and stupid, breed vermin, become scurfy, full of humours, and troubled with aches in their heads, ears, and teeth.

Q. What kind of caps are, therefore, the most dangerous ?

A. The woollen, cotton, and fur caps.

Q. How, then, ought the heads of children to be kept ?

A. Boys as well as girls, ought to remain uncovered, winter or summer, by day and by night.

## OBSERVATION.

Children with sore heads ought to keep their heads cool, clean, and uncovered ; their hair cut, or repeatedly combed.



Q. Can the sun or air be prejudicial to the skin ?

A. No. If proper care be taken to keep the skin clean, they can do no harm.

Q. But will not children be scorched by the sun if exposed to its heat without being covered ?

A. No. Those that are accustomed from their infancy to go uncovered, will not be affected by the sun.

Q. How is the hair to be kept ?

A. It ought not to be combed backwards, or tied behind; but it ought to hang free round the head to protect it.

Q. Ought the hair to be often combed ?

A. Yes. It ought to be kept in order and combed repeatedly every day; which prevents vermin from settling in it, and induces cheerfulness and liveliness.

Q. Is it right that the collars of shirts and neckcloths should press upon its veins ?

A. No. The neck ought not to be squeezed; and, therefore, children ought to have their necks bare.

Q. How ought children's garments to be arranged ?

A. So as not to impede the free and easy progress of the body, or prevent the access of the fresh strengthening air to it; they, therefore, ought to be free, wide, and open.

Q. What further is requisite for this dress ?

A. It ought to be simple, clean, light, cool, cheap, and easy to put on or take off; it ought to be different in every respect from that of older or grown-up persons.

Q. What other reason is there for making this distinction between the dress of children and grown-up persons ?

A. To induce children to live with less restraint and greater happiness in the society of each other; to impress upon their minds an idea of their weak, helpless condition, in order thereby to check the too early ebullitions of the pride which leads children to ape the customs and actions of grown-up persons; a practice unbecoming at their age, and dangerous, perhaps, to their health and morals.

Q. How are the stockings of children to be made ?

A. They must be short, and not tied; it would, therefore, be advisable to let them only wear socks, to cover the feet in the shoes.

#### OBSERVATION.

Stockings that cover the knees may produce swellings in



them ; they ought, therefore, not to cover the knees, nor be worn with garters.

Q. Will not children find themselves too cold if their ankles are left bare ?

A. No. Cold, if they are accustomed to it, will not affect their ankles more than their arms. It will strengthen their limbs. In short, they will be kept sufficiently warm by the shirt and frock.

Q. What is the form of the human foot ?

A. At the toes it is broad, the heel small, and the inside of the foot is longer than the outside.—*See Fig. I.*

Q. Why has it this form ?

A. That man may walk and stand with ease and firmness, and move his body freely.

Q. How ought shoes, particularly those of children, to be formed ?

A. They ought to have the same form as the feet ; they, therefore, ought not to be made by one, but two lasts, as the shape of the feet may indicate.

#### OBSERVATION.

Each foot may be laid upon a sheet of paper, and its true shape drawn with a pencil, after which model, two separate lasts may be made.

From the following figures it appears clearly how shoes ought to be shaped. The middle, Fig. I, is the original shape of the sole of the left foot ; the first, Fig. III, shows how the sole of the left shoe ought to be formed ; and the last, Fig. II, shows clearly, that the shoes we usually wear, made on one last, do not at all fit.

Q. Ought the shoes of children to have heels ?

A. No. Heels cause the back bone to bend, and impede the free and easy motions of the body in walking and running.

#### OBSERVATION.

In order to obtain or preserve an upright posture or carriage of the body, and to run and jump easily and conveniently, shoes without heels must be worn.

When children are suffered to walk much, and are barefooted, they acquire an easy and steady pace. Little chil-



dren ought not to wear shoes before the eighteenth month ; if they do, the soles must be thin and soft, that they may learn to walk easily and well. Boots ought to be worn by children.

Q. How ought, therefore, children, male as well as female, to be dressed from the beginning of the third, to the end of the seventh year ?

A. Their heads and necks must be free and bare ; the body clothed with a wide shirt and frock, with short sleeves ; the feet covered only with a pair of socks to be worn in the shoes ; the shoes ought to be made without heels, and to fit well.

Q. What benefit will be derived from this kind of dress ?

A. The body will become healthier, stronger, taller, and more beautiful ; children will learn the best and most graceful attitudes ; and will feel themselves very well and happy in this simple and free garment.

#### OBSERVATION.

That by the general introduction of this simple and easy dress, the human race would be benefited, and rendered every way more accomplished, it cannot be doubted. It is, therefore, to be hoped that it will be generally adopted.

Q. How must the whole dress be kept ?

A. Orderly and clean. The shirt ought always to be clean, and the frock decent, not worn out, or torn to pieces, or unclean.

Q. When children appear always combed and washed, and in a clean shirt, and dressed from top to toe with decency and cleanliness, what is commonly concluded from it ?

A. That their parents are sensible, kind, and loving.

Q. And with respect to children themselves : the boy will become a worthy man, the girl an excellent wife ; and both imitate the example of their parents.

Q. Is it proper that grown-up persons, but, especially, is it proper that children should be dressed in an ostentatious manner, or show any pride in their attire ?

A. No. A simple, decent, clean, easy dress is the best.

Ecclesiasticus x. 7. Pride is hateful before God and man ; and by both doth one commit iniquity.



## OBSERVATION.

Stays and stiff jackets are inventions of the most pernicious nature ; they disfigure the beautiful and upright shape of a woman, and, instead of rendering her straight, as was formerly supposed, they make her crook-backed ; they injure the breasts and bowels ; obstruct the breathing and digestion ; hurt the breasts and nipples so much, that many mothers are prevented by their use from suckling their children ; many hence get cancers, and, at last, lose both health and life ; they in general destroy health, and render the delivery of women very difficult and dangerous, both to mother and child.

It is, therefore, the duty of parents, and especially of mothers, to banish from their houses and families both stays and jackets. Those girdles or sashes which press or constrain the belly are equally injurious ; and, in general, it would be a desirable thing, if the female dress were made to consist of a long, easy, and beautiful robe, and not of two parts joining or meeting at the hips.

Q. Is it advisable to wear clothes that have been worn by people who were infected by epidemic disorders, or who died thereof ; or to make dresses of them for children.

A. No ; it might cause an entire loss of health, and, perhaps, life.

## OBSERVATION.

Old clothes, particularly old woollen clothes, infected by unwholesome perspiration, are very injurious to health, and epidemic fevers are hence easily and frequently propagated.



*The following Chapters regard grown-up persons as much as children; those parts alluding to the latter only, will be pointed out in particular queries and answers.*

## CHAPTER VII.

## X OF AIR.

Q. WHAT ought to be the state of the air in which man liveth, and every moment breathes?

A. The air in which man liveth, and which he breathes, ought to be fresh, clear, and dry.

Q. Why ought it to be fresh, clear, and dry?

A. Because it tends to refresh us, and makes us healthy, composed, and serene; it encourages man to work cheerfully, excites appetite, improves health, and induces balmy sleep; in short, man finds himself exceedingly happy while he breathes fresh air.

Q. Does he feel equally as comfortable when he breathes bad, foul, and damp air?

A. No: in bad corrupted air man becomes weak, unhealthy, and irritable; loathsome and stupid; it often causes fevers and many dangerous maladies very difficult to cure.

Q. Is it very necessary that man should live in fresh air, in order to enjoy a perfect state of health?

A. As unavoidably necessary as eating and drinking: as clean water is to fishes.

Q. Why is it so?

A. Because the ambient air contains, as well as our food, vital principles, very peculiar ones, which cannot be dispensed with, or supplied by any thing except the air we breathe.

## OBSERVATION.

Even plants in the best soil, and beasts receiving the most wholesome food, will decay without good pure air.



Man, therefore, in particular, requires fresh air, that he may live and thrive, be healthy, sensible, serene, and happy.

Q. By what means is air corrupted ?

A. The air is corrupted in houses and rooms that are not sufficiently ventilated : beside, if in the vicinity of the habitations of man there be morasses, or stagnant waters, they are sufficient to corrupt the circumambient air.

Q. By what other means is air rendered obnoxious ?

A. Vapours arising from damp, foul things ; the breath and perspiration of many persons ; the smoke from lamps, tallow-candles, and snuffs ; the steam from ironing linen ; the exhalations that arise from combing wool, and from burning charcoal ; all tend, in a greater or lesser degree, to corrupt or deprave the atmosphere, and render it capable of impeding the action of the lungs, or inducing suffocation.

Q. What ought people to do that are much confined to rooms or chambers ?

A. They ought frequently to open their doors and windows, in order to dissipate corrupted air, and admit the cooling, gentle zephyrs.

Q. What other method can be devised to prevent the depravation of air in a room ?

A. By making two holes, one through the outer wall of the house, that will open into the room near the floor of it ; the other near the ceiling, through the opposite inner wall or partition ; the external atmosphere will enter at the hole near the floor, and dissipate the foul air through the aperture above.

Q. What else ought people to do, to obtain so desirable an end ?

A. They ought to keep their rooms or apartments clean, and in proper order ; nothing superfluous, or that can possibly corrupt the air, ought to be suffered in them.

Q. What are the signs by which you may know whether rooms be clean, and contain wholesome air.

A. When there are no cob-webs in the corners, or on the ceiling, of the room, nor straw, nor filth of any kind ; when the windows are clean and clear, and that no offensive smell, or unpleasant sensation, is experienced by a



person who enters it that has been just breathing the open air, we conclude that it is as it ought to be.

Q. Is it necessary for man to breathe fresh air when asleep?

A. Yes: it is necessary that he breathe good wholesome air, whether awake or asleep: curtains encompassing a bed, and narrow bedsteads, are therefore very unwholesome.

#### OBSERVATION.

To cover children's faces when they are asleep is a bad custom, for they are thereby deprived of fresh air.

Q. If people that are much confined to their rooms were careful to live always in fresh air, what would be the natural consequence?

A. Instead of being unhealthy, weak, and squalid, and labouring under catarrh, cold, and hoarseness, they would be much more healthy, content, and happy, and live longer.

#### OBSERVATION.

To bury the dead in or near towns and villages is very injurious and dangerous to the living.



## CHAPTER VIII.

## OF CLEANLINESS—WASHING AND BATHING.

Q. OF what use is cleanliness to man ?

A. It preserves his health and virtue ; it clears his understanding, and encourages him to activity ; it procures him the esteem of others ; and none but clean people can be really cheerful and happy.

Q. How far is uncleanness injurious to man ?

A. It corrupts his health and virtue ; it stupifies his mind, and he sinks into a lethargic state ; it deprives him of the esteem and love of others ; besides, unclean persons can never be really merry and happy.

Q. Does uncleanness cause any maladies ?

A. Yes. Uncleanness and bad air, which are commonly inseparable, produce fevers, which are not only very malignant and mortal, but contagious also.

## OBSERVATION.

Doctor Ferriar of Manchester, so renowned for his humanity, proves from the epidemical poison which commonly originates in the huts of misery, that not only virtue and charity, but also self-preservation, point out to the rich that it is their duty to relieve the poor.

Q. What impels man most to keep himself clean ?

A. The being accustomed from his infancy to cleanliness in his person, his dress, and habitation.

Q. What must be done to keep the body clean ?

A. It is not sufficient to wash the face, hands, and feet ; it is also necessary, more than once, and at short intervals, to wash the skin all over the body, and to bathe frequently.\*

Q. Is washing and bathing the whole body wholesome ?

A. Yes, it is very good ; for it begets cleanliness, health,

\* See Note 4.



strength, and ease ; and prevents catarrhs, rheumatism, palsy, the itch, and many other maladies.

#### OBSERVATION.

In Russia almost every house has its bath ; and it were to be wished that each village or town in every country contained one or more houses where people might be accommodated with cold and warm baths.

Q. Why is the keeping the body so clean of so great importance ?

A. Because the half of whatever man eats or drinks is evacuated by perspiration ; and if the skin is not kept clean, the pores are stopped, and perspiration consequently prevented, to the great injury of health.

Q. What rules are to be observed with respect to bathing ?

A. 1. That you be careful to bathe in places where you are not exposed to danger.

2. That you feel yourself thoroughly well and in good health, and that you be not over-heated at the time of going into the bath, which should not be immediately after a repast.

3. That you go not into the bath slowly, and by degrees, but plunge in all at once.

4. That after bathing you repose not, but walk about leisurely.

#### OBSERVATION.

It would be very advisable to compel scholars to bathe under the inspection of their masters, a certain number of times each week, from the beginning of May till the end of September.

Q. How often is it necessary to wash hands and face ?

A. In the morning, and going to rest ; before and after dinner and supper, and as often as they are by any means soiled.

#### OBSERVATION.

In each regular house there ought to be constantly ready a wash-hand basin, and clear cold water for that purpose.



Q. Is it not necessary after meals to clean or wash the mouth?\*

A. Yes. Immediately after each repast, the mouth ought to be cleansed with cold water; the gums and teeth are thus preserved sound and good, and the tooth-ache prevented.

Q. Ought not children to be washed and combed before they go to school?

A. Yes. Children ought, morning and evening, before they go to school, to be combed and washed; that, being thus rendered comfortable and cheerful, they may with greater ease and pleasure, advance in the paths of science and virtue.

Q. What ought you particularly to do when you wash yourself?

A. We ought always to immerse our faces in the water, and keep them so for a little time.

#### OBSERVATION.

Thus we accustom ourselves to restrain our breath, which in case of danger in the water will be found of great use. And if we open our eyes in the water, and clean the mouth, it will prove beneficial to both, and prevent tooth-ache.

Q. As it is necessary that the body should be kept clean from the earliest infancy, and as little children are not capable of washing and attending themselves, what duty is therefore imposed upon parents?

A. It is as much their duty to wash their children, as it is to feed and clothe them; for children that are often washed improve in health; their clothes are always clean; cleanliness becomes familiar to them; and they grow up virtuous, polite, and happy.

Q. Do little children like to be bathed and washed?

A. In the beginning they are frightened, and cry; but if they be regularly and frequently bathed, and often washed every day, they at last take delight in it.

