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NATIONAL HEALTH MANUALS

YOUTH

EDITED BY

T. N. KELYNACK, M.D.

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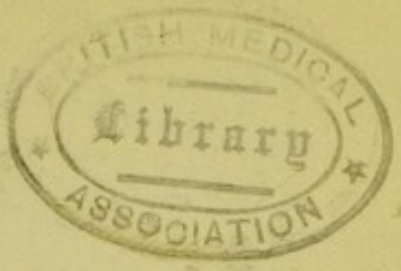

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NATIONAL HEALTH MANUALS

BRITISH MEDICAL ASSOCIATION Library

YOUTH

EDITED BY

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PREFACE

THE NATIONAL HEALTH MANUALS, of which this volume is the fourth, have been designed and prepared for those interested or engaged in social service. The aim has been to provide in concise language and compact form essential facts, and to indicate in simple, non-technical words governing principles, a knowledge of which affords the only reliable guidance to reasonable thought and rational conduct in the preservation of health and the prevention of disease.

Each volume of the series deals with a more or less special aspect of personal, domestic, or national well-being. In order to secure the most trustworthy and helpful treatment of the subjects presented, the preparation of each chapter has been allocated to a medical expert.

It is believed that both in arrangement and in matter these manuals will be of practical assistance to all engaged in efforts for human betterment. It is hoped that these little books will be used in connexion with social service organizations, guilds of help, reading and study circles, as well as consulted by individual workers. In order that information and guidance may be provided for those desirous of more extensive investigation of the subjects under discussion, there

have been added in appendices select bibliographies of works useful for reference and study.

We are still in the experimental stage in regard to most matters relating to so-called social reforms, and there is a danger that in our eagerness and enthusiasm to initiate and conduct new movements, which are intended to make for individual improvement and national betterment, we may be led into serious errors or be guilty of deficiencies and extravagances which will inevitably hinder progress. Social advance must be based upon and governed by scientific principles. To indicate and to explain these is the main purpose of these manuals.

The present volume deals with the problems of Youth. The subjects of Infancy, Childhood, and School Life have been dealt with in the preceding volumes of the series.

Each writer has been granted a free hand in treating his or her particular subject, and is, of course, responsible only for the chapter contributed. As far as possible, overlapping and repetition have been avoided, and even when this has apparently not been entirely realized, it will generally be found that the point of view is different.

To all who have so willingly co-operated in the production of this volume grateful thanks are accorded.

T. N. KELYNACK.

139, HARLEY STREET,
LONDON, W.

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YOUTH: AN INTRODUCTION

THE EDITOR

Remember now thy Creator in the days of thy youth.

ECCLESIASTES XII. 1.

The Youth of the Nation are the trustees of posterity.

EARL OF BEACONSFIELD.

There is a feeling of Eternity in youth which makes us amends for everything. To be young is to be as one of the immortals.

WILLIAM HAZLITT.

So nigh is grandeur to our dust,
So near is God to Man,
When Duty whispers low 'Thou must'
The Youth replies 'I can.'

EMERSON.

Grow old along with me!
The best is yet to be,
The last of life, for which the first was made:
Our times are in His hand
Who saith, 'A whole I planned,'
Youth shows but half; trust God: see all
Nor be afraid!

ROBERT BROWNING.

Discretion guide thee on the way, nobly-minded youth,
Help thee to humour infirmities, to wink at innocent errors,
To take small count of forms, to bear with prejudice and fancy;
Discretion guard thy asking, discretion aid thine answer.
Teach thee that well-timed silence hath more eloquence than speech,
Whisper thee, thou art Weakness, though thy cause be Strength.

MARTIN TUPPER.

I

YOUTH: AN INTRODUCTION

YOUTH is generally defined as a state or process of growing up from childhood to manhood or womanhood, the period of life between puberty and maturity, and its limits are usually considered to be in the male sex from fourteen to twenty-five years of age, and in the female sex from twelve to twenty-one. Youth or the period of adolescence is a transition, a developmental stage, with no definitely defined boundaries. Some have sought for convenience to divide it into the pubertal or early adolescent period, and later adolescence. All such divisions must be more or less arbitrary.

Dr. Stanley Hall has furnished us with the most complete scientific study of Youth. The following is a quotation from his classic work: 'Adolescence is a new birth, for the higher and more completely human traits are now born. . . . The child comes from and harks back to a remoter past; the adolescent is neo-atavistic, and in him the later acquisitions of the race slowly become prepotent. Development is less gradual and more saltatory, suggestive of some ancient period of storm and stress when old moorings were broken

and a higher level attained. The annual rate of growth in height, weight, and strength is increased and often doubled, and even more. Important functions previously non-existent arise. Growth of parts and organs loses its former proportions, some permanently and some for a season. Some of these are still growing in old age and others are soon arrested and atrophy. The old moduli of dimensions become obsolete, and old harmonies are broken. The range of individual differences and average errors in all physical measurements and all psychic tests increases. Some linger long in the childish stage and advance late or slowly, while others push on with a sudden outburst of impulsion to early maturity. . . . Modern life is hard, and in many respects increasingly so, on youth. Home, school, church fail to recognize its nature and needs and, perhaps most of all, its perils.'

And yet youth, as Dr. Stanley Hall further tells us, is ' the golden age of adult influence, provided one is wise enough not to offend.' Youth is the season of plasticity and reasonableness. In adolescent days life-long impressions are made. As Dr. F. H. Hayward insists: ' Reason, conscience, and will develop, at this period of life, an enormous momentum. It is the time of doubt—and doubt means reason; the time of hero-worship—and hero-worship means conscience; the time of friction against environment—and such friction means will. Take all three together and they give us personality. Adolescence is the *first* period in life when the teacher has to deal with a complete personality. Under our present civilization it is the *last* period of life when plasticity survives.

Hence its portentous importance. It is the meeting-place of the two seemingly opposed factors which, in the miracle of evolution, have come to be united in man—the inner and the outer, personality and plasticity. Growth is neither from within nor from without, but from both.'

Adolescence is the blossom-period of life, the spring-time of the soul. The early years of youth are marked by rapid and wonderful development. Physical growth is conspicuous, intellectual powers are advancing, and great spiritual truths are being apprehended. The youth awakens to a new consciousness, realizes personal responsibilities, recognizes the claims of family discipline and duty and social relationships, and is influenced by longings and aspirations for the Supreme Good. This momentous stage of adolescence is one of astonishing evolution : it is a transition state characterised by physical and mental restlessness and moral instability. Wilfulness, self-assertion, emotional manifestations and perplexing unreasonableness are often in evidence ; while powers of conscience and forces shaping character and directing conduct are active, passion slumbers, and altruistic tendencies are leading to the shaping of desires and planning for action. Youth is the time when new motives are born and ideals guide and govern, when reverence appears and duty calls, and life is inspired by great and good personalities and causes. Youth stretches out strenuous hands towards God. But in youth the struggle between the powers of Light and Love and the forces of Darkness and Death becomes very real, and life-wounds are oftentimes received. This is the epoch when Religion may safeguard and

inspire, deepen and develop the noblest divinity which shapes each end for truest service.

Infancy, childhood, and school life are receiving scientific study and time, talents and much money are being freely devoted to the protection and rational direction of life's opening years. But until recently comparatively little serious thought or rational action have been devoted to the investigation of the racial instincts, personal needs, physical necessities, mental powers, moral aspirations, civic value, and religious requirements of the adolescent.

The objects of this little volume are to present a plea for the consideration of youth, and to offer arguments for reasonable safeguarding and guidance throughout the unstable, perplexing, dangerous, and yet all-important developmental period of adolescence.

The problems of adolescence demand and deserve the fullest and most sympathetic study, for it must never be forgotten that every life possesses—

> Meanings which it brought
> From years of youth.

II

GROWTH AND DEVELOPMENT IN YOUTH

SIR JAMES CRICHTON BROWNE, M.D., LL.D., D.Sc., F.R.S., F.R.S.E.

Lord Chancellor's Visitor in Lunacy; Vice-President and Treasurer of the Royal Institution of Great Britain; Author of 'Dreamy Mental States,' &c.

Rejoice, O young man in thy youth; and let thy heart cheer thee in the days of thy youth.

ECCLESIASTES XI. 9.

Let no man despise thy youth.

ST. PAUL.

The mind
Even from the Body's Purity,
Receives a secret sympathetic aid.

THOMSON.

Health is that state in which the body is not consciously present to us; the state in which work is easy; and duty not over-great a trial; the state in which it is a joy to see, to think, to feel, and to be.

SIR ANDREW CLARK.

The prosperity of a country depends not on the abundance of its revenue, nor on the strength of its fortifications, nor on the beauty of its public buildings; but it consists in the number of its cultivated citizens, in its men of education, enlightenment and character.

MARTIN LUTHER.

He serves his country best
Who joins the tide that lifts her nobly on;
Who lives pure life, and doeth righteous deed,
And walks straight paths, however others stray,
And leaves his sons as uttermost bequest,
A stainless record which all men may read.
And man by man, each giving to the rest,
Makes the firm bulwarks of the country's power.
There is no better way.

SUSAN COOLIDGE.