Q. Is it sufficient that man keep his body clean?

A. No. He must also keep his clothes clean, and all

\* See Note 5.



that is about him ; his apartments, beds, and furniture : and they ought also to be kept in order.

Q. What benefit doth the whole household derive from such order and cleanliness ?

A. It tends to preserve their health ; makes all work easy, and renders life joyous and happy.



## CHAPTER IX.

## OF FOOD.

Q. WHY doth man eat ?

A. To satisfy the cravings of hunger, to preserve life, and to nourish the body.

Q. What kind of food doth man generally partake of ?

A. Bread, vegetables, fruit, milk, fish, and meat.

Q. Which of these yields the greatest nourishment ?

A. Meat, or animal food, which is more nourishing than vegetables.

Q. Of what ought our meals to consist ?

A. Chiefly of vegetables.

## OBSERVATION.

That man was not designed to live on meat, or on vegetables only, is evident from the construction of his teeth, his stomach, and bowels. Living upon animal food only, causes putrefaction of the blood; and vegetables by themselves, do not sufficiently nourish or strengthen the body.

Q. What gives the most delicious relish to food ?

A. Hunger, and the thorough mastication of the food.

Q. What tends most to promote hunger and digestion ?

A. Bodily exercise, especially in the open air.

Q. Is it best to eat simple food ?

A. Yes. It is destructive of health to partake of many different dishes, or of such as are prepared with much art; for they are very difficult of digestion, and afford bad and unwholesome nourishment.

Q. What is particularly to be observed at meals ?

A. Order and moderation; and that the food be well masticated, in order that it may the more readily be converted into chyle.

## OBSERVATION.

By mastication the teeth are kept sound and fast. It is,



therefore, necessary to make children chew on both sides of the mouth.

Q. What does Sirach say of frugality ?

A. Ecclesiasticus xxxi. 20. He says, " Sound sleep cometh of moderate eating ; he riseth early, and his wits are with him : but the pains of watching, and choler, and pangs of the belly, are with an insatiable man."

Q. If our food be not sufficiently masticated and converted into a pap-like substance, what is the consequence ?

A. It cannot be digested sufficiently ; and undigested food yields bad nourishment to the body—over-loads the stomach, and induces a weak, morbid state of the system.

Q. Is it good to drink much at meals ?

A. No. Too much drink renders our food too fluid.

Q. Does fluid aliment afford wholesome and strong nourishment ?

A. No. Food of whatever kind, in order that it may afford proper nourishment, ought to be substantial : it is, therefore, necessary to eat bread with fluid aliment.

#### OBSERVATION.

Even the milk which the child sucks must first curdle in the stomach before it can give any nourishment to the body.

Q. As bread is our principal food, what ought to be its appropriate qualities ?

A. It ought to be made from good corn, and well baked.

#### OBSERVATION.

Westphalian pumpernickel, or black bread, is, for healthy, strong, hard labouring people, a good wholesome kind of food ; but it is too heavy for children, aged persons, or such as lead a sedentary life, and yields them but little nourishment.

Q. What must we have to be able to bake good bread ?

A. 1. Clean and dry corn, that is not damp, musty, or in a state of vegetation.

2. Flour that has not fermented in the sacks or boxes.

3. Too much, or too hard water, is not to be used ; but soft water may be employed for making the dough, which requires to be well kneaded.

4. Fresh, good yeast is required.



5. The leavened dough ought to swell considerably in a temperate heat.

6. The oven ought not to be too cold, nor too hot.

Q. If rye be mixed with impurities and tare seed, will it make wholesome bread?

A. No. It is very dangerous to eat such bread; for it induces sickness and anxiety; and frequently begets contagious and putrid fevers, which lay waste whole provinces.

Q. Is hot bread or cakes wholesome?

A. No. They are very unwholesome: they may cause sickness and death.

Q. Potatoes, when eaten in moderation, are good and wholesome; but do they prove salutary when eaten in too great a quantity, and every day?

A. No. Potatoes eaten every day and in too great a quantity, are not very wholesome; they afford scanty nourishment.

#### OBSERVATION.

Potatoes, when eaten too often, or immoderately, prove hurtful to health, and to the mental faculties.

Q. What is further to be observed with respect to potatoes?

A. Potatoes ought not to be eaten before they are quite ripe; and care should be taken that they do not grow musty, or shoot out in damp cellars—such potatoes are bad.

Q. Are ripe fruits and acid substances wholesome?

A. Yes. They cleanse and refresh the body.

#### OBSERVATION.

With respect to the kernels of fruits, children ought to be cautioned not to swallow them, as they may cause an obstruction in the bowels and consequent death.

Q. Are fat meats wholesome? and is it good to give much bread and butter to children?

A. No; it is not good. Bread and butter, like all fat aliments, are difficult of digestion; they are prejudicial to health, generate a great deal of bile, and produce worms.

#### OBSERVATION.

All children, without exception, have naturally worms in



their bowels ; but those worms are only hurtful and dangerous, when from bad, indigestible food, and want of exercise, the bowels are overloaded with slime, and disposed to the generation of worms.\*

Q. Are astringent, salted, or high-seasoned viands wholesome ?

A. No. They are unwholesome ; and children ought not to eat astringent, pickled, or high-seasoned meats.

Q. What is in general to be observed with respect to the feeding of children ?

A. They ought to be fed regularly every day at stated times, and often ; their food ought to be mild and nourishing, that they may grow and thrive well.

Q. Is it good to give children dainties, cakes, or sweetmeats ?

A. No. Children are thereby rendered too fond of their bellies, become gluttons, and degenerate from the dignity of their nature.

#### OBSERVATION.

Sweetmeats, and all the toys of children, are commonly covered with poisonous paint ; they, therefore, ought to be prohibited.

Q. What is the state of the kitchen of a good orderly wife or housekeeper ?

A. The kitchen furniture is always kept clean by scouring and washing ; after any part of it has been used, it is immediately washed, and dried with a clean cloth, and put up in its proper place ; and when it is wanted again, it is first of all dusted and rubbed well.

Q. What is especially to be observed with respect to the preparing and keeping of victuals ?

A. The greatest cleanliness ; and the eatables ought neither to be prepared, nor kept in improper vessels, or such as can communicate to them any poisonous quality.

Q. Ought every thing first to be washed before it is boiled or roasted ?

A. Yes. Every kind of food, whether animal or vegetable, ought to be well washed before it is boiled or roasted ;

\* See Note 6.



and vegetables especially require washing to remove mildew or insects.

Q. What sort of kitchen utensils may become noxious?

A. Those of copper, which are not perfectly tinned, and earthen vessels which are glazed with too much lead.

#### OBSERVATION.

Earthen vessels receive a varnish of sand and prepared lead; if too much of the latter be used, or if the varnish be not well burnt, acids will dissolve the lead, and render it capable of communicating a deleterious impregnation to food.

Q. If acescent food, especially, be prepared and kept, or suffered to cool, in such vessels, what are the consequences?

A. It dissolves and mixes with part of the lead or copper, and so becomes capable, if eaten, of producing gradual loss of health: sudden death may be the unavoidable consequence.

Q. What is, therefore, to be observed with respect to those vessels?

A. Those of copper ought to be well tinned; the earthen ones must have a very hard and durable varnish, consisting of but little lead, and ought to be well seasoned by keeping them a proper time immersed in boiling water, in which pot-ashes have been dissolved; and neither the copper nor the earthen vessels ought to be used for cooling, or keeping victuals.

Q. Are pewter vessels also dangerous in this respect?

A. They are. Pewter is often mixed with a great deal of lead; and therefore victuals ought to be kept in vessels of this kind.

Q. What kind of water ought to be used for the boiling of victuals?

A. Not only for boiling victuals, but for baking and brewing, clean soft water is required, in which dry peas can be boiled soft.



## CHAPTER X.

## OF DRINK.

Q. For what purpose is it necessary that man should drink ?

A. To quench his thirst ; but not to gratify his palate, or to strengthen his stomach, or with a view hence to derive nourishment ; for all such notions are wrong, and against nature.

Q. What kind of beverage therefore is the most proper ?

A. Cold Water.

Q. What advantage do we derive from drinking cold water ?

A. Cold water cools, thins, and clears the blood ; it keeps the stomach, bowels, head, and nerves in order, and makes man tranquil, serene, and cheerful.

Q. What is it that gives to cold water an agreeable taste, and renders it nourishing ?

A. Bodily exercise in the open air not only induces thirst, and a desire for water, but also renders it necessary.

## OBSERVATION.

By the movement of the body, water is caused to mix thoroughly with the blood, whose viscid, sharp, and acrid humours it expels from the body.

Q. Do people commonly drink a sufficient quantity of cold water ?

A. No : many, from not taking sufficient exercise in the open air, and from drinking frequently large quantities of warm drink, lose all real thirst ; and, from not drinking a sufficient quantity of cold water, their blood remains viscid, acrid, and impure.

## OBSERVATION.

Females, in particular, that are much confined at home, drink a deal of coffee and tea, but do not drink enough of cold water.



Q. May we drink any water without distinction ?

A. No : we ought not to drink stagnant, unclean, muddy, or putrefied water.

#### OBSERVATION.

If one be under the unavoidable necessity of drinking bad or foul water, a little vinegar may be mixed with it, which is the best corrector of it.

Q. What kind of water is best for drinking ?

A. Pure, clear water, without taste, smell, or colour ; —water in which soap will readily dissolve, and peas readily soften, if boiled in it.

#### OBSERVATION.

The old Romans made aqueducts of such a length, that five, ten, or more hours, would be consumed in walking from one extremity to the other of some of them ; and they did so in order to furnish populous places with good wholesome water for drinking.

Q. Is beer a wholesome beverage ?

A. Light, well-brewed beer is not injurious to the health of grown-up persons ; though certainly good water is much better, and more wholesome.

#### OBSERVATION.

Children, by drinking beer, lose the desire of drinking water, and so steal into the habit of drinking too much coffee, tea, wine, and brandy.

Q. Are warm drinks, such as coffee, tea, &c. wholesome ?

A. No : the only wholesome beverage is cold water ; all warm drinks weaken the stomach and body ; they do not cleanse the bowels, nor purify the blood, and are, therefore, unwholesome and hurtful to health.

Q. Why are people, particularly females, so fond of tea and coffee ?

A. Because, for want of exercise, they have no natural or real thirst ; and because they have been used to them from their infancy.

#### OBSERVATION.

If water were the only drink of man, both his health and



fortune would be improved. If what is spent on fluids that are hurtful to life were appropriated to the purchase of nourishing food, and other necessities of life, the lot of humankind would be meliorated, and we should live longer, and be healthier, stronger, and happier.

Q. What, then, ought to be the only beverage for children ?

A. Pure, good cold water ought to be the only drink of children and young folks ; who ought to be prohibited from drinking beer, coffee, tea, or other warm liquors.

Q. What advantage do children and young persons derive from drinking cold water only ?

A. They grow, and are nourished, much better, and become healthier, stronger, and happier.



## CHAPTER XI.

## OF WINE.

Q. Is wine wholesome, when drank often, or as a common beverage?

A. No: it is not. Wine is very hurtful to the health the intellects, and the happiness of man.

Q. Wine, as a medical potion, comforts the sick, and strengthens the weak; but does it afford any real strength or nourishment to the healthy?\*

A. No: it only over-heats, without procuring real strength; for it cannot be converted into good blood, flesh, or bone.

Q. Does wine contribute to the digestion of our meals?

A. No: it does not. Those that drink water eat with a better appetite, and digest better, than those that drink wine.

Q. What consequences ensue from drinking wine continually?

A. The tongue loses its delicacy of taste, and rejects water and mild simple food; the stomach grows cold and loses its natural vigour, and man, under the false idea of giving warmth to his stomach, gains by degrees a passion for drinking, which leads him at last to habitual ebriety.

## OBSERVATION.

Young and bad wines, full of impure, earthy parts, and volatile spirit, are much more hurtful than old wines of a good vintage. Wine adulterated with any preparation of lead, as sugar of lead, white lead, &c. is poison.

Q. May children drink wine, punch, or other spirituous intoxicating liquors?

A. No: children and young persons ought not to drink wine, or any other spirituous liquors; for they are hurtful to health, impede growth, obscure reason, and lay a foundation for wretchedness hereafter.

Q. Does wine expel worms?

A. No: it does not.

\* See Note 7.



## CHAPTER XII.

## OF BRANDY.

## OBSERVATION.

VEGETATION has united and incorporated in the corn, by means of air and water, spirituous and earthy elements, which combined form a sweet and nourishing substance ; if this intimate junction is destroyed or resolved by fermentation, the spirituous part is separated from the earthy, which is then deprived of its body, and is no longer a sweet nourishing substance, it is fiery, and destroys like fire.

Q. Is brandy a good liquor ?

A. No.

## ADDRESS TO CHILDREN.

Children, brandy is a bad liquor. A few hundred years ago brandy was not known among us. About 1000 years ago, the destructive art of distilling spirits of wine from wine was found out ; and 300 years ago, brandy was first distilled from corn. In the beginning it was considered as physic. It did not, however, gain any degree of general request till the close of the last century, or rather till within the last thirty years, that it has become an universal beverage, to the great detriment of mankind.

Our forefathers in former times, who had no idea of brandy, were quite different people from what we are ; they were much more healthy and strong. Brandy, whether drank by itself or at meals, cannot be converted into blood, flesh, or bone ; consequently, it cannot give health or strength, nor does it promote digestion : it only makes one unhealthy, stupid, lazy, and weak. It is, therefore, a downright falsehood, that brandy, as a common beverage, is useful, good, and necessary. Our forefathers lived without it. And as experience teaches us, that even the most moderate and most reasonable give way to the bane-



ful custom of drinking every day more and more brandy, it is much better, in order to avoid temptation, to drink none at all; for, believe me, children, brandy deprives every body who addicts himself to the immoderate and daily use of it—of health, reason, and virtue. It impels us to quit our house and home, to abandon our wives and children, and entails on its wretched votaries misery and disease, which may descend to the third and fourth generation.

It has been observed in all countries, in England, Scotland, Sweden, North America, and Germany, that in proportion to the quantity of brandy consumed, were the evils which health, strength, reason, virtue, industry, prosperity, domestic and matrimonial felicity, the education of children, humanity and the life of man had to encounter.

It was this that induced an Indian in North America, of the name of Lackawanna, to say, that the brandy which had been introduced amongst the Indians by the English, tended to corrupt mankind and destroy humanity. “They have given us (said he) brandy! and who has given it to them (Europeans), who else but an evil spirit!”

Q. Tell me, therefore, dear children, may children drink brandy?

A. No, by no means; children must not only abstain from brandy, but also from rum, gin, and all other spirituous liquors.

#### ADMONITION.

It is true that children must not drink brandy not even a single drop, for brandy deprives children of their health and reason, of their virtue and happiness. When, therefore, dear children, your parents, who, perhaps, do not know that brandy corrupts both body and soul, shall offer you any spirituous liquor, do not accept it, do not drink it.

Q. Tell me now, what becomes of children that drink spirituous liquors?

A. Children and young persons who drink brandy, or other spirituous liquors, become unhealthy, crippled, stupid, rude, lazy, vicious, and depraved, both as to mind and body.



Q. Does brandy, or any other spirituous liquor, destroy, or prevent, the generation of worms in the bowels?

A. No.

#### EXHORTATION.

Fathers and mothers, if you wish to obtain the blessing of the Almighty in an especial manner—if you aspire after celestial rewards, take care not to suffer your children to drink of spirituous liquors a single drop.



## CHAPTER XIII.

## OF TOBACCO.

Q. Is the smoking of tobacco good ?

A. No ; it is not good, for much of the saliva so necessary for digestion is thereby lost, and it is hurtful to health, to the teeth, and to the organs of taste.\*

## OBSERVATION.

The chewing of tobacco is equally pernicious.

Q. May children and young people smoke tobacco ?

A. No ; children and youth must not smoke at all.

Q. Is the taking of snuff proper ?

A. No ; it is a very bad custom, as the nose through which man breathes is stuffed up by it, the important sense of smell destroyed, and uncleanness and want of health induced by its use.

\* See Note 8.



## CHAPTER XIV.

## OF EXERCISE AND REST.

Q. WHAT advantage does man derive from bodily exercise, activity, and labour?

A. Bodily exercise, particularly in the open air, creates hunger and thirst, helps the digestion of our food, and makes it nourishing; it purifies the blood, keeps the bowels healthy, and causes rest and sound sleep.

Ecclesiasticus xxx. 18. "To labour and to be content with that a man hath is a sweet life."

Q. Can any body remain in a good state of health, without much bodily exercise?

A. No; God has given to man, not without a wise design, a body, hands, and feet: he is to make use of them and labour, and through labour to preserve life and health, to promote his own happiness, and that of his fellow-creatures.

Q. But cannot exercise and labour hurt a man?

A. By all means: if man exceeds the bounds of reason, and of his natural powers, he may hurt himself.

## OBSERVATION.

It is computed that, in Germany, 300,000 persons of the male sex are afflicted with ruptures.—What is the reason that people are so liable to ruptures? I believe I have proved satisfactorily, that ruptures will be far less frequent, will scarcely be met with, when the muscles and nerves of the abdomen are strengthened by unrestrained exercise and fresh air. If he works continually and too hard, his body will be debilitated and worn out, or a rupture may be the fatal consequence.

Q. Is it good to take much exercise, or work hard immediately before or after dinner?

A. No; a little rest before and after dinner is necessary,



and promotes appetite and digestion, recruits the powers of the body, and fits it for future work.

Q. What kind of exercise is proper for children ?

A. Gentle and continued exercise in the open air, during the greater part of the day.

Q. How doth man become very active and industrious ?

A. By being left during his childhood to exercise, unrestrained, with other children, and by being carefully encouraged to activity, assiduity, industry, and thinking ; by being taught to do such work as is proportioned to the strength of his body, and accustomed to do every thing with due consideration and in time, and not to postpone till to-morrow, what should be done to-day.

Ecclesiastes ix. 10. "Whatsoever thy hand findeth to do, do it with thy might ; for there is no work, nor device, nor knowledge, nor wisdom, in the grave, whither thou goest."

Q. What advantages arise from accustoming children to moderate or easy work ?

A. It renders them, when grown up, useful to themselves and to their fellow-creatures ; it will prevent them from mixing in bad company, and will banish want and misery from their doors.

Prov. x. 4. "He becometh poor that dealeth with a slack hand, but the hand of the diligent maketh rich."

Q. After man has laboured, and finished his work, what then doth he do ?

A. He rests himself, and looks with pleasure upon the fruits of his industry.

Q. But would he rest as well if he had not laboured, or had not been industrious ?

A. No : peace, rest, and joy, are the exclusive enjoyments of him who has done his duty, who has worked and promoted his own, and the happiness of his fellow-creatures.

#### ADMONITION, OR ADDRESS TO CHILDREN.

Dear children ! he who owes his birth and education to healthy, strong, sensible, virtuous, and industrious parents, who, from his infancy, has constantly inspired fresh, pure, and dry air ; whose skin and apparel are



always kept clean : who, with regard to his meals, observes moderation and order, and drinks no brandy or other spirituous liquors ; whose habitation is orderly, clean, dry, and lightsome ; who has been accustomed from his infancy to order and cleanliness, to assiduity and industry, and whose reason and virtue have been fortified and improved in his youth by instruction and example ; who fears God, loves mankind, and does justice ; who works six days out of seven for the maintenance of his wife and children :—he only enjoys terrestrial bliss ; he is truly happy, and may, anticipating the joys of eternal felicity, brave all the horrors of death.



## CHAPTER XV.

## OF SLEEP.

Q. For what purpose does man go to sleep ?

A. To rest himself after exercise and labour, and regain the strength of his body, and the faculties of his mind.

Q. How do the healthy rest ?

A. Their rest is quiet, refreshing, and without dreams.

Q. When especially do the healthy enjoy a quiet and refreshing sleep ?

A. When their bodies are wearied by much exercise in the open air ; when they have satisfied hunger, and that their minds enjoy contentment and peace.

Q. Doth much depend upon a sound sleep ?

A. Yes : man after a night's balmy sleep, awakes with cheerfulness, finds himself quite happy, full of vigour and desire for labour.

Q. What time is particularly appropriated for sleep ?

A. The night ; for in the day-time we do not sleep so well.

## OBSERVATION.

Little children, and people who are either sick or enfeebled, or very much tired, and the old and infirm, are to be excepted, as they very often sleep in the day-time.

Q. Ought children to sleep much ?

A. Yes : children and young people that are constantly in motion, ought to sleep more than adults.

Q. Cannot we sleep too much, and so injure our health ?

A. Yes : when we have not had much exercise in the open air, and consequently are not tired, and when we, during our sleep, breathe corrupted air, or lie in warm feather-beds, we find ourselves after some time lazy, stupid, and unhealthy.

Q. Ought we to sleep in cool, fresh, and clear air.

A. Yes : and it, therefore, behoves us not to sleep in



warm sitting rooms, but in cold, lofty, roomy chambers, that have fresh air; whose windows are kept open in the day time, and contain beds without curtains, or curtains not to be drawn.

Q. Is it wholesome to lay on, or under feather-beds?

A. No: it is very unwholesome. Feather-beds by their warmth, by the noxious, impure, putrid exhalations which they attract, render the body weak and unhealthy; and besides, are the cause of catarrhs, head, tooth, and ear ache, of rheumatism, and of many other maladies.

Q. What kind of bed is fittest for grown-up persons?

A. Mattresses stuffed with horse-hair, or straw, covered with a blanket or quilt. But when people sleep in feather-beds, they ought to air and beat them well in summer time once a week, and in winter, once a fortnight, and often change linen.

Q. What sort of bedding is proper for children?

A. Mattresses stuffed with hair or straw, or moss well dried, which requires often to be changed.

Q. Why ought they to lie on such beds?

A. Because it will contribute to the health, and promote the strength of children; and because feather-beds are more injurious to the health of children than to that of adults.

Q. What is further to be observed with respect to sleep?

A. We ought not to lie down till we are tired, nor remain in bed after we wake in the morning.

Q. Ought the head and breast to be placed higher in the bed than any other part of the body?

A. No: nor ought we to lie on our backs, but alternately on either side, in a somewhat bended position, taking care not to fold our arms round our heads.

Q. Is it proper for children to sleep in the same bed with grown-up persons, or ought several children to lie together?

A. No: such practices are very hurtful; for the breath and exhalations consist of noxious vapours: it is, therefore, advisable for every child, and every grown-up person to lie alone, in order to enjoy sound sleep.

Q. What is to be done with beds in which sick persons have lain?



A. They are for many days to be well aired and beat; but if the disease has been contagious, the bed ought to be burnt, or buried deep in the ground.

#### OBSERVATION.

An English army-physician, Dr. Brocklesby, says that a bed on which a person died of the quinsy, was the cause of the death of two others that slept in it after him. When travelling, one ought to be very careful and particular with respect to beds.\*

\* See Note 9.



## CHAPTER XVI.

## OF THE HABITATIONS OF MAN.

Q. WHAT advantages ought our habitations and apartments to possess ?

A. They ought to be very lightsome and airy.

Q. When habitations are dark, fusty and damp, what effect do they produce on those that live in them ?

A. People in such habitations are rendered unhealthy and weak, paralytic and sick ; they grow stupid, simple, ill-natured, and miserable ; and little children get pale in damp rooms ; they swell, become consumptive and die.

Q. When may rooms be considered as fusty and damp ?

A. When they lie deep in the ground ; when the walls and the floor are wet or damp, and when the furniture or other things grow mouldy.

Q. How can such rooms be improved ?

A. By the repeated and daily admission of fresh air into them ; or, what is still better, by holes made in the two opposite walls of the house, one near the floor, through which the external atmosphere constantly passes, and expels the foul air through the hole made near the ceiling.

Q. Ought rooms and chambers to be lofty and spacious ?

A. Yes : the more lofty and spacious they are, the less liable will the air be to corruption.

Q. How often ought they to be swept and cleaned ?

A. All inhabited rooms and chambers ought to be cleared every day.

Q. Why so often ?

A. Because it is wholesome and good ; and because decent people like to live in clean apartments.

Q. But is it good to sit in very warm rooms in winter time ?

A. No : very warm rooms are very unwholesome, and make people weak, simple, stupid, and sick.

Q. Is it advisable to warm ourselves over charcoal, or to sit in rooms where it is burning ?



A. No : its vapours produce a great depression of spirits, and sometimes suffocate people.

OBSERVATION.

Those little stoves used by women in Germany and Holland to put their feet on, are very dangerous.

Q. Is it wholesome to dry clothes in rooms, or boil water in ovens, where the steam cannot ascend as in a chimney ?

A. No : damp vapours corrupt the air very much, and are therefore unwholesome and injurious to health.

Q. If one be very much chilled in winter, may he immediately approach the fire, or a hot stove ?\*

A. No ; for chilblains are produced by exposure to heat after intense cold.

OBSERVATION.

Dipping the hands often in hot water, and sudden transitions from heat to cold, and from cold to heat, produce ulcers on the fingers, called in Germany " the worm."

Q. When a limb, as an arm or leg, is frost-bitten, what is best to be done ?

A. In such a case if the patient enters a warm room, or approaches the fire, the loss of the arm or leg will be the consequence ; the part affected should be kept in cold water, in which snow or ice was dissolved, till numbness be removed, till life and sensation are restored.

OBSERVATION.

In cold winter days, if we travel or walk about in the country, it is necessary that we be particularly careful not to drink any brandy or other spirituous liquor, as it only tends to induce weariness and sleep, the more to be dreaded as it may last till death, through inanition, is produced.

Q. What ought to be the state of rooms in which children live ?

A. Their apartments ought to be lightsome and airy, and be kept orderly and clean ; for in such rooms children will thrive surprisingly, and become healthy, strong, and cheerful.

\* See Note 10.



## CHAPTER XVII.

## OF SCHOOLS.

Q. WHAT ought to be the site and state of a school-house ?

A. It ought to be built in a free, open, and high situation ; be dry, roomy, and in a good habitable condition.

Q. What ought to be the state of school-rooms ?

A. They ought to be lightsome, airy, large, high, and dry, having floors above the surface of the earth, not made of clay or stone, but of deal.

Q. Are narrow, low, damp, dirty, dark rooms, which exclude the fresh air, unwholesome ?

A. Yes : they are very unwholesome ;—oppose the studies and intellectual improvement of children, and corrupt their morals.

## OBSERVATION.

If men were sensible of these truths they would feel an irresistible impulse to unite, like so many bees in a hive, for the laudable purpose of promoting the general good—of erecting and establishing for the benefit of their dear children, healthy and spacious school-houses. They would be indemnified tenfold for their expenses, by the benign influence such institutions would have in promoting the happiness of their offspring.

Q. How ought school-rooms to be kept ?

A. Orderly and clean, light and airy ; taking care to open the doors and windows several times a day, in winter as well as in summer, for the admission of pure air, and not to keep too great fires in them.



## CHAPTER XVIII.

## OF THUNDER AND LIGHTNING.

Q. How are people to conduct themselves in thunder-storms, when they are in the field ?

A. They ought not to run, or trot, or gallop, or stand still, but keep on walking or riding quietly, slowly, and without fear.

## OBSERVATION.

Here the schoolmaster is to explain to the children the nature and causes of thunder and lightning, in order to prevent those fears and false impressions which are made upon the human mind, when children are suffered to form erroneous ideas of such phenomena.

Herds or flocks in thunder-storms ought not to be driven, hunted, or over-heated, or suffered to stand still, or assemble close together ; they ought to be separated, and divided into small numbers ; and people should take care not to come too near to them.

Q. May one shelter himself in a tempest under a tree ?

A. No : it is very dangerous. Trees, and vapours which encompass them, attract the lightning, and persons standing under them are in the utmost danger of their lives.

Q. You are right, children, in observing that when thunder and lightning prevail, one should not take shelter under trees ; and the higher the tree, the greater the danger ; but, what precautions are people to take when at home during a thunder-tempest ?