II

GROWTH AND DEVELOPMENT IN YOUTH

ACCORDING to a sixteenth-century song, 'Youth is full of sport, Age's breath is short.' Youth is the period of life's most important physical growth and mental development. Many years ago I defined education as 'the guidance of growth.' Certainly during the years of adolescence much understanding and wisdom is necessary if youth is to enter safely and fully into its kingdom.

President Stanley Hall, to whom we owe much for his epoch-making studies of the problems which relate to youth, gives us a striking outline of the leading characteristics of this period. 'Adolescence is a term now applied to a pretty well-marked stage, beginning at about thirteen with girls and a year later with boys, and lasting about ten years, to the period of complete sexual maturity. It is subdivided into pubescence, the first two years; youth proper, from sixteen to twenty in boys and perhaps fifteen to nineteen in girls; and a finishing stage through the early twenties. The first stage is marked by a great increase in the rate of growth in

both height and weight. It is a period of greater susceptibility to sickness for both sexes; but this vulnerability is due to the great changes, and the death-rate is lower in the early teens than at any other age. It is the time when there is the most rapid development of the heart and all the feelings and emotions. Fear, anger, love, pity, jealousy, emulation, ambition and sympathy are either now born or springing into their most intense life. Now young people are interested in adults, and one of their strong passions is to be treated as if they were mature. They desire to know, do, and be all that becomes a man or a woman. Childhood is ending, and plans for future vocations now spring into existence, and slowly grow definite and controlling.'

The Evolution of the Adolescent

All recent observations on growth, and especially those of Professor Minot, of the Harvard Medical School, go to show that the early period of life is the period of rapid growth, and that the rate of growth diminishes as life goes on. Nutrition consists in the maintenance of a living part; growth implies an active nutritive process resulting in an increase of dimensions; development, besides nutrition and growth, involves change of form or structure. As regards growth, 'it consists essentially in the multiplication of cells, and when the animal grows it is its actual substance that increases, and so we might expect that given so much substance the rate of growth would be more or less constant. If the rate of growth were constant it would take an animal at every age just the same length of time to add 10 per

cent. to its weight. It would not be a question whether a baby grew an ounce in a given length of time and a boy a pound in the same time, for the pound might not be the same percentage of advance on the weight of the boy that the ounce would be on the weight of the baby. In reality, with its advance of an ounce the baby might be growing faster than the boy with the advance of a pound.'

As regards the rate of growth in man, we do not possess such an adequate series of statistics as is desirable. We have a considerable number of records of the weight of babies from birth up to one year of age. We have also numerous records of the weights of school children ranging from five up to eighteen or nineteen years of age. There are a few records of youths at universities, and of girls at colleges. But there are big gaps to be filled up, and no more useful task could be performed by all interested in child study than the collection of accurate information on child growth. It seems extraordinary that in this enlightened age no general system of family or school registers for vital facts should have been adopted. As regards our elementary schools, the results of medical inspection are already affording information of incalculable value, but as regards the family, I do not believe that there has been as yet any systematic attempt to preserve annals. Even the ancient and meagre records of the family Bible have gone out of fashion, and men and women for the most part set out on life with only the scantiest knowledge of their own antecedents and capabilities. What is wanted is a life-chart for every man and woman, which shall faithfully

set forth their origin, and trace out their voyage, marking their rates of sailing at various times and under varying conditions, the rocks and shoals they have encountered, the favouring currents that have carried them on. The chart should include all the returns of the educational school register, but should go far beyond these, recording height, and weight at birth and at regular intervals thereafter, the date of vaccination and of weaning, and of the appearance of the several teeth, the names and durations of all diseases that have been experienced, and other facts calculated to throw light on physiological development and morbid tendencies. The bungling that takes place over the filling up of the simplest returns, the indifference to vital history which leaves tens of thousands of people in ignorance of their own age, the folly which leads so many to repudiate, even to their medical men, family complaints well known to them, do not encourage the hope that we shall soon see life-charts in general use; but there is in some quarters a growing recognition of the truth that a man's present is the outcome of his past, and that he must know his past in order to control his future, and that he cannot expect to understand his moral and mental biography without a valid calendar of his physical organization. If a few cultivated people will make a beginning the custom will spread.

The growth of different parts of the animal body is controlled by internal secretions or hormones, the products of various glands. In the absence of certain specific secretions the growth of certain parts or structures is continued far beyond the normal limit or the limit of utility. Thus in an impaired state of

the pituitary body, a small reddish-brown mass occupying the sella turcica of the sphenoid bone at the base of the skull, we have acromegally, a disease characterised by a true hypertrophy or overgrowth, involving both bony and soft tissues, of the terminal parts of the body, especially of the face and extremities, causing gigantesque deformity. But in the absence of other specific secretions the growth of the body as a whole, and in different degrees of its component parts, is stunted or arrested. Where there is deficiency of the normal secretion of the thyroid gland we have cretinism, characterised by an arrest in body growth and mental development. Where the gland is congenitally absent, or is atrophied or the seat of a goitre, the child, when eighteen months or two years old, exhibits uncouth form and mental hebetude, and subsequently displays the deformities and dwarfishness characteristic of the condition. The cretin rarely exceeds 4 feet in height, and is often less than 3 feet. The skeleton is imperfectly developed, especially in the long bones, the skin is thick and hangs in folds, the hair is coarse, the features are flabby, misshapen, and expressive of mental vacancy, and every organ is implicated in the blighted or distorted growth. When the thyroid secretion is withdrawn in adult life, owing to atrophy or degeneration of the gland, we have myxœdema, in which there is a marked increase in the bulk and weight of the body, puffiness of the skin, thickening of the features, loss of hair, and progressive mental debility.

With two exceptions every organ in the body does grow during the passage from infancy to maturity.

The exceptions are the suprarenal capsules and a gland in the chest called the thymus gland, bodies which have evidently an important but still undefined *rôle* to support in relation to nutrition in fœtal life and in early infancy, but which having served their turn are superannuated and wither away. All the other organs are absolutely heavier in adult years than in infancy; but while some of them, the lungs, the stomach and the spleen, retain their original proportionate weight to the body as a whole, others, the liver, the heart, the kidneys, and the salivary glands, show a decrease in proportion to the body weight as a whole. And of all the organs that show decrease, that is most marked in the brain. The increase in the weight of the body as a whole, from birth to maturity, is twenty-fold, but the increase in the weight of the brain is only threefold.

Characteristics of Youth

It is remarkable how little space is allotted in works on pædealvics and pedagogy to any helpful statement of the facts of adolescence. Much space is devoted to the ailments of infancy and the diseases of childhood, but little seems to be known or, at all events, has been written on the physiology and pathology of adolescence.

If rational guidance is to be afforded to youth, cognizance of the fundamental facts of youth must be available. In providing conditions for fullest growth we must know something of the normal phenomena of adolescence, the physical and psychical characteristics of youth.

During adolescence growth, both as regards height and weight, is irregular. The various parts of the body do not develop in equal ratio. The brain almost ceases to increase in mere size and weight about puberty, while the reproductive organs, the bones and muscles grow rapidly. 'The age of most rapid growth in any part is called its nascent period.' The maximal size and development of the various parts of the body are reached at different ages. While it is true that every individual tends to ascend his own ancestral tree, it must be remembered that in man the phylogenetic order may undergo change. Generally speaking, the individual in his growth more or less repeats or recapitulates the growth stages of his race, but there may be inversions, or whole chapters may be dropped.

No feature of growth in youth is more remarkable than the rapid and considerable increase which occurs in motor power and function. This requires careful consideration by all those who have to advise in regard to physical exercises, sports, and the selection and direction of occupations.

The Guidance of Youth

Space does not permit me to dwell on the remarkable unfolding of psychical powers which characterize the later stages of adolescence. These will be dealt with in other chapters of this manual. I may be permitted, however, to quote the valuable summary of advice which Professor J. J. Findlay has formulated: 'If one had to give advice to those who are to take the charge of youth, we might urge, first, that normal submission to custom and environment

should be enforced, but that variation and even eccentricity should not be too harshly judged; secondly, that variety of outlook and experience, both of men and of things, should be afforded; above all, that the best of these, both the personal influence of sympathetic and generous teachers and the guidance of the best in literature, science, and the arts should be presented. Much will be rejected, but what is retained will be retained for life, and the gratitude of youth to those who provide it with discipline and sympathy is boundless.'

In the long, I had almost said the tragic history of childhood and youth in the past, it has been the all but exclusive attention bestowed on the cult of the mind to the neglect of the body that has been responsible for immeasurable suffering, failure, and futility. But we have awakened now to the obligation —the imperative obligation—of studying both cults together and of correlating them as far as possible. Hygiene is to the fore. Athleticism is in the ascendant, and there is a danger that in some quarters the spiritual nature is being crushed out by the pampered exuberance of the corporeal.

Let us remember the words of Francis Bacon, in his essay 'On Youth and Age':

'A man that is young in years may be old in hours if he have lost no time; but that happeneth rarely. Generally, youth is like the first cogitations, not so wise as the second: for there is a youth in thoughts, as well as in ages; and yet the invention of young men is more lively than that of old; the imaginations stream into their minds better, and, as it were, more divinely.'

III

THE PSYCHOLOGY OF YOUTH

SIR THOMAS CLOUSTON, M.D., LL.D.

Late Physician Superintendent to the Royal Asylum, Morningside, Edinburgh, and Lecturer on Mental Diseases in the University of Edinburgh; Author of 'The Neuroses of Development,' 'The Hygiene of Mind,' &c.

In my flower of youth.

MILTON.

If you happen to be beaten return to the charge.

MARCUS AURELIUS.

Greatly begin, though thou have time
But for a line—be that sublime.

LOWELL.

Of all things, my boy, keep your face to the sun. You can't shine of yourself, you can't be good of yourself; but God has made you able to turn to the sun, whence all goodness and all shining comes.

GEORGE MACDONALD.

A sacred burden is the life ye bear;
Look on it, lift it, bear it solemnly;
Stand up and walk beneath it steadfastly,
Fail not for sorrow, falter not for sin;
But onward, upward, till the goal ye win,
God guard ye, and God guide ye on your way,
Young pilgrim warriors who set forth to-day.

F. A. KEMBLE.

Do to-day's duty, fight to-day's temptation, and do not weaken and distract yourself by looking forward to things which you cannot see, and could not understand if you saw them.

C. KINGSLEY.

III

THE PSYCHOLOGY OF YOUTH

YOUTH has its own distinctive psychological, as well as physiological, characteristics, and its psychology cannot be dissociated from its physiology. Both depend entirely on three conditions: first, the individual and racial heredity; second, the environment; and third, the processes of education, although, strictly speaking, number three is a part of number two. Environment, as applied to a living being, should mean everything outside that being that has any relationship whatever to it which, consciously or unconsciously, affects the individual. The heredity determines the original qualities of the brain and mind, their capacities, their powers and kinds of reaction, most of its defects, and many of the diseases to which they will be subject.

PSYCHO-PHYSIOLOGICAL CONSIDERATIONS.

Modern physiological and psychological science assumes that the brain is the organ of mind, and the sole vehicle through which, in this world at least, the mind works. There is a direct parallelism between the two. Whatever affects the brain affects

the mind; whatever affects the mind affects the brain. Therefore, in considering the psychology of youth, we must take the brain into account primarily. If from heredity we have a bad brain, we shall necessarily have a bad mind. If we have a good brain we shall have, at all events, the potentialities of a good and efficient mind. A study of the development of the brain in youth will give us the key to most facts that need consideration in studying the youthful mind and in taking measures for its proper education and treatment. The growth and development of the brain may be divided into three periods. First, there is that of childhood, from one to seven years, the age when the organ is growing in bulk and also developing in its initial and organic qualities. The average weight of a child's brain at birth is 13·8 ounces, and it has reached a weight of about 47 ounces at seven or eight years of age. One peculiarity of the brain is this: that, although at maturity, when it weighs 49½ ounces, it is the most complicated, the most delicate, and the most highly organized thing in nature, and possesses about 3,000,000,000 nerve cells with as many fibres and an enormous supply of blood-vessels, yet at birth, when it only weighs about one quarter as much, it has the rudiments within it of all those cells, and of all its other structures, although for the most part in an undeveloped condition. How those are to grow, how they are to develop normally their incalculably important functions and how they are to do their work, are the questions on which the whole life, bodily and mental, of the man or woman depends. It is thus seen that the period of childhood is that in which the growth

in bulk chiefly takes place, but the development of the higher mental functions is left to the period after childhood. The machinery is getting ready, as it were. It has to be got to work and co-ordinate the one part with the other. Mind does not exist at birth. It has to be gradually developed as its machinery is perfected. The second great period in the life of the brain and the development of the mind is that of boyhood and girlhood, from seven years of age to fourteen or fifteen. That is the stage in which the school manual may be of service. The third period is that of adolescence, which occurs between the ages of about fifteen and twenty-five. I shall devote this chapter chiefly to the consideration of the two later periods. They have much in common, but also very much that is distinctive.

Early Mental Development

We are chiefly indebted to Darwin, Hitzig, and Taine for our knowledge of the order of appearance of the mental faculties in babyhood, and to Darwin primarily and especially. Darwin showed that conscious feelings of pleasure and their automatic manifestations, through smiling and other muscular movements, appeared first; then we see purposive muscular movements appearing. The elements of speech in the shape of vowel sounds then appear. Imitation and curiosity, the great educative faculties of young children, are seen about the fifth or sixth month; anger is manifested at about ten weeks, the evidence of violent passion at four months; sympathy at six months; jealousy at fifteen months;

while anything that can be called reason is only observed after a hundred days have elapsed. In some things the child of seven has stronger faculties than the grown-up man ; those are imitativeness, curiosity, a desire to attract the attention of others, and especially to make them laugh, and efforts to please. I believe that education, in the technical sense, is almost wasted and should not be undertaken seriously before seven years of age. There is no practical use before that time of trying to force abstract ideas, religious or moral. A sense of reverence for God, for parents, for the great powers of Nature, should be promoted. Feelings of wonder and pleasure in beautiful scenery, in the sun, in animals and flowers, in a vague form can then undoubtedly be initiated. The great faculty of speech, that most astonishing combination of mental expression through bodily means, should be carefully cultivated in the childhood period. The number of words may be few, but a definite meaning should be attached to each, and it is of the highest importance that clear intonation and accurate articulation should be sedulously taught and practised. It should never be forgotten that the great sources of education during the child period of life, as well as afterwards, consist in the constant inrush of stimuli to the brain from the senses, especially those of sight and hearing. A child without those two senses is necessarily dumb, and the mind remains in a condition of non-development and of virtual idiocy, as in the cases of Laura Bridgeman and Helen Keller. The time of the development of speech differs greatly in different children—this resulting from hereditary qualities.

One child will speak with reasonable clearness at eighteen months, another will scarcely do so at eight years of age. The last I am in the habit of calling a postponement of the speech faculty, which may, however, develop to a normal amount even after that age. The social faculties, altruism, and unselfishness, which are best taught by the association of a number of children in a family, can be fairly well established before seven. Deterrents, punishments, and rewards are applicable after two years of age. System, order, and punctuality can be established and are of immense importance during the child-period of life, and should be applied to play, meals, sleep, exercise, and employments. The more acute and advanced the child's brain and mind are, the greater importance it is that such order, &c., should be applied. The essential qualities of children should be studied, their temperament, their strong points, their weak points, and their reactions generally to outward impressions should be carefully taken into account. Prolonged sleep and proper food, with abundance of fresh air, with good example, are really the three most powerful agencies during the child period.

Development in Boyhood and Girlhood.

The psychology of boyhood and girlhood, during the school period, has had innumerable students, and dogmatic precepts and dicta regarding it are innumerable, but most diverse. Physiological and medical aims of study and of treatment of the period have, in the last fifty years, been having a look in, and they are profoundly modifying the purely scholastic and

parental views and practices. The first thing that is observed when the school age begins after seven, is the more accurate co-ordination of mind and muscle which takes the form chiefly of exact movements in playing games, writing, running, walking, the use of tools, sewing, knitting, &c. All those may become nearly perfect by the age of fifteen. I saw a boy in Cairo using every finger of his two hands, every muscle of his arms, and the toes of one foot with such accurate co-ordination that he was turning out the most delicate balls and spindles of hard wood to form beautiful meshrebiya work. He was turning those out with extraordinary speed and making as much money as any grown man in the factory. He came of a guild that for generations had done nothing but make such work, and his education in it had begun at ten. The basis of doing such work exists in the shape of groups of brain cells gathered together in ' centres ' for the hands and the feet, with the development of fibres connecting the different groups which is going on all the time of the process. A man or woman would be an awkward and ineffective machine but for the muscular co-ordinations learned at this period of life. Slowly acquired at first, they become a brain habit with an almost automatic performance afterwards. The effective learning of this co-ordination at that time of life is one of the surest foundations for a hygiene of mind, and a most important aid to mental health and effectiveness in the future lives of the schoolboy and the schoolgirl. The will-power that influences all the future life must be strongly called in to control those muscular movements.

As the foundation of the ability to do such muscular

co-ordinations, there exists at this period of life a ceaseless muscular activity. This comes, not from the muscles themselves, which may be well developed but quite lethargic, but from the brain and its countless numbers of motor nerve cells. If this muscular activity is bottled up it is apt to take explosive and mischievous forms. This 'necessity to energize,' as I call it, is a physiological and psychological quality. It is present, but must be regulated and to a certain extent controlled if the education is to be effective; hence the necessity for regulated games during school life.