A. They are, when the tempest is still at a distance, to open the doors and windows of their rooms, chambers, and stables, in order to expel all vapours, and fill them with fresh air. When the tempest draws near, the windows are to be shut, and the doors left open, that fresh air may be admitted, avoiding carefully a free stream of air. They are further to keep at a proper distance from walls, chimneys, and ovens, and from all iron and metal, in particular from long iron rods or wires ; remaining, as to any thing else, composed and without fear.



## CHAPTER XIX.

## OF OVER-HEATING OURSELVES, AND CATCHING COLD.

Q. If, through violent bodily exercise, labour, running, or dancing, we have over-heated ourselves, what ought we not to do ?

A. 1. We ought not immediately to sit down to rest ourselves.

2. Drinking immediately after such violent exercise any thing cold, or even brandy or other spirituous liquor, is highly improper.

3. We ought not to expose our bare skin to the cold air.

4. We ought not to go into the cold bath : when thoroughly wet from rain it is proper to walk about.

5. We ought not to sit down on the ground, or on the grass ; and we should be particularly careful not to fall asleep, otherwise ill health, sickness, lameness, and consumption will be the fatal consequences.

Q. What are we to attend to when we go home from labour ?

A. Those that are over-heated are by very slow degrees to suffer themselves to cool and enjoy rest ; and dry and clean shirts and clothes are to be substituted for those that have been rendered humid by sweat. When cool and composed, we may generally extinguish thirst.

Q. If people during work are very thirsty, may they not refresh themselves with some cold beverage ?

A. Yes, they may ; but they must not drink too much at once, nor leave off working to rest themselves, but continue their labour, else they will take cold and fall sick.

Q. What are those to do who have caught cold from cold and damp wind and weather ? \*

A. They are to drink a few cups of boiled water mixed

\* See Note 10.



with a fourth part of vinegar, put on warm clothes, and by exercise, force the blood back to the skin. When the cold is violent, they are to bathe their feet in warm water, drink vinegar, and go to bed.

Q. What are we to do if our feet or bodies be wet and cold ?

A. We are to take off the wet stockings or clothes, lest they should cause a catarrh, the palsy, or rheumatism.

Q. But what else ought to be done ?

A. As soon as a person under such circumstances returns home, he ought not only to take off the wet clothes, but wash and dry his skin well, and put on warm clothes.

Q. How do people by slow degrees get catarrhs, palsy, rheumatism, and other maladies ?

A. By the obstruction of the perspiration, or rather of the transpiration, of the whole, or a part, of the body, occasioned by want of exercise, by wet or damp rooms or chambers, feather-beds, wet clothes, and exposure to cold air.

Q. Point out to me, by way of elucidation, how a person may catch cold.

A. When a person, for instance, leans with his right or left arm against a damp wall, or, what is still worse, falls asleep in that position, or that the part is exposed to a stream of air, that part will be attacked by rheumatism or palsy, or catarrh will be produced.

Q. How may catarrhs and rheumatism be prevented ?

A. They may be prevented by keeping the skin constantly cool, clean, and strong ; by exposing it to pure air ; by washing and bathing when the body is not kept too warm by unnecessary clothes, and by much exercise in the open air.



## CHAPTER XX.

OF THE PRESERVATION OF CERTAIN PARTS OF THE  
HUMAN BODY.

Q. WHICH are the parts of the human body that man should take particular care to preserve in a good state of health ?

A. The organs of his five senses.

Q. By what means are the organs of the sight, the hearing, and smelling, preserved healthy, improved, and strengthened ?

A. By free, pure air, and very frequent exercise in the open air, rather than in confined places.

Q. What is in general very hurtful to those three senses ?

A. The unnecessary care of keeping the head warm by caps or other coverings, whereby the blood is drawn towards that part, evaporation obstructed, and catarrhs and ulcers caused, the matter of which being absorbed, occasions blindness and deafness.

Q. How may the eyes be injured ?

A. By dazzling, irregular, and transient lights ; by objects brought too near the sight, or viewed sideways ; by corrupted air, dust, smoke, damp vapours, fumes of oil or candles ; by the heat of ovens, and reading without sufficient light.

Q. What hurts the hearing ?

A. Strong, sharp, unexpected sounds or reports, corrupted air, feather beds, dust, too much mucus in the nose, and pressure on the external ear, forcing it too near the head.

## OBSERVATION.

That the sense of hearing may be quick and distinct, the external ear should project sufficiently from the head and



be moveable, but this is prevented by the close caps which young children wear.

Q. How are the organs of smell injured ?

A. By corrupted air ; by strong and foul odours ; by mucus in the nose, or snuff obstructing the nostrils, and obliging us to breathe through the mouth.

Q. By what means is the organ of taste preserved ?

A. By exercise ; by the use of water, and bland aliment.

Q. How may the organ of feeling be preserved ?

A. By the exercise of the faculty of feeling ; by the exercise of the body, and by cleanliness.

Q. Are the common exercises of the senses sufficient to render them and reason perfect ?

A. No : the senses require to be incessantly exercised that they may become perfect and capable of directing and upholding us amidst the wanderings of a disordered imagination, whose phantoms vanish before the torch of reason.

#### OBSERVATION.

Our sight and hearing, if not sufficiently improved, may deceive us during the night, or when the mental faculties are impaired by fear or prejudice : hence the origin of the absurd belief in spectres. But if our senses be rendered perfect ; if we approach, and courageously endeavour to touch whatever imagination conjures up to our view, and that we explore whatever place a noise issues from, we shall soon be delivered from our delusion, and from the absurd belief in the existence of spectres, witches, and all such absurdities. Those who tell tales, and recount stories of spectres to children, with a view to frighten them, are highly reprehensible ; and should be excluded from all share in the education of youth.

Q. How can a good, intelligible pronunciation be obtained ?

A. By keeping the mouth and the nose clean, the neck free and uncovered, and obliging children to accustom themselves to speak slowly, distinctly, and emphatically, and keep themselves erect.

Q. Should we breathe through the mouth or the nose ?



A. We should breathe through the nose, but not through the mouth ; it is therefore necessary to keep the nose always clean, and to endeavour to breathe through the nose and keep the mouth shut during sleep.

Q. Are there no other parts of the body which man should take particular care in preserving ?

A. Yes ; his teeth ; for the teeth are not only necessary to assist us to pronounce distinctly, but for mastication also ; and on the proper mastication of our food depends, in a great measure, digestion, and the nourishment, health, and prosperity of mankind.

Q. How are the teeth injured ?

A. By much fluid aliment ; by coffee, tea, and other warm slops used instead of cold water ; by corrupted air in apartments ; by uncleanness ; by the use of tobacco ; by bits of food, particularly meat, sticking between them ; by hot meats and liquors ; by filling the mouth alternately with hot and cold things ; by biting hard substances, and picking our teeth with knives, forks, pins, and needles ; all which practices are highly injurious to them.

#### OBSERVATION.

Nobody should put pins or needles in the mouth ; they may easily be swallowed and cause death. In general it would be well to make as little use of pins, even in dressing, as possible.

Q. By what means are the teeth preserved sound ?\*

A. By the early habit of properly masticating our food ; by drinking cold water ; by breathing pure air, and eating cold and tepid aliment, and drinking no warm liquors at all ; by cleaning them after each meal either by drinking or gargling the mouth ; and by refraining from picking of them : all this is necessary to keep the teeth sound and beautiful.

Q. By what means are the front teeth preserved sound ?

A. By constant use, and the mastication particularly of dry substances, as bread, &c.

#### OBSERVATION.

Children are not to cut with a knife the bread that has

\* See Note 11.



been handed to them, but to break it with the teeth and chew it.

Q. Should children also preserve their milk-teeth?

A. By all means; for the lasting teeth, which are hid by them, are injured if the milk-teeth are not kept sound by much chewing and mastication.

Q. If the teeth be not kept sound from childhood and are injured, can they be restored to their original state?

A. No; that cannot be done; but through cleanliness, mastication, pure air, and cold water, injured teeth may be preserved from future injury.

Q. What are the best remedies to prevent tooth-ache?\*

A. Mastication, drinking of and gargling with cold water, pure air, cleanliness of the mouth, keeping the head cool, bathing the face after rising in the morning and before going to bed in cold water.

Q. Does the preservation of the saliva deserve our particular notice?

A. Very much. The saliva is very necessary in mastication and digestion, and for that reason the smoking and chewing of tobacco, by which a great deal of the saliva is wasted, is a very bad custom, as is also the wetting of the thread when spinning flax or hemp.

#### OBSERVATION.

The thread may be wetted with water which had been rendered clammy by beer, soap, ground linseed, bran, thin dough, starch, kernels of quinces, bird-lime, or other things. And besides, the flax or hemp should be well beat before it is put on the distaff, and well dusted, else, in spinning, the dust or ligneous particles will be drawn by the breath into the lungs, and occasion coughing, stuffing, and perhaps a consumption.

\* See Note 12.



## CHAPTER XXI.

## OF THE BEAUTY AND PERFECTION OF THE HUMAN BODY.

Q. WHAT may be considered as one of the most appropriate qualities, and as a discriminative characteristic, of man?

A. His beauty.

Q. What is the basis of this beauty?

A. Health, and the perfect conformation of the body.

## OBSERVATION.

“Health,” says Bertuch (see Journal of Fashion), March 1793, page 181, “is the only and infallible source of beauty; all other modes of attaining it, such as folly, imposture, and ignorance have devised, may be compared to a plaster, which soon falls off, leaving mournful traces of disease behind. The beautiful bloom of youth, the fresh colour, the accomplishment of the whole bodily structure, the free and easy play of the muscles, the fullness of the veins, the clear, delicately-spread, transparent skin, the glance of the eye so expressive of life and of the condition of the soul, cheerfulness extreme; all announce an inexpressible sensation of contentment and delight, which dispenses health and happiness both of soul and body, makes the husband, the wife, the youth, the virgin, and the infant, happy, and bestows on every member of society charms and attractive powers which no art in the world can afford.”

Q. By what particular means may health be attained?

A. By free and easy exercise of the body during infancy.

Q. What is besides requisite and necessary.

A. Free, pure air; washing and bathing; a light, easy dress; clear cold water for drinking; and simple good meals to nourish the body.

Q. By what means is the accomplishment or perfection of the body to be attained?



A. By avoiding sloth and inactivity till the twelfth year, after which, plays and gymnastic exercises will bring the body to every degree of perfection of which it is susceptible.

Q. What is yet necessary to facilitate the improvement of the body ?

A. The instruction of children in the various exercises of the body which tend to render man healthy, strong, industrious, and happy.

Q. What posture of the body ought we to recommend to children and to every one ?

A. The erect posture, whether we stand or walk, keeping the breast and head elevated ; and on all occasions that will admit of it, an upright posture is best.

Q. What, therefore, may be considered as very hurtful ?

A. Walking, standing, or sitting negligently, remaining bent or crooked, hanging down the head during inspiration, or while we speak or listen, and looking askance.

Q. Is it proper to accustom children to make use on all occasions of the right hand only ?

A. No, that is very wrong. Children are to be taught to make the same use of the left hand as the right.

Q. What does most diminish beauty ?

A. The habit which children sometimes contract of making wry faces and foolish gestures.

Q. Is the beauty of man all that depends on his accomplishment or perfection ?

A. No : innocence and peace, reason and virtue, the consciousness of having done one's duty, and contributed toward the general good, in endeavouring to diffuse happiness among mankind in their terrestrial abode, all show the accomplishment, the beauty and dignity of man.



## PART 2.—CHAPTER XXII.

## OF DISEASES; PHYSICIANS, AND MEDICINES.

## OBSERVATION.

IF people lived as they ought to do they would be exposed to very few internal complaints, perhaps to none at all ; and the little ailments to which Nature under all circumstances is obnoxious, would be removed by those powers with which God has endowed her, for the preservation of the life and health of the human body, constructed with infinite wisdom and intelligence. But people, seduced by their passions and misguided by error, lead an irregular and dissolute life, and thus expose themselves to a train of melancholy diseases.

Q. Tell me then, what ought those to do that are taken ill ?

A. They ought to keep themselves tranquil and composed, and apply for the assistance of a physician.

Q. What knowledge should a physician have who undertakes the cure of diseases ?

A. He should have a thorough knowledge of the beautiful and complicated structure of the human body ; know the proximate and remote causes of diseases, their nature and their mode of action on the human body ; how the *vis medicatrix naturæ*, or sanative power of nature operates ; and how medicines, whose virtues he ought to be acquainted with, contribute to remove or cure diseases.

Q. Is the knowledge necessary for a physician easily attained by reading a few books, or by conversation ?

A. No : It is a very difficult matter to attain a thorough knowledge of the science of physic, which we should begin to study in our youth, and cultivate continually through life with great assiduity and pains.

Q. To whom should a patient apply for assistance ?

A. Not to a quack, but to a physician celebrated for his understanding, erudition, and rectitude of heart ; who has



received a regular education, and studied methodically the very difficult art of knowing and curing diseases.

Q. What class of people do you call quacks ?

A. All those who are not acquainted with the structure of the human body, and who have not methodically studied the science of curing diseases ; all those who presume to judge of the nature of a disease by the urine only ; who arrogantly promise to cure every malady ; and all those are also classed among quacks who are not properly authorized to act in the capacity of physicians by some magistrate, university, college of physicians, or some other respectable authority.

Q. Is it possible to learn the nature of a disease from the urine ?

A. No : the urine by itself cannot determine the nature of a malady. Those, therefore, who set up as *water-doctors* are generally impostors, by whom many not only lose their money, but their health and lives.

Q. There are in every country presumptuous, ignorant people, and in some parts blacksmiths, farriers, and old women, &c. who give themselves an air of importance, have a great deal to say for themselves, inspect the urine, undertake to cure diseases, and find every where employment and credit,—is it judicious to apply to such people for assistance and remedies in cases of sickness ?

A. No, it is irrational ; and people who apply to such quacks for help, prove that they are very ignorant, and have been very badly instructed in their youth.

Q. Can maladies originate in supernatural causes, such as witchcraft or sorcery ?

A. No : it were nonsensical and foolish to believe it. Nature operates universally ; and all diseases spring from natural causes.