The great mental characteristic of the school period is recklessness. Fear is the strongest protective instinct, and it has not then arisen sufficiently to control dangerous action. Cruelty to each other is then exceedingly prevalent, and sympathy is almost dormant, in boys at least. This is not an originating period of life, it is that of imitation and conservatism. To most boys an alteration or a disregard of the rules of the game is an unpardonable sin, and the boy who departs from the routine is mostly considered a 'fool.' Hughes says, 'Boys follow one another in herds like sheep.' The spirit of adventure and romance, mostly of an impracticable and foolish kind, is then strong, the imagination is active, castles in the air swarm, boys and girls all 'play at life.' The literature that is then craved for is *Robinson Crusoe*, and the works of Ballantyne and Marryat. For girls no such literature has, as yet, curiously enough, been devised, but the girl's fancies are apt to have a different setting. She thinks herself a grown-up perhaps a queen, clad in gorgeous robes, having a

splendid castle with innumerable servants, and heroes of the male sex adoring her. Nascent wifehood, motherhood, hero-worship are much in evidence. Dolls and their treatment materialize her fancies and potentialities. There is a combination of frankness and reserve during the school period. The humour is peculiar. It takes the form of rollicking fun and practical joking or rough cruel speeches.

At or about puberty the faculty of control is imperfect and fluid. The moral character is only in the process of making, conduct is chiefly regulated by rules, traditions, and the fear of punishment, rather than by principles and morals. The proper use of punishment to prevent evil and of incitements to do work is one of the exceedingly difficult principles to apply. They depend primarily on the temperament of each individual boy or girl and also on the social class and home experiences. The more nervous and highly-strung need especial care in the application of punishments which may terrorize or harden. Punishments causing severe pain should not be applied to children of a nervous constitution at all. They are apt to produce a deceitful disposition which may ruin the after life. Children, however, must be looked at from the evolutionary point of view. To a large extent they are in the stage of primitive and savage man, and at that stage it is not to be denied that punishment is almost the only mode of producing social order, which, either among boys and girls, or among communities of men and women, must be maintained somehow.

There is one mental faculty which should be sedulously cultivated at this stage of life, and that is the

using of their senses efficiently and of registering in the brain what those senses tell them. The power of observation of natural objects is then easy, and should be a delight to every boy and girl. The man or woman so taught to use this faculty derives benefit and pleasure from it all their life. It is a great foundation of general education. They should be taught not only to observe, but to observe accurately, and to have the power of accurate description of what they have seen ; this not only tends to happiness but to the efficiency of life afterwards. The Scout Movement is going to do a great deal to develop this power of observation of our future citizens.

I believe that the association of boys and girls for a certain time every day with their elders, with fathers and mothers and older people, hearing their conversation and observing their mode of life, has an extraordinarily good effect on them. This is not sufficiently taken account of in public school life, and is one of its present essential weaknesses. Its effects may be unconscious, but they are altogether for good if the older people are what they ought to be. There are a great many weaknesses almost peculiar to this age —cruelty, bullying, a certain kind of inconsiderateness, hardness of heart on some points, resentment of rules, an ignorant contempt of their teachers, vanity, and a senseless hero-worship in the girls, but under proper influences and environments in the adolescent stage those are mostly got rid of. The schoolboy and schoolgirl should be well fed, but not on too stimulating a diet, and live as much as possible in the sunshine and fresh air, should have a large amount of sleep, nine and a half to ten hours at least, and a close study

of developing weaknesses of constitution on the part of the teacher, the parents and the school doctor should take place.

Religion should always be associated with duty, manners should be sedulously cultivated, self-control should, at home and in school, be most earnestly inculcated and developed. If, among our toiling millions, good manners and self-control had been efficiently taught at home and in school, what a different world we should have!

Mental and Moral Powers in Adolescence.

The period of youth, that of adolescence, is the most interesting and the most important of all developmental stages, because during it the highest mental and moral qualities are developing, complete manliness and womanliness are attained, the full power of citizenship is arrived at, and the full capacity for fatherhood and motherhood is reached. Sex, with all that it implies socially, morally and physically, has come and is going on to its full influences on life. In the man during this period the development is in the direction of energizing, thinking, discovering, ruling. In the woman the direction is towards feeling, altruism, home-life, motherhood, protection, sympathy and gaining approbation. Though the brain has practically ceased to grow in bulk its qualities are exceedingly different and higher at twenty-five than at fifteen. Many hereditary strong and weak points, not seen before, then come out to fortify or to damage the life. Character, conduct, morals and religious motive come to perfection. High

ideals are formed and practically influence both the man and the woman. True imagination takes the place of mere fancy; an appreciation of the higher literature is possible. The Bible, the works of Shakespeare, Thackeray, and other masters, and the influence of poetry, begin to be really understood. Nature, the teacher, the University professor, and the experience of life must then turn out men for work in life and women to be good mothers and heads of families. Those various influences have failed if they do not produce good citizens and good mothers. Life must at the end of the period become real and strenuous. For all those things a good heredity and good health are necessary. Even if women do not become mothers they must not cease to be feminine. During this period the female sex especially is keen, eager, and in many cases hard-working, and hyper-conscientious. The woman-student is apt to take too much out of herself and become liable at this period to various nervous affections. Neurasthenia, hysteria, and even mental disorder, to which last the male adolescent is almost equally subject—often become manifest. Bad and good hereditary influences are then apt to come out to make or mar the life. Ambition in the man often leads to tasks which turn out to be impossible. If in the man or woman there is a bad nervous heredity, and if the environments and experience of life have not been hygienic, mentally and bodily, the foundations of disease are often laid and a maimed, distorted, and unhappy existence is afterwards led. Conditions that then arise are often final in their effects. Apart from actual nervous or mental diseases, there may be conditions of indolence,

laziness, ineptitude or even immorality. The power of digesting and assimilating food may be impaired, there may be foolish and impulsive actions, cravings for drink or drugs, perversions of the moral sense, perverted instincts, unfounded aversions to relations and friends without the power of getting on with them, and changed social instincts during this period. Dissipations of every form may be yielded to. I have always tried to impress on my students that this is a 'critical' period and should be watched and guarded very carefully, so far as that is possible. I have known suicide then attempted. The biographies of many great men, especially the poets, are full of illustrations of the truths which I have been laying down. There is apt to be undue and wrongly directed efforts to obtain pleasures in all directions during this period, that has to be paid for in after life. A drain is made on futurity which may lead to premature old age, or, what is even worse, to being a burden and a nuisance to society. Children may be born that have all the evil characteristics of the parents accentuated. Sometimes evil periodicities in regard to health, morals, and conduct are established.

To obey the laws of nature and the Ten Commandments, to be as much in the fresh air as possible, with regular exercise, to have the mind and body healthily employed, to notice and take in time nervous derangements and disorders of nutrition that may lead to tuberculosis, to cultivate healthy friendships, to read healthy literature, and to practise system, orderliness, punctuality, and moderation in all things, really seem to be the chief hygienic conditions of the adolescent period of life.

IV

THE HYGIENE OF THE ADOLESCENT GIRL

MRS. ALICE M. BURN, M.B., D.P.H.

Assistant Medical Officer of Health and Assistant School Medical Officer, Cheltenham; Late Assistant School Medical Officer to the County Council of Durham; Formerly Resident Medical Officer, Wycombe Abbey School for Girls.

Be sober and temperate, and you will be healthy.

BENJAMIN FRANKLIN.

Experience is the best of schoolmasters, only the school fees are heavy.

CARLYLE.

'Tis in ourselves that we are thus or thus ;
Our bodies are our gardens, to which
Our wills are gardeners.

SHAKESPEARE.

Evil habit first draws, and then drags, and then drives.

COLERIDGE.

Habits are soon assumed, but when we strive to cast them off, 'tis being flayed alive. COWPER.

Cleanliness and order are not matters of instinct ; they are matters of education, and, like most great things—mathematics and classics—you must cultivate a taste for them.

EARL OF BEACONSFIELD.

What asks our Father of His children, save
Justice and mercy and humility,
A reasonable service of good deeds,
Pure living, tenderness to human needs,
Reverence, and trust, and prayer for light to see
The Master's footprints in our daily ways ?
No knotted scourge, nor sacrificial knife,
But the calm beauty of an ordered life,
Whose every breathing is unworded praise.

J. G. WHITTIER.

IV

THE HYGIENE OF THE ADOLESCENT GIRL

THE Hygiene of Adolescence is three parts psychological and only one part physiological. The question of personal hygiene in the adolescent girl offers special problems for consideration.

PHYSIOLOGICAL CONSIDERATIONS

From the physical standpoint alone the Hygiene of the Adolescent Girl as distinct from the hygiene of other age periods practically resolves itself into a survey of those physical changes incident on the approach of puberty and the establishment of sexual activities. To the normal girl rationally brought up from infancy and with a healthy inheritance the establishment of the menstrual function is unaccompanied by serious disorder. I wish to emphasize the fact that the normal girl is the natural girl, for, as Quessel said two centuries ago, Nature is only universal hygiene, and the child who has been lucky enough to live under conditions which approximate to the ideal will present no physical complexities to puzzle our understanding and tax our hygienic

ingenuity. If habits of sleep, work, rest, exercise, diet and clothing have been adequately provided for, the normal adolescent asks no such special hygienic considerations as warrant a detailed reference here. To the normal girl, adolescence comes practically unannounced. Internal secretions have automatically initiated the changes of puberty, and the quiet growth and development of the pelvic organs and other organs of sex proceed in unconscious orderliness. Developmental changes are noted by the girl with normal interest from time to time, and as regularly forgotten; periodic phenomena temporarily concentrate her attention on matters of sex and womanhood, and are as periodically dropped out of memory. A little lassitude, a little vague abdominal uneasiness, and nature's gentle events are heralded and passed with little or no disturbance of the routine work and play. Scarcely any modification of the day is required, except possibly in the direction of securing abundant sleep and warmth. Such is true of the normal girl, wholesome in mind as well as body, and with a generous margin of physical health and vigour. If wisely brought up, she will have long ago been familiarized with all those physical facts of sex and womanhood which give meaning and gracious significance to the changes now experienced, and to whom therefore everything comes as a matter of course. Sex has not been made mysterious, not to say vicious, by refusing satisfaction to the natural curiosity of her age. Timid references and shamefaced inquiries have not thrown out of all proportion the natural and perfectly wholesome attention which the adolescent inevitably gives to matters of sex.

Hygiene and Education

Here lies the crux of the problem. Every factor in Hygiene and Education which intensifies this natural concentration demands our careful consideration and wise control; every factor which minimizes it, and provides adequate and effective means for the evaporation and sublimation of the great creative forces now expressing themselves in the physical sex of the adolescent should be utilized and encouraged with infinite tact and judgment. But it must be admitted that the placid picture of sane and wholesome adolescence outlined above is rarely met with. Only a small percentage of our girls to-day approach and pass the adolescent stage without disturbances of mind and body more or less grave. The pathology of the menstrual function alone fills many pages of our medical text-book, and how much of the surgical and medical gynaecology of later years is the direct or indirect outcome of the pathology of adolescence has yet to be determined. It is shrewdly suspected that our schools, especially our boarding-schools, are wholesale manufactories of the damaged womanhood which later fills the consulting-rooms of our gynaecological specialists. If this be so, we are tardy indeed with our Hygiene of the Adolescent Girl.

And while it is impossible to initiate a Hygiene of Adolescence which has not had its basic principles already recognized and applied in the upbringing of the infant and the child, there are yet some factors resident in the home and the school which rightly claim to have special hygienic significance at this so-called critical period. Every error of habit has

of course contributed its share to the malnutritions of sex which manifest themselves through the varying degrees of functional disorder, from mere anaemia to complete sexual derangement, but special attention might well be drawn to two far-reaching influences for evil—apparently distinct but really associated, the one largely physical, the other mainly psychological—which are only very imperfectly understood and very partially appreciated. I refer to the effect of restricting clothing on the developing body, and the effect of cramping ignorance of self on the developing mind.

Just at an age when Nature is making her most urgent appeal for the space and freedom, both physical and mental, which she always craves and now most urgently needs for the establishment of a new and fundamental function, she is frustrated and stultified at every turn, by a perversion of habit on the one hand and a conspiracy of silence on the other, which plunges the adolescent girl into a state of physical and moral civil war. I believe that there is no *natural* tendency for the adolescent girl to lay aside the play spirit, abandon her love of movement and drop her Tom-boy instincts in favour of a gentle reserve and yielding desire to please. On the contrary, it is a tardy adaptation accomplished under pressure : for the normal girl during the years from 12 to 18 finds herself vibrating with a maximum of potential energy which she yearns to expend in the good old natural way of physical rough-and-tumble. Why, then, do we now lay plans to further restrict her opportunities for physical exercise and spoil her joy in movement, already only too often at a minimum, by corsetting

the figure, lengthening the skirts, and perching the girl on heels which spoil the body axis and endanger stability? Coincidently we impose an etiquette which creates self-consciousness and yet denies all honest self-expression and assertion. It is not only the corset as such, though this is naturally most open to abuse, but every restricting and restraining band, which becomes such a menace at this age. The delicately constructed organs of sex, now seeking to develop in the pelvis, are frequently subjected to a continuous pressure from above. The abdominal organs are packed and pressed down upon the yielding pelvic contents. Even a cramped thorax—sufficient tragedy in itself—becomes a mechanical danger to the pelvic organs apparently so far removed. Imperfect lateral expansion means increased diaphragmatic movement downward upon the contents of the abdomen, and these in turn compress the undeveloped, and therefore unresisting, uterus and ovaries.

Menstrual pain is often the outcome of abnormal pressure on nerve terminals; increased pressure is a result of congestion; congestion is the common expression of obstructed circulation; and circulation in a packed cavity such as the pelvis is readily obstructed. Is it any wonder that later years reveal atrophied and infantile conditions, displacements and other abnormalities of the sex organs which have deprived many thousands of half their joy in life? Let us see to it then that the clothing of adolescents becomes if anything, looser, lighter, freer; that there is no grip at the waist line, no pressure or drag on the abdominal walls. Free movement of the body should be less of an effort than ever before, for this

is the age when leg and trunk exercise should be encouraged and increased instead of being prohibited and reduced. Anything and everything which stimulates circulatory changes in the trunk is now of special value for the nutritional needs of those new organs in process of development.

There is, in my opinion, no hygienic corset for the adolescent girl. After twenty, when Nature's work has been completed, and a certain resistance to intrusions into the pelvis has been established, a hygienic corset for the woman might be found, but even then it would be far to seek. I have no hesitation in emphasizing this point because the evil that wrong clothing does lives after us as potently as any other abuse of sex.

Ignorance and Hygienic Errors

When we turn to that other great deteriorating influence in the development of the adolescent girl—the ignorance of self, or what is much worse, the partial and distorted knowledge which few can escape, we find ourselves plunged into the whole vexed question of sex instruction. 'It is impossible to doubt the vitality and vigour of this new movement,' says Havelock Ellis in his *Task of Social Hygiene*, 'especially that branch of it concerned with the instruction of children in the essential facts of life.' When education authorities have faced this task the hygiene of the adolescent girl will be infinitely simplified. Personally, I am not one of those who would leave this instruction till the approach of puberty. It is simpler, saner, and safer to introduce the child

to this study, rather than the adolescent. As far as my own observations have carried me, the ' psychological moment ' teachers are advised to seize and utilize, is a myth. There is, in the average girl, no critical phase which even the most sympathetic mother could honestly single out as the most favourable opportunity for introducing the study of the physiology of sex. Questions have been asked in the kindergarten, and continue through every year of the normal child's life which afford abundant occasions for the quiet, and unobtrusive, yet frank and truthful, revelations of the laws of sex and reproduction. But early and repeated references are advisable thoroughly to familiarize the mind of the child so that the subject takes its place side by side with all the other forms of instruction which comprise education. There is little excuse for us to-day to dwell on the difficulties of the teaching. Educational experts have already given us the benefit of their study, and there are now several excellent methods of teaching sexual physiology to the child, systematized and elaborated, and requiring only that the teacher shall bring to her subject an artist's gift of language and vocabulary, and above all, that intangible thing called the ' right personality.' I would like to draw attention to a very beautiful method of instruction worked out by Miss Nora March, a teacher of Nature Study and Biology in some of the Northern colleges. Her system is comprised in the ordinary nature-study course, amplified so as to introduce the study of the organs and functions of sex, as such, throughout the vegetable and animal kingdoms. By specially selecting her type studies with this in view the child

is made familiar, by easy transitions, with the principles of fertilization and reproduction in bi-sexual forms till the higher animals are reached. Such methods reduce 'the shock of self-realization' to a negligible minimum.

Most important of all, by this open and healthful instruction sex is robbed of all its mystery and its shamefacedness, free discussion replaces the traditional policy of confused silence, and the girl is equipped with the best protective knowledge that life can give her. She knows 'all about herself,' and therefore *thinks* very little about herself and broods not at all. She grows up 'prepared to mix with man on the intimate yet sane terms' which modern professional and business life makes necessary.

Knowledge of Sex Hygiene

I believe that half the abnormalities of sexual development are traceable to partial and perverted knowledge. Everything which minimizes emotional sex concentration, not only helps to restore to nature her true perspective powers, but also clears the ground for many other purposes of nature which should coincidently receive her care. Further, those errors of conduct and habit, the seeds of which are commonly sown in early adolescence, fall on a highly resistant soil when they reach the mind of the girl already fortified by knowledge and devoid of morbid curiosity.

This brings me to the question of self-abuse and other forms of so-called sex-perversion. Recent treatises lay much stress on the prevalence and dangers of such practices, especially in boarding-schools.