Q. What opinion may we form of travelling, advertising operators, and what are we to think of itinerant dentists and oculists ?

A. They are mostly braggadocios, who have no other view than to defraud the credulous of their money.

Q. Is it reasonable to buy medicines for man or beast of those medicine-hawkers who travel about the country ?

A. No : for by the stuff which those vagabonds sell, life



and health may be lost ; their nostrums should not be given to any even of the brute creation.

Q. Is it advisable to take domestic remedies ?

A. No : there is hardly one that answers the purpose. The best, the only, and universal domestic remedies which the Almighty has given us are—fresh air and cold water.

Q. What are we to observe respecting those universal, or secret medicines, for the cure, for instance, of canine madness, the ague, &c.

A. Nothing favourable ; they expose health and life to the utmost danger.

#### OBSERVATION.

The secret remedies against canine madness, and those which are usually resorted to as infallible, are good for nothing : they are not to be depended upon. The only certain means of preventing the fatal effects consequent on the bite of a mad dog, are washing the wounds as soon as possible with caustic ley, which destroys the surface of it ; or, filling it and covering the edges of it with Spanish-flies, which, by inducing copious suppuration, draw all the poison from the part affected.\*

Q. When people have received hurts on the exterior parts of the body, to whom are they to apply for assistance ?

A. To a surgeon.

Q. Is it very easy to attain a proper knowledge of surgery ?

A. No : to become a good surgeon, much study and labour are necessary.

Q. Where ought those medicines to be bought that are prescribed by a physician or surgeon ?

A. In the shops of apothecaries who are authorised to sell medicines, and who are noted for order and cleanliness, as well as for the ability with which they conduct business.

Q. Is the art of an apothecary easily learnt ?

A. No, it is very difficult ; many years are required to become acquainted with all the medicines, to know their properties, and how to prepare them judiciously.

\* See Note 13.



## OBSERVATION.

In some countries the chief business of physicians in ordinary, is to superintend and inspect all the apothecaries' shops in their respective provinces, to examine all the medicines, which, if good, they approve of; but they prosecute the apothecary, and confiscate his medicines, if they find them spurious.

Q. At what period of a disease is it most proper to apply to physicians?

A. Immediately, on the first attack.

Q. What knowledge and information doth a physician require that he may be able to cure a disease?

A. He must know the nature and the cause of the disease: it is, therefore, indispensably necessary to acquaint him with all the incidental circumstances and symptoms of the disease, and to lay before him the whole state of the patient from the beginning of the malady, with the greatest exactness and accuracy; he must know the constitution, and the manner of living of the patient, and likewise every circumstance which might have operated in producing the disease.

Q. What is therefore proper?

A. That the physician see and speak to the patient himself, and investigate the nature and cause of the disease.

Q. Suppose certain circumstances prevent this, what must then be done?

A. An exact and circumstantial statement of the case of the patient must be drawn by some intelligent person and sent to the doctor.

## OBSERVATION.

In order to do this properly, every house-keeper, or at least, every parish in the country, in or near which there is no physician, ought to be in possession of certain rules, according to which, such a statement may be drawn properly.

Q. What is required of a patient under the care of a physician?

A. That he takes the medicines which the physician has prescribed, faithfully, regularly, in due time, and in the dose prescribed.



Q. Is it to be expected that a serious indisposition should be cured by one prescription ?

A. No : as well may we expect a large tree to be cut down by one stroke of an axe, as a disease of any consequence to be cured by the first prescribed physic.

Q. If, then, the first prescribed medicine does not give relief, must the patient persevere in the use of it, or employ another doctor ?

A. The patient must continue to take medicine till the disease be cured ; but he must not go from one doctor to another.

Q. Is it sufficient that the patient take the medicine prescribed, in order to obtain a cure ?

A. No, it is not sufficient : he must observe a proper diet, without which, medicines become of little use. Diseases are often cured by the healing powers of nature, assisted only by proper regimen.



## CHAPTER XXIII.

## OF THE CONDUCT TO BE OBSERVED BY PATIENTS AFFLICTED WITH ARDENT FEVERS.

## OBSERVATION.

THOSE diseases are denominated febrile, which manifest themselves by cold or hot fits, and an unnatural alteration in the pulse, commonly accompanied with dislike to food, vomiting, weakness, anxiety, and pains all over the body, or in particular parts, and head-ache.

Q. A patient is a poor, helpless creature, oppressed by anxiety and pains ;—how, then, ought he to be treated ?

A. With the greatest tenderness, kindness, and affection ; he ought to be attended and nursed with great and judicious care.

Q. Is it proper to talk much to patients who suffer under grievous diseases, or to make great noise and confusion about them ?

A. No : patients ought as little as possible to be disturbed by talking ; and every thing about them ought to be quiet.

Q. Is it proper to admit visitors, or many persons, in the room where a patient lies ?

A. No ; because the air becomes corrupted by the breath and exhalations from so many visitors, who generally come through curiosity, and therefore ought not to be admitted.

Q. What ought to be the state of the air in the rooms or chambers of the sick ?

A. All patients, particularly those that labour under fever, ought to breathe fresh, pure, and dry air.

Q. Is fresh air so necessary for a patient ?

A. Yes ; it is indispensably necessary for him ; for it is most effectual in cooling and composing him, and diminishes anxiety.

Q. What is further necessary ?

A. That the room where the patient lies be aired by



keeping the window open almost the whole day ; that the windows and doors be thrown open occasionally, and that great care be taken not to expose the patient to gusts of air.

Q. What kind of room is best adapted for a patient ?

A. A dry, lofty and large room ; not a low, narrow, damp, and musty room : it must be kept clean and orderly, all dust and nastiness expelled, and nothing suffered in it that can corrupt or affect the air.

Q. Should the room of a patient be lightsome or dark ?

A. It should not be very luminous, but rather darkish, as the light disturbs the repose of the patient.

Q. What kind of bed doth a patient require ?

A. An orderly and clean bed, not too warm, with covering not too heavy, bed not too soft, and clean linen. If straw be used instead of mattresses, it must be fresh and dry, and free from all offensive smell.

Q. Is it good or bad for fever-patients to lie on feather-beds ?

A. It is hurtful ; for such beds augment the fever, and make it worse. Patients should lie on mattresses stuffed with horse-hair, or on straw, covered with a light quilt.

Q. May two patients, or a patient and a person in good health, lie together in one bed ?

A. No ; every patient ought to have a bed to himself, and, if particular circumstances do not intervene, a room also ; with respect to healthy persons, they ought not to sleep in the bed, or in the room, of a patient.

Q. May the curtains of the bed be drawn in which a patient lies ?

A. No ; because it deprives him of the fresh air.

Q. Ought not the bed of a patient to be shook and made daily ?

A. Yes : a patient ought to be taken every day out of bed, at a time when he is not in a perspiration, that the bed may be made.

Q. How ought a patient to be dressed ?

A. His dress ought to be clean and comfortable.

Q. Ought not the sheets of the bed, and the shirt or shift of the patient, to be changed ?

A. Yes ; they ought to be often changed ; but the clean linen substituted ought to be well aired.



Q. How ought the bed of a patient to be placed ?

A. Not near a cold, damp wall, exposed to a stream of air ; but in an open, free situation, that the patient may be approached and assisted on either side without inconvenience.

Q. Is it proper to keep the heads of fever-patients, who are commonly very much affected with head-aches, warm ?

A. No ; their heads are to be kept cool and uncovered, that the head-ache and delirium may not increase.

Q. What are patients to drink, particularly those who are afflicted with ardent fevers, which induce thirst ?

A. Cold, pure water, which has for some time been exposed to the air, and thereby lost the greatest part of its chilliness. In fevers it ought to be mixed with vinegar or lemon-juice. A piece of toasted bread may also be added, being a good ingredient.\*

Q. Is it good to warm or boil the water before it be given the patient ?

A. No ; it should neither be warmed nor boiled ; for boiled water does not quench thirst nor compose the patient, nor is it at all good for such as are very thirsty.

Q. Is it proper for patients to drink much tea ?

A. No ; it is commonly hurtful to them.

#### OBSERVATION.

The drinking of much warm tea is also very hurtful to women in childbed : cold tea is preferable.

Q. Do fever-patients like to drink cold water ?

A. Yes : cold water and fresh air are the best corroborants for fever-patients ; they refresh, and diminish the anxiety and pains.

Q. Must a fever-patient drink much water ?

A. Yes ; he ought to drink a great quantity ; to quench his thirst it is necessary.

Q. Does cold water chill a patient afflicted with fever ?

A. No ; on the contrary, it makes him warm : a patient after drinking cold water falls into a genial perspiration ; and warm liquids frequently produce heat without any perspiration.

\* See Note 14.



## OBSERVATION.

In fluxes, pulmonic affections, and a few other diseases, warm drinks may perhaps agree better with the patient than cold.

Q. May a patient labouring under fever drink beer, coffee, wine, brandy, or other spirituous liquors ?

A. No ; neither beer nor coffee ; much less wine, brandy, or other spirituous liquors.

Q. What regimen ought a patient to observe ?

A. Patients afflicted with violent fever, or who labour under any other dangerous malady, lose all appetite, and therefore are not to be pressed to eat.

Q. Why should not patients in a fever be pressed to eat ?

A. Because they do not digest ; and food remaining undigested in the stomach aggravates all diseases, particularly inflammatory fevers.

Q. Is it proper to admit a patient afflicted with the first attack of fever to eat, if he has an appetite ?

A. No ; it is better for him to fast ; for the eating of any thing readily increases the disease ; fasting diminishes it ; and there is no danger of starving.

Q. What kind of nourishment had best be given a patient in fever, should he be desirous of any ?

A. Butter-milk, sour milk, fresh, ripe, juicy fruits, raspberries, cherries, plums, grapes, baked or dried fruit, barley-water, or water-gruel mixed with vinegar or lemon-juice ; and, in short, whatever can cool and refresh the patient.

## OBSERVATION.

As fruit, whether fresh, dried, or made into jellies, is a most useful article, not only for the sick, but for general domestic use ; and as fine fruit-trees are an ornament to a country, and a credit to the farmer ; children ought, therefore, to be made thoroughly sensible of the great utility of planting good sound fruit-trees, to be inoculated with the choicest buds ; and that it is their duty to promote the culture of fruit-trees with the utmost assiduity.

In the next place, it is proper to shew them how sinful and shameful it is to damage fruit-trees, blossoms, or un-



ripe fruit, or waste ripe fruits by throwing sticks or stones at them, or plucking them wantonly.

Near every burying-ground there ought to be a plantation of fruit-trees, propagated not from kernels only, but from fruits—from (for example) apples and pears, perfectly ripe, that have dropped or fallen from a sound, fruitful tree;—such are to be planted like potatoes, lineally, in a plowed land, and be covered with thin or little earth. Two or three years after, the two strongest of the four or six saplings produced by each apple or pear are to be planted in an orchard or plantation, to serve as stocks, into which cyons may be engrafted.

The saplings propagated from the fruit itself will be a great deal more healthy, more fruitful, and durable, than those that are propagated from kernels only; and, if proper scions be engrafted into them (perhaps without), the most excellent fruits, in great abundance, may be expected.

Q. What kinds of food are patients afflicted with fever to avoid?

A. Viands, broths, butter, eggs, heavy pastes, or bread not well fermented or baked, are not to be allowed to such patients.

Q. When does their appetite return?

A. Not till the fever is cured, and rest and sleep restored.\*

Q. Should patients in general labouring under fever be kept warm or cool?

A. Such patients ought to be kept cool, avoiding all heat; and for that reason great fires must not be made in the room where the patient lies, for his situation requires him to be kept more cool than warm.

Q. Is it good to sprinkle perfumes on the patient, or in his room?

A. Fresh air is better than all incense; but in malignant diseases it is very proper to correct the air by pouring vinegar upon red-hot iron repeatedly during the day.

#### OBSERVATION.

John Howard, that friend to mankind, who, in visiting

\* See Note 15.



and exploring prisons, hospitals, and lazarettos, sacrificed his life for the benefit of the human race, said, "The use of perfumes or incense is a clear demonstration of the want of cleanliness and fresh air."

Q. May a patient ill of a fever be bled?

A. It is in many fevers dangerous to bleed; and without the approbation of a physician no bleeding should take place in fevers.

Q. But is it advisable for people in good health to accustom themselves to be bled annually once or twice?

A. No. People that are in good health should never be bled; for by bleeding without necessity the blood is depraved, the body weakened, and health impaired.

#### OBSERVATION.

Bleeding pregnant women once or twice during their pregnancy is a very bad custom, hurtful both to mother and child.

As many maladies, and particularly many fevers, originate in, or are connected with, a foulness of the stomach, emetics are often of very great service, as they expel all foulness from the stomach.

Q. Should those who are ill of fever be permitted to remain long costive?

A. No. In fevers, and in all diseases, costiveness is very dangerous, and at all times injurious.

#### OBSERVATION.

For persons whose general health is good, and who are slightly indisposed, stewed, fresh, or dried fruit, particularly plumbs, are a good remedy against costiveness.

Q. If a person be sick, and at the same time costive, by what means ought he to be relieved?

A. By a clyster.

Q. Are clysters dangerous or doubtful remedies?

A. No; they are not.

Q. What are we to observe with regard to the habit which some people have acquired of taking annually, at certain periods, purgatives?

A. It is a very bad custom; and medicines sold by pedlars and such vagabonds are commonly very pernicious.



Q. Ought children in good health to be purged often ?

A. No ; it tends to nothing good ; and in general the health of children should be preserved by proper attention, by nursing, and by much exercise in the open air, rather than by medicines.

Q. Is it dangerous to blister in fevers, rheumatism, gout, and many other diseases ?

A. No ; for Spanish-flies are not dangerous ; they may be applied to little children, and render often much service.

Q. Is it good to make use of plaisters and salves in cases of wounds, contusions, or ulcers ?

A. No ; plaisters and salves do seldom good ; in most cases they do more harm than good.

#### OBSERVATION.

In cases of ulcers on the feet, or St. Anthony's fire in particular, plaisters and salves are carefully to be avoided, as very bad, and productive often of obstinate sores.