Appalling figures are quoted and harrowing results recorded. The whole presents a scathing comment on the present 'monastic' system of education. If only half one reads is true, a very serious condition of things prevails, and yet another argument is added in favour of co-education and early instruction in Sexual Physiology and Hygiene. But it would require an expert in facts and figures and deductive reasoning to pass judgement as to the actual national effect of these practices upon the youth of our country. Some form of sex-perversion is apparently the rule among adolescent girls and boys, yet there is as yet no obvious wholesale mental or physical deterioration among our young adults. I do not think in a manual of this nature that I shall strike an unwise note if I sound a word of warning. There is a tendency among many writers to explain every ugly, every weak, every tyrannical instinct of the adolescent as an expression of sex-perversion. One is tempted to inquire from this school of writers, 'Are the perversions of sex greater than the perversions of most of the other physiological functions under our modern civilised social régime; rather are they not 'all of a family,' and do they not all thrive on the same social soil of ignorance and misdirected energy?' Artificial interference with Nature characterizes our whole civilization, and but expresses the mis-applied half-truths of a strenuous, self-assertive, but self-seeking phase of our social evolution. We eat, drink, dress, have social and domestic habits, as utterly perverted in the sense that they are not physiological, as any habit of sex self-abuse among adolescents, for instance. Further, is mono-sexualism any greater *perversion*

of sex in the adolescent boy or girl than poly-sexualism (to coin a word) in the adult, having regard to the age, environment, and opportunity of each? To state that the one is an unnatural expression of sex and the other a natural one, is merely to beg the question. Neither are physiological necessities, and both are contrary to individual and social welfare. I commend this aspect of the whole question to students of social problems. Nature is patient and long suffering, and just as she adapts herself to make the best of other abuses of her will (never without her price, of course), so she forgives even these perversions of her fundamental laws. The outlook is not so desperate under this thought. Sex perversion and abuse ceases to be a unique and hideous outbreak of evil working on to destruction, and takes its place among the many other fallacies of conduct and habit which Nature is chronically contending with, and more or less successfully correcting. Meantime let us be sure we are not magnifying the significance of sex and misrepresenting its many manifestations. Above all, let us protest against those 'terrifying tutors of adolescence' who create an anxiety and dread which is responsible for half the mischief.

General Hygiene.

In conclusion, let me briefly summarize some of the further practical features regarding the Personal Hygiene of the Adolescent Girl which will best repay attention. Warmth is a prime essential during the menstrual period, and most forms of pain are amenable to its influence. The mediaeval notion that baths

are unwise at this time should be corrected. The hot immersion bath is one of the best means of reducing deep as well as local congestion, and thereby relieving periodic pain. For the same reason see to it that the extremities are warm, and if sensitive to cold, avoid the open-work stocking and the sleeveless vest. Eschew the tight boot and the French heel. The latter distorts the body axis and throws the pelvic curves out of their physiological relations. Clothes which hamper movement, limit the stride, and reduce activity, also promote self-consciousness. Self-consciousness is an expression of morbid strain, and consumes vital energy.

Remember that pain may become a habit. Nerves which periodically experience pressure and express pain, become unduly sensitive to all local changes. Therefore plan to avoid pain. Special care should be taken to keep the bowels active, and if possible, approximately empty during the congestive periods. Sleep should be abundant—nine to eleven hours according to ages between 13–18. Nature works to great advantage during unconscious rest. Diet should be light, non-stimulating, and on the whole, abstemious. This age does not demand an increased food supply. Delayed menstruation is best ignored up to the age of 17–18; it is not normal, but it is scarcely pathological. Attention to general health, and a course of physical culture, will gradually restore the balance of metabolic changes which control development. Suppressed menstruation, i.e., absence of the flow after the function has been established is commonly due to educational activity—not to say strain. Occasionally school changes absorb so much vital

energy that nature works on a meagre margin. There is a possible danger of malnutrition and under-development here, but usually it is a temporary shortage which balances itself later without obvious disadvantage.

Hysterical manifestations will usually yield to the hot bath and bed treatment, on an empty stomach. Frank inquiry as to habits may be indicated in persistent attacks. Rest, exercise, and school routine should be temporarily modified when pain is present or the flow profuse. Rest in the horizontal position, loose, warm clothes, individual quiet and light food will give the best results. Local bathing is soothing and a necessity for cleanliness. No syringing is necessary at this age except under medical advice.

Lastly, let us keep in mind that the Hygiene of the Adolescent Girl is largely preparatory, that Nature is in peculiar charge of this age period, and that all the best of us can do at many stages is to play the part of those who stand outside and wait.

V

THE HYGIENE OF THE ADOLESCENT BOY.

ATHELSTANE I. SIMEY, M.A., M.D., B.C., M.R.C.P., M.R.C.S.

Medical Officer of Rugby School; Late Medical Registrar to the London Hospital.

A child left to himself bringeth his mother to shame.

Correct thy son, and he shall give thee rest.

PROVERBS.

And bear with me, you soldier youths, who are thus in all ways the hope of your country, or must be, if she have any hope ; if I urge you with rude earnestness to remember that your fitness for all future trust depends upon what you are now. . . .

RUSKIN.

To be active, agile, strong, is especially the glory of young men. Our nature and history have so disposed our frame that thus all physiological and psychic processes are stimulated, products of decomposition are washed out, the best reaction of all the ganglionic and sympathetic activities is aroused, and vegetative processes are normalized.

G. STANLEY HALL.

There courteous strivings with my peers,
And duties not bound up in books,
And courage fanned by stirring cheers,
And wisdom writ in pleasant looks,
And hardship buoyed with hope, and pain
Encountered for the common weal,
And glories void of vulgar gain
Were mine to take, were mine to feel.

'IONICA.'

V

THE HYGIENE OF THE ADOLESCENT BOY

ADOLESCENCE is the period of transition from boyhood to manhood, and corresponds roughly to the time of life spent by some at a public school and university, by others in training for the business of life whatever it may be, a trade, profession, or some other calling. It is the most susceptible period of a boy's life, when body and mind are plastic, when this evil tendency can be stamped out and that good influence can be introduced to become a permanent possession or characteristic. It is the time of life when the hereditary taint may be eradicated and a new foundation laid for the structure which is soon to be submitted to the wear and tear of life. Everything depends upon supervision, discipline, and healthy surroundings.

THE SUPERVISION OF YOUTH

Whose duty is it to supervise the adolescent? There can be one answer only to this question: it is the duty of the parents, and it is a responsibility which is the keystone of the construction of our society; it cannot be shirked nor thrown entirely

on other shoulders, though it is quite right and proper that it should be temporarily delegated to those who make it their profession to supervise and educate.

There is an unfortunate tendency now to 'hand over,' so to speak, the son to be educated body and soul by the school to which he is sent, to regard the school as responsible for his physical and moral as well as intellectual health, and the holidays as a time of indulgence and relaxation of all discipline, rather than as a time when among the gentler influences and the greater refinement of home life the youth should turn his mind to those family, social, and civic ties for which he has so little time at school.

But how can the parent exercise supervision over the health of his son at school? First, by a careful selection of the school to which the son is sent and of the particular boarding-house in that school. He should make himself acquainted with details relating to the sanitation of the school, the food, the exercise, the medical supervision that is given to boys at that school, and, above all, he should send his son to school healthy, well clad, and should inform the authorities of any tendency to any particular ailment whether hereditary or acquired.

During the holidays he should see that his son fares well but plainly, has plenty of sleep and exercise, reads good sound literature, and he should do his utmost to prevent him acquiring habits of selfishness and luxury. He should send him back with enough, but not too much pocket money, and make him keep an account of how it is spent, so that he may learn businesslike habits and something about the value of money.

On entering school, the boy should from the first be subjected to supervision, which should be strict at first, but gradually relaxed as he grows older and more independent. As soon as convenient he should be examined by the medical officer of the school, who, being an expert in his particular line, will often be able to detect some incipient weakness in the boy, and by drawing attention to the appropriate treatment, prevent its development. By this precaution the exercise can be adjusted to those whose physique is defective or in whom the heart is hard pressed by the onset of puberty, a tendency to flatfoot can be corrected, and the like. In every case measurements of height and weight should be taken, for they are of the utmost value for comparison with future records. The medical officer will impress upon the boy the necessity of regularity in the daily action of the bowels, and inform him what steps he should take to obtain advice for trifling ailments during his school career.

In the boarding-house careful supervision should be kept over the boy's health. The matron should see that he wears appropriate underclothing, and the master of the house should see that in cold and wet weather overcoats and rainproof coats are worn.

Defective boots are often responsible for cold, wet feet and consequent illness; it should be impressed upon the servants that they should look out for leaky boots and report them to the proper authority.

The house master should also make himself responsible for the cleanliness and neatness of his boys, visiting their studies or rooms in which they assemble and seeing that they keep them clean; he should

see that they keep their hair cut short, and that there is nothing slovenly about their personal appearance when they assemble for meals or prayers. There should be some responsible person told off to see that the boys, especially the smaller ones, eat their food properly at dinner. Lack of appetite at dinner generally means indisposition or the consumption of sweet stuff between meals, which should be absolutely forbidden.

The question of food in adolescence is all-important. It should be plain and plentiful, and the meals should be so arranged that the stomach is never either over-filled or empty for long during the working hours. The food should be served in an appetizing way, and thoroughly well cooked ; scrupulous cleanliness should be observed in the way in which it is served. No boy should ever have to provide himself with food ; it should always be under the direct control and supervision of the master of the house in which he lives. In the evening a good light but substantial meal should be provided, which in winter should be hot, and as much variety should be aimed at as possible in the choice of dishes.

It must be remembered that adolescents, in addition to the wear and tear of everyday life which at school is very great, have to provide food for warmth and material for growth, and they therefore require proportionately more food than adults, especially such foods as contain sugar and proteids. The amount of sleep required by adolescents is very great, and not infrequently a day in bed when a boy is flagging will often save him from a more serious illness or breakdown. Strict supervision is required to ensure

that when boys go to bed they go to sleep also, and are not kept awake by the incessant talking of their perhaps less sleepy neighbours. A growing boy requires at least eight to ten hours of uninterrupted sleep daily.