Q. What must be done with wounds that are not very large and deep, where neither a great vein nor the bowels are hurt ?

A. The wound must be bandaged with a dry linen cloth, without being previously washed or cleansed with brandy or water ; for the blood, which is better than all plaisters and salves, will perfectly cure the wound without any supuration.

Q. What is best to be done in cases of contusion ?

A. Linen cloths dipped in equal quantities of vinegar and water should be continually applied cold to the injured part : the pains will thus be abated, and the extravasated blood absorbed.

#### OBSERVATION.

Little ulcers may be dressed with lint ; or apply a linen bandage dipped in vinegar.

Q. How are scalded parts to be cured ?

A. If (exactly as directed for contusions) linen cloths dipped in cold vinegar and water be applied from the beginning, and repeated every quarter of an hour, the burns will be cured better than by plaisters and salves.



## OBSERVATION.

Vinegar and water (equal parts) cures also sore nipples. Mothers may prevent soreness of the nipples by washing them often in cold water before and after delivery.\*

\* See Note 17.



## CHAPTER XXIV.

OF DISEASES WHICH UNIVERSALLY PREVAIL ; OF EDEMIAL,  
AND OF PARTICULAR, MALADIES.

Q. IF diseases be very rife, and attack many, must the healthy take medicines, with a view of escaping from infection ?

A. No ; a healthy person should never take physic.

Q. Should not people in such a case purge, take emetics, sweating potions, or be bled ?

A. No ; such weakening remedies would sooner beget than prevent infection.

Q. Is it good to take corroborants for the stomach ?

A. No ; they are more hurtful than beneficial.

Q. What should a person in good health do to escape general contagion ?

A. He should be very temperate in eating and drinking, observe cleanliness, take a great deal of exercise, and be careful not to over-heat himself or to catch cold.

## OBSERVATION.

In times of scarcity putrid fever and contagious diseases, which sometimes depopulate whole provinces, are caused by eating bad bread, and by unwholesome food in general.

Q. Is no other precaution necessary ?

A. Yes ; and as diseases that generally prevail are often contagious, we should not expose ourselves to danger by visiting patients, nurses, or hospitals.

Q. When certain diseases, for instance the ague, are endemial, and that stagnant waters or morasses in the neighbourhood are the cause of such fevers, what should the inhabitants do ?

A. They ought to drain the waters and dry the morasses, and the fever will cease ; for with the cause the effect naturally ceases.



Q. If mechanics or artists be often attacked by diseases peculiar to them, a stone-mason, for instance, with consumption, painters with cholic, what ought they to do ?

A. They ought, as sensible men, who wish to be healthy and live long, to investigate the true cause of their frequent disease, and strive to find out how they can diminish or avoid it.

#### OBSERVATION.

Those who lead a sedentary life, females, mechanics, artists, the studious, ought, from their infancy till the complete shedding of the teeth in the twelfth year, to be exhorted or obliged to take a great deal of bodily exercise in the open air, in order that future inactivity and confinement may not injure their health and happiness too much.



## CHAPTER XXV.

## OF CONTAGIOUS DISEASES.

Q. WHICH diseases are peculiarly contagious ?

A. Putrid fevers, spotted fevers, dysentery, the yellow and scarlet fever, small-pox, and measles. The plague, the worst of all diseases, is very infectious.

Q. How do they communicate infection ?

A. By contact, or through the medium of the atmosphere, impregnated with putrid miasm, arising from the perspiration of patients labouring under any of those diseases.

Q. What is particularly to be observed with respect to alleviating the symptoms which obtain in contagious diseases ?

A. The air, as well in the room as in the house where the patient lies, ought to be preserved continually pure and fresh, by keeping one window always, and the windows and doors occasionally open. In short, one cannot be too assiduous in procuring constant fresh air.

Q. What is further to be observed ?

A. The greatest cleanliness ought to be observed with regard to the patient, the bed, the room, and attendants, observing not to keep the room too warm.

Q. What else should be done to guard against infection ?

A. We should not expose ourselves to the breath, or the exhalation from the body of the patient ; we should avoid eating any thing in the apartments of the sick ; guard ourselves against infection by good cheer and fortitude, and as far as we can, administer relief and comfort.

Q. What duties do those who are intrusted with the care of patients owe to their fellow-creatures ?

A. They ought, in order to prevent the infection from spreading, to keep by themselves, avoid all unnecessary intercourse with other people, and not enter any school or church ; and the children and domestics of patients should be placed under the same restraint.



## OBSERVATION.

To schools contagious diseases are often communicated by children, and so spread to the distant parts.

Q. May many persons be admitted into the room of a patient who is infected with a contagious disease ?

A. None but those that are intrusted with the care of the patient ; and all curious visitors should be refused admittance without any ceremony.

Q. Why is it a duty incumbent on the healthy to avoid approaching an infected person when there is no pressing necessity that impels us to expose ourselves to contagion ?

A. Because self-preservation, and what we owe to our families and fellow-creatures, directs us not to endanger our own health, and especially not to risk the health of our fellow-creatures.

Q. If an infected person dies, what is then to be done ?

A. The corpse must not be exposed to public view, but buried as soon as possible, avoiding funeral pomp, and admitting but few to attend the bier.

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CHAPTER XXVI.

## OF TREATMENT AFTER DISEASES ARE REMOVED.

Q. WHAT ought to be observed after heavy diseases are removed ?

A. Regularity and temperance in eating and drinking, taking only light, nourishing food, and observing not to expose ourselves too soon to the weather.

Q. And may a person just restored to health set to work immediately ?

A. No : a person just risen from the bed of sickness ought first completely to recruit his natural strength and vigour before he begins to work again.



## CHAPTER XXVII.

## OF PUBLIC INSTITUTIONS FOR THE SICK.

## OBSERVATION.

CHILDREN, if we consider the numberless unhappy and miserable wretches that are scattered over the surface of the earth, afflicted with diseases and poverty, unable to promote their own, or the happiness of their fellow-creatures, depending on the bounty and labour of others for their support, causing embarrassment, anxiety, and trouble to society, to which they are unable to make any compensation; we must acknowledge that diseases are evils of the greatest magnitude, affecting, not only particular individuals, but the community at large, and embittering the cup of life.

Q. By what means can people avoid those evils?

A. By observing the two following rules:—

1. That all persons, particularly children, be instructed respecting the nature of the human body, and the means of preserving health, with a view of extending life beyond the usual period, and guarding ourselves as much as possible against disease and death.

2. That all patients receive the best attendance and nursing, and all possible assistance and help from physicians and surgeons.

Q. Do all patients receive such necessary attendance and assistance?

A. No: they are too often neglected.

Q. What reasons can be assigned for the greater number of patients not receiving the necessary attendance and assistance?

A. The ignorance, the poverty, and the misery of so many people; their wretched and unwholesome habitations; want of constant fresh air; uncleanness; bad, loathsome beds; and the indigence of so many people, which prevents them from calling in a physician or surgeon, or procuring medicines.



## ADDRESS TO CHILDREN.

You are right, dearest children ; diseases not only become through those circumstances dangerous and mortal, and sources of the greatest misery to patients and their families who live by their industry only, but they also become at last contagious, and spread their baneful influence far and wide over the human race.

It is true that people may be delivered from their ignorance by proper instructions regarding the attendance and nursing of patients, and thereby be rendered capable of serving their fellow-creatures ; yet all patients cannot help themselves ; and there will be still many poor sufferers left, who in vain will demand or seek for assistance.

Q. What, therefore, should we do for the preservation of the lives and health of our fellow-creatures ?

A. We ought to erect every where hospitals, or appropriate houses for the same purpose ; and take care that all poor, indigent, diseased persons find in those habitations the best accommodations ; or that every assistance be administered to them *gratis*\* in their own houses, which ought to be kept clean. Patients in either case should have the assistance *gratis* of such physicians and surgeons as are generally esteemed for their rectitude, humanity, and abilities.

Q. Why should man establish such institutions ?

A. Because it is his duty.

## ADDRESS.

Yes, dear friends, it is your bounden duty to erect hospitals for the reception of your poor, sick, helpless, unfortunate brethren—for we are all children of the All-Bountiful Heavenly Father, who ordained mutual love and charity among mankind, and beholds the mansions of the sick and unfortunate as temples erected to Himself.

\* *Res sacra est miser.*



## ORDER OF THE HUMAN TEETH.

## OF TEMPORARY TEETH.

The following periods may be given as a general rule of the appearance of the human temporary teeth, liable, however, to continual exceptions.

From	5	to	8	months,	the four central incisors.
—	7	—	10	—	the four lateral incisors.
—	12	—	16	—	the four anterior molares.
—	14	—	20	—	the four cuspidati.
—	18	—	36	—	the four posterior molares.

## OF PERMANENT TEETH.

The change of temporary for the permanent teeth commences in the majority of instances at about seven years of age, though sometimes as early as the fifth, and as late sometimes as the eighth year. The following are about the medium periods, at which the different permanent teeth are usually cut; but like the temporary, they are often very irregular. The appearance of the teeth of the lower jaw is indicated here; their appearance is generally two or three months before those of the upper jaw.

Anterior molares	.....	6 $\frac{1}{2}$	years.
Central incisors	.....	7	—
Lateral incisors	.....	8	—
Anterior bicuspides	.....	9	—
Posterior bicuspides	.....	10	—
Cuspidati	.....	11-12	—
Second molares	.....	12-13	—
Third molares or Wise Teeth	.....	17-19	—

*Bell on the Teeth.*



REMARKS  
ON THE  
NATURE AND TREATMENT  
OF THE  
CHOLERA MORBUS,

Both the English and Foreign Disease.

BY A PHYSICIAN.

1.—ENGLISH CHOLERA.

THE disease called Cholera Morbus, as it occurs in this country, consists of frequent and violent discharges of bilious matter, both upwards and downwards, with painful gripings, and spasmodic pains of the calves of the legs. It occurs in warm climates, at all times of the year, but in England and similar climates it is most prevalent in autumn. The violence of the disease is in proportion, for the most part, to the heat of the *preceding summer*.

2.—INDIAN CHOLERA.

A very severe Cholera Morbus is a prevalent disease on the Coast of Malabar. But towards the close of the years 1817 and 1818, the disorder prevailed epidemically throughout Hindostan and the Peninsula of India, and several thousands of the natives, both Mussulmans and Hindoos, as also Europeans fell a sacrifice to it. Almost every corps in the army was attacked with it. It raged with dreadful fatality in Calcutta. The practitioners in India admit that no marked peculiarity in the weather was observed previous to the appearance of this disease in Bengal, and it does not seem to have been at all affected in its severity or progress by the circumstance of season, temperature, or moisture.



It was observed to prevail with equal violence when the thermometer stood at 40° or 50°, as when it stood at 90° or 100°, during the prevalence of incessant rains for months, and when the face of the earth was scorched up by long continued heat and drought. From the report given in, it appears that the disease was not considered by the majority of practitioners in India as contagious, although judged by some to have such an influence.

The disease proved every where more fatal to natives than Europeans.

### 3.—GENERAL SYMPTOMS.

The disease commonly begins with a watery purging, unattended with griping or any pain, at an interval of generally from half an hour to five or six hours, and sometimes without any interval. The patient vomits a white fluid.

### 4.—FAVOURABLE SIGNS.

A favourable issue is denoted by a rising of the pulse, a return of heat to the surface, inclination to natural sleep, and a diminution or cessation of vomiting, purging, and spasms.

### 5.—MOST REMARKABLE SYMPTOMS.

One of the most invariable symptoms of the disease is great diminution of the circulation, the pulse becomes almost imperceptible, and it is extraordinary how long some patients will survive after the pulse ceases to beat. Dr. Kellet relates a case where the pulse was gone within three hours from the attack; yet the man lived in that state from the third of October at four p. m. to the sixth at two p. m. On the cessation of spasm or vomiting, and sometimes from the exhibition apparently of remedies, the pulse will return to the extremities for a short time, and again cease. In every fatal case the circulation stops, at least, in the extremities, long before death.

### 6.—BENEFIT FROM MEDICAL AID.

In a district in India, about 1300 cases occurred, which were totally unprovided with medical aid or medicine, and there is reason to believe that of these every individual perished.



It was not ascertained that any one case had recovered in which medicine had not been administered; and, on the other hand, when medical treatment was afforded, the mortality was, in some cases, as low as eight deaths in a hundred cases.

#### 7.—TREATMENT.

##### FORTUNATE BLUNDER.

In India, by mistake, twenty grains of calomel, and sixty minims of laudanum were given at an interval of less than an hour; the patient was inclined to sleep; nothing more was done; and in two hours and a half, he was as well as ever he had been in his life.

#### 8.—INJUDICIOUS PRACTICE.

Some medical men have fallen into a great mistake, in prescribing in this country a remedy that has been successful in India—even in Russia this has unfortunately occurred. In the letter of Dr. Ewertz, addressed to Baron Von Graefe, surgeon to the King of Prussia, he represents his plan of cure as, “attended by a far more happy result than the previous treatment, with large doses of calomel and opium, according to the English method.” I am happy to be able to state that the majority of English physicians would not prescribe calomel for the disease in this country, or in Russia, where the Indian dose would be attended with injurious consequences.

In administering medicine, it is as necessary to regulate the dose according to the climate, as to the age of the patient. In India, the dose of calomel generally given, is twenty times greater than in this country, and yet the effects are the same. The dose of calomel should, generally speaking, be diminished in proportion to the coldness of the climate; and a larger dose may be given in summer than in winter: but it is not so with opium, or the tincture of opium. In India, this remedy has been attended with the most beneficial effects, but there it could not have the desired effect without being combined with calomel; for in nine cases out of ten that occur, the liver is deranged in its functions.



9.—THE INDIAN CHOLERA ALTERED BY THE  
NORTHERN CLIMATE.

The symptoms are not so severe, and the fatality is considerably reduced by the colder atmosphere of Europe.

10.—THE AUTHOR'S PERSONAL EXPERIENCE.

I have had four very severe attacks of cholera. The symptoms have been invariably proportional to the heat of the weather and the climate. The most violent attack occurred in Italy, at Florence, in the autumn after the warm summer of 1823.

11.—REMEDIES NEVER KNOWN TO FAIL.

The remedies which I have never seen unsuccessful in Cholera, when properly administered, are the following:—

Compound Tincture of Cardamom, one ounce,  
Tincture of Opium,  
Compound Spirits of Lavender,  
Wine of Ipecacuanha, of each a fluid drachm and a half. Mix.

Take a tea-spoonful every hour until vomiting and purging cease. In very severe cases, two tea-spoonful may be taken for the first two doses.

The following liniment is to be frequently rubbed to the legs, and whatever parts are affected by the spasms, and also over the stomach and bowels:—

Compound Liniment of Soap, two ounces,  
Compound Spirits of Lavender,  
Tincture of Opium, of each one ounce. Mix for a liniment.

SUBSEQUENT TREATMENT.

A mild aperient, such as magnesia, tartarized soda, or castor oil, should be taken when all symptoms of the disease are gone, and the strength of the patient is somewhat restored.



APPENDIX  
TO THE  
CATECHISM OF HEALTH.

---

LONGEVITY.

THE existence of the human frame, like the duration of a ship that traverses the deep, depends not so much on the strength and form of its original structure, as upon the nature and variety of the dangers to which in its voyage it may be exposed.

Educated reason like an experienced pilot, steers a virtuous course. But the improvident man hurried along with the tide of life, impelled by stormy passions, must be wrecked upon the rocks of temptation.

Numerous examples are on record of individuals who have prolonged their existence to more than double the period of the ordinary duration of human life. Three most remarkable have been selected, and are represented in the plates.

Lewis Cornaro was descended from one of the most illustrious families of Venice, but, by the ill conduct of some of his relations, had the misfortune to be deprived of the dignity of a nobleman, and excluded from all honours and public employments in the state. He was a man of sound understanding, determined courage and resolution; in his younger days he had contracted infirmities by intemperance and by indulging his too great propensity to anger, but when he perceived the ill consequences of his irregularities, he had command enough over himself to subdue his passion, and inordinate appetites. By means of great sobriety, and a strict regimen in his diet, he recovered his health and vigour, which he preserved to an extreme old age. At a very advanced period



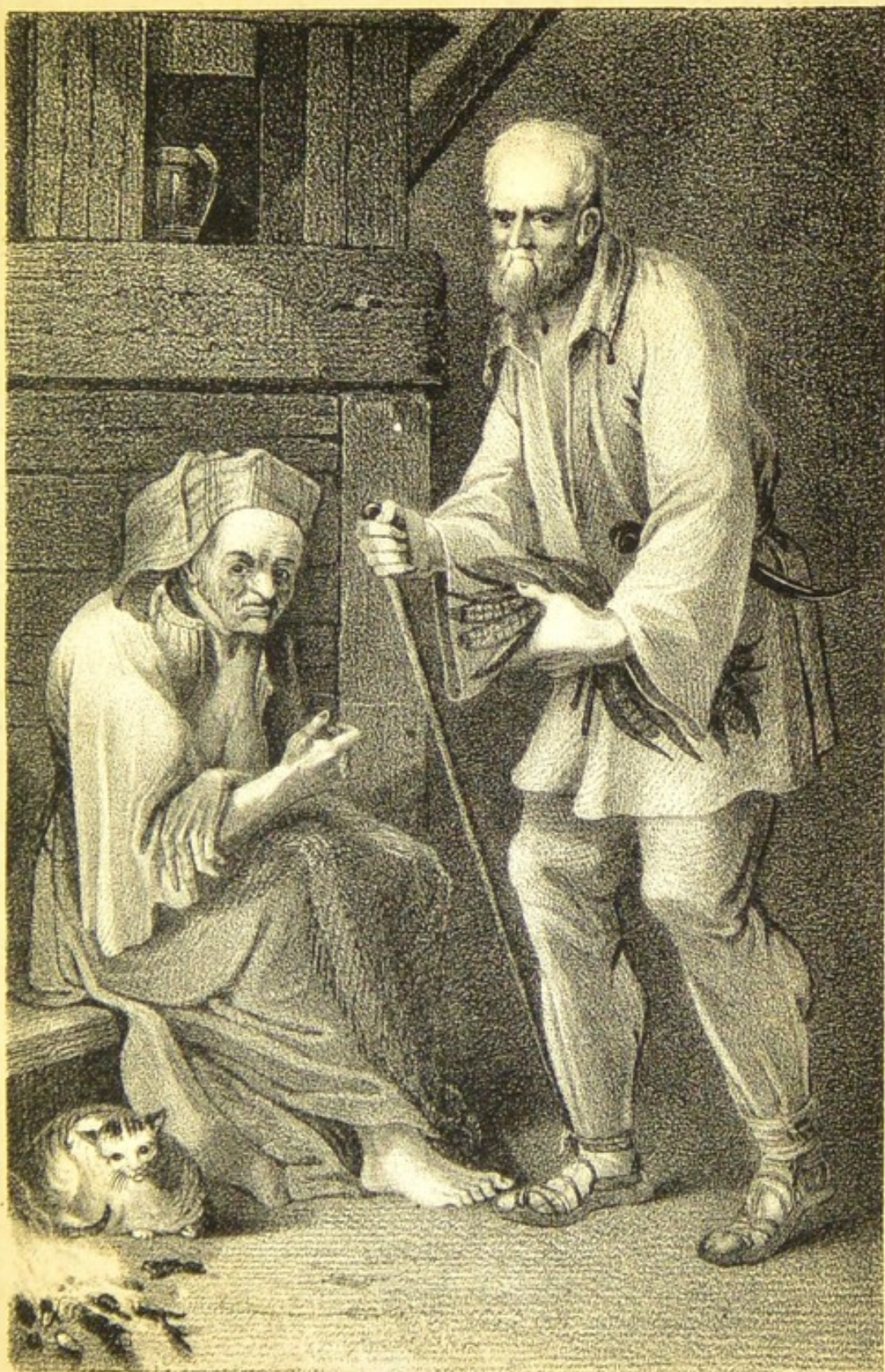
of his life, he wrote four discourses, wherein he acquaints us with the irregularity of his youth, his reformation of manners, and the hopes he entertained of living a long time. Nor was he mistaken in his expectation, for he resigned his last breath without any agony, sitting in an elbow chair, (being above a hundred years old,) at Padaa, on the 26th of April, 1566. His lady, almost as old as himself, survived him but a short time, and died an easy death.

They were both interred in St. Anthony's church.

His discourses, though written in his old age, were perused at different times, and published separately; the first which he wrote at the age of eighty-three, is entitled "*A Treatise on a Sober Life*," in which he declares against every kind of intemperance, and his vigorous old age speaks in favour of his precepts. The second treatise he composed at the age of eighty-six; it contains further encomiums on sobriety, and points out the means of mending a bad constitution. He says that he came into the world with a choleric disposition; but that his temperate way of life had enabled him to subdue it. The third which he wrote at the age of ninety-one, is entitled "*An earnest exhortation to a Sober Life*;" here he uses the strongest arguments to persuade mankind to embrace a temperate life, as the means of attaining a healthy and vigorous old age. The fourth and last is a letter to Barbaro, Patriarch of Aquileia, written at the age of ninety-five; it contains a lively description of the health, vigour, and perfect use of all his faculties; which he had the happiness of enjoying at that advanced period of life. This useful work was translated into English under the title of "*Sure and Certain Method of attaining a Long and Healthy Life*." Mr. Addison thus speaks of it, Spectator, Vol. 3, No. 195.

"The most remarkable instance of the efficacy of temperance towards procuring long life, is what we meet with in a little book published by Lewis Cornaro—the Venetian; which I would rather mention, because it is of an undoubted credit, as the late Venetian Ambassador who was of the same family, attested more than once in conversation, when he resided in England. Cornaro who



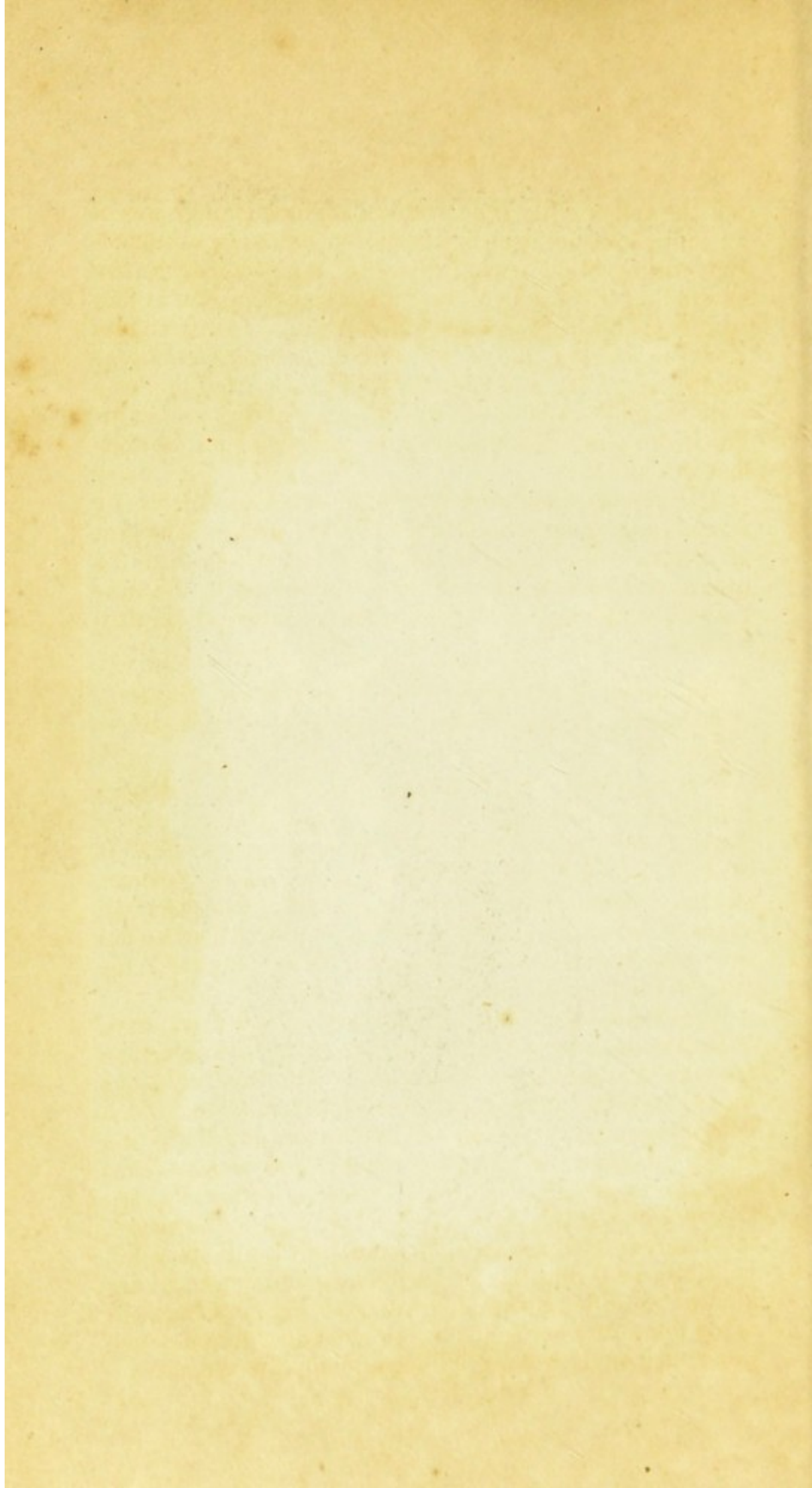


Drawn by John W. Cole

Married 16th 302 Oxford St

John Rowin in the 172<sup>nd</sup> & Mary his Wife in the 164<sup>th</sup>  
Year of their respective Ages.







was the author of the little treatise I am mentioning, was of an infirm constitution till about forty, when, by obstinately persisting in an exact course of temperance, he recovered a perfect state of health, in so much, that at four score he published his book which has been translated into English under the title of "*Sure and Certain Methods of attaining a Long and Healthy Life.*" He lived to give a third or fourth edition of it, and after having passed his hundredth year, died without pain or agony, and like one that falls asleep.

The treatise I mention has been taken notice of by several eminent authors, and it is written with such a spirit of cheerfulness—religion and good sense—as are the natural concomitants of temperance and sobriety; the mixture of the old man in it, is rather a recommendation than a discredit to it.

*Translation of the Inscription on a Picture formerly belonging to the Percies, Earls of Northumberland:—*

"John Rovin, in the 172nd year of his age, and Sarah his wife, in the 164th year of her age, they have been married 147 years, and both were born, and died at Stadova, in the direction of Casanseber, in Tameswaer Banets. Their children, two sons and two daughters, all yet alive; the youngest son is 116 years of age, and he has two great-grandsons, one is in his 35th year, and the other in his 27th year. Dated August, 1725."

The dress of John Rovin, consists of a white frock open at the bosom, and reaching almost down to his knees, and is confined round his waist by a girdle—in which is hung a knife; in his left hand is a bundle of Indian Corn, which he is presenting to his wife. His hair and beard are of a light grey colour; his eyes are quick, clear and penetrating; in his whole deportment there is rather the appearance of a general decline of nature, but, by no means, those traces of old age, which so strongly mark his wife; he is by an old ruin, and in the fore-ground is a small fire kindled with dried sticks; his wife is sitting on a fragment of the ruin, near her feet is a very handsome tortoise-shell cat, sitting on the ground, which also appears very old.



Among numerous instances of longevity constantly occurring in Britain, it is natural to expect some uncommon great ages must make their appearance. Two of the most remarkable are recorded in the philosophical transactions. Thomas Parr, a peasant of Shropshire, died in 1635, at the great age of 152 years, and nine months; he married in his hundred and twentieth year; and it appeared from the inspection of his body after death, that he might have lived several years longer, if a plethoric state of the lungs had not been induced by his sudden change of habits from the coarse diet and pure air of the country to the luxurious living and dense atmosphere of a palace in London.

Henry Jenkins, labourer of Yorkshire, died in the year 1670, at the still greater age of 169. He remembered the particulars of the battle of Floddenfield, which happened when he was twelve years old.