When illness, even of a trivial nature, befalls the adolescent he should be properly nursed, and great care should be taken that he does not return to his strenuous life again until he is perfectly fit for it. It is most important that, in the matter of exercise, he should gradually get into training again after an illness, and not undergo a too severe trial of his physical endurance whilst he is still 'soft.'

The Rôle of Discipline

Adolescence is the age in which we learn to obey. If obedience is not taught in adolescence it will probably never be learnt. Discipline is the lesson of our schools, and it is taught in several ways. Firstly there is the discipline of school work; this is entirely in the hands of the masters, and it is quite essential that a schoolmaster should be a good disciplinarian. But whilst insisting on regularity and diligence in his pupils, he should know when to allow them to 'stand easy,' and he should know and study each pupil individually so that he may not make the grave mistake of spurring on the willing but jaded horse. A great deal more should be required of a schoolmaster than a knowledge of the subjects he is called upon to teach. He should be an astute observer of character, and have a shrewd eye for physical flagging. If he is in doubt let him seek medical advice. Boys are

sometimes treated with the cane who should be treated by rest and encouragement.

A sound system of discipline is provided by school games, and this system has the additional merit of being originated and carried out by the boys themselves, generally with the co-operation of masters.

Akin to games is the discipline inculcated in boys by the various organizations instituted for their training, such as the Boy Scouts, the Officers' Training Corps, and the like. It is to be hoped that before long every young man or youth in the British Isles will undergo a systematic course of military training. This would not only be a great benefit to the physique of the rising generation, but would be of enormous importance as a factor in the moral regeneration of the nation and in the solution of some of its most serious social problems. Athleticism may be carried to an extreme if not carefully kept within bounds, but, handled circumspectly, it is a useful weapon in the hands of the schoolmaster. Nothing is worse for adolescents than to loaf, and loafing is incompatible with athletic prowess. The boy keen on his games is a finer specimen of humanity than the loafer, and he avoids the temptations which beset the loafer in a community of adolescent boys. Such temptations, however, are bound to occur, and it is only by self-discipline, combined with the timely caution of parents and schoolmasters, that adolescents can be saved from giving way to their seductive influence. Every schoolmaster should be on the alert to notice the first signs of yielding to these insidious temptations in growing boys. A few words of advice and explanation

will often check what might otherwise become an immoral practice, and save much misery and degradation both moral and physical. Adolescents should be taught to hold themselves straight and well, and not slouch with their hands in their pockets. It is useless to attempt to improve the physique by practice in the gymnasium when out of the gymnasium a most unhygienic attitude is prevalent. In school as well as at play a physical discipline should be insisted upon. No boy should be allowed to lounge at an ill-fitting desk; he should be provided with a good desk, and be made to sit in a proper position, with eyesight protected and proper illumination for his books.

The Influence of Healthy Surroundings

Every growing boy should be brought up in healthy surroundings, whether he be educated at home or in a school. In the case of delicate boys, the climate of the locality to which he is sent to school is of great importance. Sea air may be imperative in the case of one boy who comes of a stock with a tuberculous tendency; moor air may suit another; but wherever a youth is sent to school his parents should first satisfy themselves as to the sanitation of the district, then as to the special sanitary arrangements of the house in which he is to live. He should have a guarantee that the drains are in proper order and are inspected from time to time, that the water supply is good, that there are arrangements for warming, and, above all, that ventilation is satisfactory. Sufficient stress is not generally laid on the ventilation

of our schools. Where many adolescents are housed together it is quite inevitable that infectious complaints, such as colds, sore throats, and other so-called infectious fevers should spread, but much can be done to check them by proper ventilation. This can be effected by means of windows, fire-places, electric fans, and other contrivances, but it must be thorough, and no living-room or sleeping-room in which adolescents are housed should be allowed to get stuffy or musty. This is of prime importance. All school buildings should be well warmed for several days before the school assembles at the beginning of a new term, and kept warm throughout the cold weather. There can be no question that fires are preferable to hot-water pipes, except in so far as they give rise to more dust, and are, perhaps, more dangerous.

There should be plenty of lavatory and washing accommodation in a school boarding-house, and the lavatories and bathrooms should be airy and well ventilated, with a sufficient supply of pegs on which the boys should be made to hang their towels, sponges and clothes, and each boy should use his own and no other boy's towel and sponge. It is by neglect of these precautions that certain contagious diseases of the eye and skin are spread from one boy to another. There can be no question that in sanitary matters schools and other institutions for adolescents have much improved during the last twenty years, but there is still room for improvement, and it is incumbent on those who are responsible for the health of boys growing to manhood to persevere till they reduce the dangers and risks of adolescence to a minimum.

VI

THE DIET OF YOUTH

ROBERT HUTCHISON, M.D., F.R.C.P.

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Cursed be the social wants that sin against the strength of youth.

TENNYSON.

O that men should put an enemy in their mouths to steal away their brains!

SHAKESPEARE.

Once the children are born, it must be understood that the character of their diet is of great importance to their bodily strength.

ARISTOTLE.

Beware of such food as persuades a man to eat, tho' he were not hungry, and those liquors that will prevail with a man to drink, tho' he were not thirsty.

SOCRATES.

Whatever we wish to buy we ought first to consider not only if the thing be fit for us, but if the manufacture of it be a wholesome and happy one; and if, on the whole, the sum we are going to spend will do as much good spent in this way as it would if spent in any other way.

RUSKIN.

I think that if we can train the children early to see the difference between what dirt and waste and selfishness make of a poor man's dinner, and what thrift and care and cleanliness can make of it at the same cost, we shall be civilizing them almost more directly than by our sums and our grammar, and shall be taking in flank our great enemy, drink—drink, the only terrible enemy whom England has to fear!

THE LATE DUKE OF ALBANY.

VI

THE DIET OF YOUTH

FOOD fulfils two functions in the body. First, it provides material for building up and keeping in repair the tissues and organs; secondly, it is the source of the heat and energy required for maintaining the body temperature, and for enabling the muscles to do work.

The nutritive constituent contained in food which fulfils the first of the above-mentioned functions is called by chemists 'protein,' and the foods which contain most of it are the animal foods (meat, fish, eggs, milk and cheese), but some vegetable foods, such as peas, lentils, oatmeal and nuts also contain it in abundance. The constituents which chiefly supply heat and energy are the 'carbohydrates' (starch and sugar) and the fats. The former are contained abundantly in all foods derived from the vegetable kingdom (cereals, roots and fruits), whilst the fats of the diet are mainly of animal origin (butter, bacon, dripping, meat-fat), although some vegetable foods, such as nuts, contain fat in large quantity also.

Now, youth is a time of growth, and this means that, throughout this period of life, the body has not

merely got to be kept in repair, but its bulk has to be added to day by day. It follows from this that the diet of youth must contain a relatively large proportion of building-material, i.e., protein. But youth is also an energetic time during which the muscles are, or ought to be, very active in games and play, and this involves the necessity for a large supply of 'energy-material,' i.e., fats and carbohydrates as well. Thus we reach the conclusion that the diet of youth must be *abundant*. Seeing also that a large amount of protein is required, and that protein is chiefly contained in the animal foods, it follows that a mixed diet is almost a necessity at this period of life. I do not say that it is impossible to rear healthy boys and girls on a purely vegetarian diet, but it is very difficult to do so without the consumption of a large bulk of nutriment, owing to the comparative poverty of most vegetable foods in protein, and a bulky diet is apt to over-tax the digestive powers. The chief practical objection to the use of a large proportion of animal food is its cost, but this can be met, where economy is an object, by selecting the cheaper varieties, e.g., the less expensive cuts of meat, the cheaper sorts of fish, such as herrings, and by the free use of skim-milk (which is rich in protein) and of cheese. I am aware that cheese is commonly regarded as an indigestible food, but this objection only applies when it is eaten raw. When cooked and mixed with some farinaceous food (as in many of the Italian dishes), there are few boys and girls who are unable to digest cheese, and it certainly ought to enter more largely into the diet of schools than it does at present. If, in addition to these less expensive animal foods, the vegetable

foods which are richest in protein, such as oatmeal and lentils, are freely represented in the diet, there will be no fear of a shortage of building-material.

The supply of energy-material presents less difficulty. Starch is contained abundantly in many cheap foods (bread, rice, potatoes, &c.), whilst sugar is a compact and inexpensive form of pure carbohydrate and one which growing children do not need to be persuaded to take largely. The danger, indeed, is that too high a proportion of the energy-material of the diet may be supplied in the form of carbohydrates and too little in that of fat. Yet both are necessary for health, for if either fat or carbohydrate is supplied in relative excess, the diet becomes 'ill-balanced' and health and digestion suffer. This is the prevailing fault of the diet of youth amongst the poorer classes: it contains too little protein and fat and a relative excess of starch. The excuse for this state of things is that fat, like protein, is apt to be expensive; but it should be remembered that although bacon and butter-fat may be expensive, dripping and margarine are just as nutritious and cost much less, and in households in which economy is of importance the larger use of these forms of fat should be encouraged as much as possible. To sum up, the diet of youth should be an abundant, mixed, and well-balanced diet in which protein, carbohydrates, and fats are all freely represented.