We learn from the sacred writings, the extreme longevity of the Jewish Patriarchs; but the causes which have conspired to diminish the term of human life since the deluge, have ever been matter for fruitless enquiry, and sources of presumptuous and erroneous theories.

The age of man decreased gradually after the flood. The life of Shem fell short of that of his forefathers by 300 years, from his existing only a single century, antecedent to the flood. He however lived five hundred years upon the ruins of the old world; and longevity continued to decrease slowly from his age, to 175 at the call of Abraham, and to three score and ten in the days of King David; since which, the age of man has continued nearly at the same standard, for 3000 years. That the common duration of man's life since this period, has been the same in all ages, is plain both from sacred and profane history. Yet instances of lives greatly exceeding this period, are not only to be found in the history of all ages and countries, but even in our own country and in the present age.

The contracted span of life after the deluge may have been the necessary consequence of so great a convulsion of the globe; by which the whole face of nature was changed, and new properties were given to the edible productions of the earth. Most of the animals which were inhabitants of the antediluvian, were not restored, and have been only known



in the postdiluvian world by their gigantic fossil remains. From the diminished area of the postdiluvian lands, and the temperature of its seas, the new globe could not furnish room or food sufficient for the myriads of enormous animals which peopled its predecessor as the fossil Elephant, the Mastodon, Great Cavern Bear, Palæotherium, Megalonyxe, Megalosaurus and Iguanodon.

Those powerful and voracious quadrupeds would have consumed the nascent herbage which the horse, the cow, the sheep, and the other tribes of domestic animals required.

That the existence of these gigantic animals was proportionate to their size, there is every reason to believe, for every where around us, we see the same relative harmonies of size and duration in the animal kingdom, from the Ephemera that flutters its life over the purling brook, to the huge Leviathan of the unfathomable deep. That primeval man was endowed by divine providence, with a form and nature analogous to those gigantic animals appears not improbable, and thus, as Professor Ure beautifully and justly observes, "We may perceive divine providence rearing with one hand a monument to all ages of the punishment of incorrigible impiety; and with the other constructing a better habitation for man, the destined scene of a new covenant of grace, to be hallowed in the fulness of time, with the footsteps of Emmanuel. The first earth had displayed "in sight of mortal and immortal powers" how grievously the gift of robust health and longevity might be abused by wilful free agents. The second was ordained to show how conducive a feeble frame and a brief span of existence might be made to the eternal welfare of responsible beings."—*Ure's Geology*, p. 597.

#### ANTE-DILUVIAN AGES.

Adam.....	lived to.....	930
Seth .....		912
Enos .....		905
Cainan.....		910
Mahaleel.....		895
Jared.....		962



Methuselah.....lived to .....	969
Lamech .....	777

## POST DILUVIAN AGES.

Shem.....lived to.....	600
Arphaxad .....	438
Cainan .....	460
Salah .....	433
Eber .....	464
Peleg .....	239
Reu .....	239
Serug .....	330
Nahor .....	148
Tera .....	205
Abraham .....	175
Ishmael .....	137
Isaac .....	180
Jacob .....	147
Joseph.....	110
Levi.....	137
Moses .....	120
Joshua.....	110
Samuel.....	98
David.....	70



## NOTES.

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### Note 1.

The most useful popular publications on the structure and functions of the human body are the Nos. 9, 44, 52, 64, 69, 77, of the Library of Useful Knowledge. No school should be without them.

### Note 2.

It may be to the use of this machine that the Italians are indebted for the symmetry and straightness of their forms.

### Note 3.

It is frequently necessary to keep the head warm, particularly when the rest of the body is so, for if the head is cold and not covered when the other parts are enveloped in woollen or flannel clothing, a continued current of air will be produced, which will be the consequence of an unpleasant, and, perhaps, a tedious catarrh, and the disagreeable snuffling at the nose, so common to infants. The timely application of a warm cap or a little flannel often checks its progress.

### Note 4.

The advantages of frequent ablution, in regard to cleanliness, can not be too much insisted upon. But another benefit arises to the constitution. In case of internal congestion, when some of the viscera are loaded with blood, or when any internal part is inflamed, any means by which blood can be brought to the capillary vessels and to the surface of the body, must be, in no small degree, conducive to health, thus cold ablution, and afterwards friction, rubbing the surface over with some coarse cloth, will produce an agreeable warmth. There is no better preventative for colds. In affections of the chest, I have frequently seen the good effects of this plan; Sir Astley Cooper, in his lectures on surgery, speaks most favourably of the remedy, and instances his own personal experience as a proof of its salutary effects.

A patient of mine was once subject to frequent coughs and inflammations of the chest. Ten years ago he commenced the



plan of total ablution with a sponge and cold water every morning and night, and he never has had since a single attack of the kind.

Note 5.

The frequent washing of the mouth is the best preventative for the accumulation of tartar. When the disgusting effects of its accumulation are considered, it would appear impossible, that any persuasion could be necessary to induce persons to obviate so great a nuisance. Yet the sight and the smell are alike constantly outraged by the filthiness of people who seem to obtrude their faces the closer in proportion to the disgust which they occasion. The constant use of a tooth-brush will, in many cases, be sufficient to keep the teeth free from tartar. The brush should not be very hard, as it will not only be more difficult to clean the interstices between the teeth, the part in which tartar is most likely to be deposited, but by its friction, will occasion the gradual absorption of the gum, and the exposure of the necks of the teeth; the hair of the brush should be firm and elastic, and not too closely set. The teeth should be thoroughly brushed in every part, at least night and morning, and the mouth always rinsed after each meal. The application of strong mineral acids, for the purpose of assisting in the removal of the tartar, is to be deprecated as excessively injurious, as it dissolves the enamel and the earthy part of the bone, wherever it comes in contact with them. The immediate effect of the treatment is to render the teeth beautifully white, but, in a short time, the surface of the enamel being made rough, and, as it were, eroded, they become again discoloured, and if the application be frequently repeated, the bone is exposed and decay is the inevitable consequence.

The following are excellent preventative lotions :

Alum, one drachm and a half,  
Tincture of Myrrh, three drachms,  
Camphor Mixture, five ounces and a half, mix.

Port Wine, two ounces,  
Camphor Mixture, four ounces, mix.

Infusion of Roses, two ounces,  
Decoction of Cinchona Bark, four ounces, mix.

See "Diseases of the Teeth," by Thomas Bell, F. R. S.

Note 6.

"All children, without exception, have naturally worms in their bowels." This is not the case: but so common are certain worms in the human subject, that it is calculated one half of the total number of children have either the round or thread-worm.



The long round worm will sometimes remain so quiet as to give no signs of its existence but by its being discharged. Frequently, however, it is a troublesome and mischievous intruder, producing an intolerable feeling of faintness, great emaciation, swelled hard belly, gnawing or frequent pain in the stomach, pale countenance, fetid breath, and irritation of the nostrils, which are the general symptoms of worms in the stomach,—See *Fig. 2*.

The long thread-worm is about two inches long—it is found in great numbers in the intestines of sickly children,—See *Fig. 3*.

The long tape-worm inhabits the intestines of mankind generally at the upper end, where it feeds on the chyle and juices already animalized, and made a constituent part of the living body. It is found sometimes from thirty to forty feet long, and even sixty feet and upwards,—See *Fig. 1*.

The broad tape-worm inhabits, like the preceding, the upper part of the intestines, and feeds on the chyle, and is from three to fifteen feet long, and usually found in number three or four.

The following are the most effectual remedies:—

Rectified Oil of Turpentine, a fluid drachm,  
Castor Oil, a fluid drachm. Mix.

This may be given to an infant about a year old, and the dose may be increased in proportion to the age, and in like manner one of the following powders may be given, which is also a good remedy.

Pulvis Scammonii,  
Hydrargyri Submuriatis,  
Pulvis Jalapæ,  
Sulphatis Potassæ aa Grana quinque. Misce et divide in  
chartas quinque, una sumenda horâ somni.

#### Note 7.

“Does wine afford any real strength or nourishment to the healthy?”

To those engaged in any fatiguing and laborious employment, a stimulus is very beneficial. Sir Everard Home, in his Lectures on Comparative Anatomy, describes the reviving effects of a draught of porter, after being engaged for some time in dissecting an elephant at the College of Surgeons. The following passage is taken from Burchill's Travels in Africa.

“Of wine, there was but little remaining, and I had often experienced the beneficial effects of half a glass of this, the artificial stimulus of which, lent considerable assistance in renovating bodily strength, which had been too much exhausted by over-fatigue; those who have never been deprived of it, will not easily, without similar experience, form a just idea of the value of its possession on such occasions.



## Note 8.

"Is smoking of tobacco hurtful to health?"

Generally speaking it is, and particularly to the young. Many a thoughtless youth has impaired his constitution and lost "his buxom health of rosy hue" by this fashionable folly. It must not be forgotten that smoking is sometimes beneficial. I extract the following passage from one of the few medical works that are composed of facts founded on observation and experience.

"Although in other countries, smoking tobacco may be considered as an amusement, in Corfu, and indeed, all over the Ionian Isles, it may be fairly stated as an employment for the male sex, it is scarcely hyperbole to say, that the pipe is never out of their mouths. This practice must necessarily affect the stomach; but I am convinced that it enables the system better to resist the marsh miasmata, when persons are in their immediate vicinity. The fumes of tobacco create an artificial atmosphere round the individual who produces them—they obviate damps—they obviate ill smells, and they solicit a tranquil state of the mind, which in a very serious degree diminishes the chance of contracting infectious, or contagious diseases."—*Hennen's Medical Topography of Gibraltar and the Mediterranean.*

## Note 9.

"A bed in which a person died of quinsy, was the cause of the death of two others that slept in it after him."

A more perfect knowledge of the nervous system, and of the nature of the infecting effluvia and malaria, is requisite to decide positively what diseases are infectious, and what not so.

Many eminent medical men have considered consumption an infectious disease. Many erroneous opinions have arisen on this subject, from the liability to receive infection being so much dependant on the state of the constitution. A whole regiment of soldiers going to battle in health and cheerfulness, has escaped an infectious fever, which on its return dispirited and fatigued, has proved fatal to the greater part of it.

## Note 10.

## CHILBLAINS.

When there appears to exist a tendency to chilblains, let the hands and feet be dipped every morning in cold water; then wiped quite dry with a rough towel, and afterwards well rubbed with a little of the following liniment:

To four ounces of brandy, or rum, or gin, add a small quantity of soap, a bit of camphor, about a third part of the spirits of turpentine, and two tea-spoons full of tincture of opium.



This will restore the parts to a natural warmth, increase their circulation, and render them less liable to suffer from the effects of cold.

Note 10, p. 63.

#### THE BEST REMEDY FOR COLD.

The usual cause of cold is suppressed perspiration.

A warm sudorific drink with an additional blanket thrown over the bed to encourage perspiration, and some opening medicine will generally carry off the complaint. If the cough is troublesome at night, from five to ten grains of Dover's Powder—"Pulv. ipecacuanhæ compositæ,"—may be taken at bed time. If there be pain, or much oppression at the chest, recourse should be had to venesection, or bleeding.

Note 11.

#### THE MOST EFFECTUAL MEANS OF PRESERVING THE TEETH.

Fluids should never be taken into the mouth, or, at least, should not be applied to the teeth, either so hot or so cold, as to produce the slightest pain; and for the same reason, the water with which the mouth is cleansed, should in the winter, be always warm or tepid: the mouth should also be rinsed after each meal.

Note 12.

The best remedies for the tooth-ache. When it is recollected that tooth-ache is the result of inflammation in one of the most sensible, and highly organized structures in the body, it will not appear surprising that the application of remedies immediately in contact with the surface of this membrane, especially such irritating compounds as are generally recommended, should in most cases exacerbate, rather than sooth the irritation: even the best of them can only be considered as palliative, and in by far the majority of cases, scarcely deserve this faint praise. Amongst those, however, which I have at different times tried, the following are perhaps the most frequently useful.

Alum, one drachm.

*Spir. æther nitrici*—Sweet spirits of nitre, half an ounce.

Mix.

Acid muriatic, half a drachm.

Distilled water, two drachms. Mix.

*Argenti nitrat.*—Nitrate of silver, a grain.

Distilled water, one drachm. Mix.

A small bit of lint, wetted with either of these liquids, may be frequently introduced into the cavity, which should be carefully dried previous to each application.—*Bell on the Teeth.*



## Note 13.

## THE TREATMENT FOR BITES OF RABID DOGS.

The remedy to be useful must be almost instantaneous. Apply a red hot instrument, a knife, or even poker if only at hand, to the wound, and afterwards a cupping-glass, a substitute for which may be made by a common tumbler, and a wax taper.

## Note 14.

## THE FOLLOWING IS AN EXCELLENT DRINK IN FEVER.

"The juice of a lemon added to a quart of water, with some of the rind and a little sugar, will form a drink extremely grateful and refreshing. Or mix a table-spoonful of treacle with half a pint of water, and render it agreeably tart by the addition of a few drops of the spirits of salt, or muriatic acid. Of this acid mixture, thus cheaply and easily prepared, two table-spoonfuls may be taken every second or third hour. It allays thirst better, perhaps, than any other medicine—it cleans the tongue, strengthens the tone of the stomach, corrects putrescency, and in short, is of the greatest value as a general remedy, in fevers of every description."—*Grattan's Compendium of Medicine*.

## Note 15.

In the early stages of convalescence after fever, the appetite is often excessively urgent, and in some cases ravenous, and if indulged, a relapse of the disease must be expected, and not unfrequently, indiscretion of this kind has produced sudden and instantaneous death.

## Note 16.

## FOR FUMIGATING APARTMENTS.

The most efficacious substance for this purpose, is the gas called chlorine.

Take an ounce of common salt, pour on it half an ounce of oil of vitriol, (strong sulphuric acid,) apply a moderate heat, and close the room in order to confine the vapour. The chlorides of lime and of soda, diluted with pure water, and sprinkled about the chamber, is an excellent method for destroying impure air.

## Note 17.

Vinegar and water suddenly applied cold to the breast of a delicate female, would be painful and dangerous; it may be warmed at first and gradually used of a lower temperature.



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