As has already been pointed out, the diet of youth, owing to the demands both for growth and energy, must be an abundant one, and it has been calculated by physiologists that at the age of twelve a boy requires 70 per cent., at thirteen to fourteen, 80 per

cent., and at fifteen to sixteen, 90 per cent. of the amount of food needed by a full-grown man doing moderate work. Girls of corresponding age require rather less. In daily life the only safe guide to the amount of food required is the appetite. It goes without saying that the appetite must be a healthy one, and not debauched by the use of highly-flavoured foods or by the taking of sweets, &c., between meals. It must also be pre-supposed that plenty of exercise in the open air is being taken. If these conditions be fulfilled there is no danger in allowing the growing youth to eat his fill of plain wholesome food. The criterion of sufficient feeding is the body weight. Failure to gain weight steadily throughout the period of growth should always lead to a revision of the diet scale and, if this appear insufficient, the advice of the doctor should at once be sought.

The Use of Beverages by Adolescents

Youth is a thirsty time, and care should be taken to see that plenty of liquid is allowed; the actual amount required must be determined by the degree of thirst, but as a rule one may reckon that not less than two pints of liquid will be necessary. Plenty of water, provided it be pure, is essential for health, and girls, in particular, are apt to drink too little of it. If the source of the water be doubtful, it may be boiled and afterwards flavoured with toast if necessary. Very hard water should be treated similarly. Water should form the sole beverage at dinner, although lemonade or ginger-ale may sometimes be allowed as a 'treat.' Alcohol should never be given to young people except on medical advice.

Of other beverages, it is necessary to utter a word of warning against the abuse of tea, which is a potent cause of indigestion, at this period as in later life. Coffee, also, should be taken in strict moderation, as it is apt to be exciting to the nervous system, and should be avoided in the latter part of the day owing to its tendency to produce sleeplessness. Cocoa is a wholesome and nourishing beverage if taken with plenty of milk, but some find it indigestible, and it should therefore never be used very strong.

The Arrangement and Composition of Meals

As a rule, three full meals a day are sufficient—breakfast, dinner, and a late tea. These should be separated by intervals of four and a half or five hours. No work, bodily or mental, should be done on an empty stomach nor immediately after a meal. It is very important that the food should be well cooked, served in a clean and attractive way, and sufficiently varied. On the other hand, the plainer it is the better, all spices, sauces and rich flavourings being carefully avoided. Warm food is more easily digested than cold, and dinner should always be a hot meal.

The importance of thorough chewing should be constantly impressed on both boys and girls, ' bolting ' of the food being a fertile source of indigestion.

As regards the constituents of the different meals, a word is necessary. Breakfast and the mid-day dinner should be the most solid, and should contain the most ' building-material,' which practically means some form of animal food—eggs, fish, bacon, &c., at breakfast, and a joint at dinner. Porridge is a useful addition to breakfast, as it is rich in ' building

material,' but is not sufficient alone for a meal, although it forms a good 'foundation.' Some form of green vegetable should always be given at dinner for the sake of its valuable mineral salts, and stewed fruit should usually form part of the 'sweet' course on account of its action on the bowels. If meat be not easily obtainable, a dish containing cheese, lentils, or beans may be given as a substitute, or one of these may be used in place of meat, as a change, especially in hot weather.

Tea may consist of bread-and-butter with jam and cake on occasion, and milky tea or cocoa. Sweets should only be allowed after dinner, and, where funds permit, some form of fresh fruit should be taken after either dinner or breakfast. No food—except perhaps a glass of milk or a cup of cocoa—should be taken after the evening meal, for the more nearly the stomach is empty on going to bed the better in most cases, as otherwise sleep is apt to be disturbed.

Not uncommonly one is met with 'fancies' in the taste for food, the boy or girl exhibiting a marked repugnance to things which the majority eat without objection, and such peculiarities are rather difficult to deal with. The attempt to educate the digestion should always be persevered with, not only in the interests of health, but because of the great inconvenience in after-life of being unable to take foods which are in common use by others.

VII

THE OCCUPATIONS AND RECREATIONS OF YOUTH

JOHN LAMBERT, M.A., M.D., B.C., M.R.C.S., L.R.C.P., D.P.H.

Medical Officer to Lancing College; Late School Doctor to the Brighton Education Committee.

If there be no enemy, no fight;
If no fight, no victory; if no victory, no crown. SAVONAROLA.

As the Hope of the Earth is the Spring-time,
So the Hope of the Race is the Child.
EDWARD FOSKETT.

Place upon his head the helmet of rational self-determination, put into his hand the sword of aspiration, and above all, give to him the shield of faith and reverence, so that he goes forth to defy the demons of appetite within and the devils of temptation without.

E. HARRISON.

Be inspired with the belief that life is a great and noble calling, not a mean and grovelling thing that we are to shuffle through as we can, but an elevated and lofty destiny. W. E. GLADSTONE.

Let a man contend to the uttermost
For his life's prize, be it what it may.
R. BROWNING.

For to travel hopefully is a better thing than to arrive, and the true success is to labour.

R. L. STEVENSON.

Live pure, speak true, right wrong,
Follow the Christ—the King; else wherefore born? TENNYSON.

And only the Master shall praise us,
And only the Master shall blame;
And no one shall work for money,
And no one shall work for fame,
But each for the joy of the working.
RUDYARD KIPLING.

VII

THE OCCUPATIONS AND RECREATIONS OF YOUTH

Of the many problems of adolescence probably none is more difficult to solve than the selection of a life-work for the youth, and none is approached with less real consideration than the choice of recreations. In many grades of the community there is a tendency to allow the child to drift into an occupation without any consideration as to ultimate prospect and success. In regard to recreations, the opportunities offered and sometimes the physical capability of the child are the only factors considered. Fortunately such problems are being readily taken up by the teaching profession, and, whatever the grade of the school, parents will find that the teachers' knowledge of a child's capabilities and special tastes will be of invaluable assistance in guidance as to the career and recreations of their children. More and more at the present time does the parent look to the school for guidance as to the work and play of the child, more especially in public and secondary schools, and to a much more limited extent in elementary schools.

The Occupations of Youth

Primarily attention should be directed to the physical and mental qualifications of the adolescent boy or girl. It is obvious that, for many occupations, physical defects will disquality, and this limitation more especially applies to candidates for the public services and those desirous of taking up trades in which active movement and arduous labour are necessary. A minority of adolescents will be fit for manual work only, as their mental powers are too ill-developed to cope with problems demanding even a moderate degree of the reasoning faculty. In this primary sorting out the value of a routine medical inspection at school will be manifest; record cards of the individual will be looked up, and the mental capacity and position in the school at the final examination will be noted, together with any physical deficiency in regard to stature or function. At present such particulars are available for most boys and girls in public and elementary schools, and also in a few secondary schools. In the near future it should be possible to refer for such notes to the card of any child leaving school in this country. Here, for elementary school children at least, is the basis of co-operation between the school medical service and the labour bureaux; for under the Education (Choice of Employment) Act it is now possible to establish juvenile labour bureaux, and as a member of the committee the school medical officer will find useful work. It will be possible for such committees to say whether a child should be put to unskilled or skilled manual work, or whether it would

be advisable for a child to proceed to further studies or to take up work requiring mental rather than manual skill. It will be open to them to say, on medical grounds, that certain branches of work are more likely to promote the physical welfare of the child, and to advise in the selection of these for individual children. And this principle of selection on mental and physical grounds may be applied to boys and girls in public and secondary schools. Here, also, the parent will be able to co-operate with the head master or head mistress and the school doctor, and will be enabled to eliminate on physical grounds certain occupations, and to decide, on the basis of mental efficiency, what occupation or profession may reasonably be taken up with success. In regard to girls, whether in elementary or higher schools, the knowledge that the majority will eventually have to undertake the care of a family must be remembered.

Following this primary sorting out, other points come up for consideration. Perhaps the most important is the consideration of the child's tastes, which, if strongly marked in any particular direction, should certainly, in the absence of any contra-indicating mental or physical defect, be given special attention. In some children neglect of such considerations, more especially in the adolescent stage, when reason is less critical, and when the calmer philosophy of a more mature age is not yet acquired, is productive of much unhappiness. To have an interest in work is more than half the battle of life ; in its absence work becomes monotonous and mere drudgery.

To the average adolescent all work at first is pleasurable : it is new, it is bringing in money, and is engendering the feeling of manhood or womanhood and citizenship. But if the work be ill-chosen, or if interest be not stimulated, then these new sensations rapidly disappear, and youth looks to a lifetime of monotony during the very period when interest should be kindled to the full if life is to be of real value to the community. The old spirit of apprenticeship and the love of work is fast disappearing in the rush of modern life : it is almost mockery to talk of the sacredness of work in connexion with many of the conditions under which man and woman labour to-day. Yet, where possible, effort should be directed to fostering the system of apprenticeship, which helps to maintain and stimulate a genuine interest in work.

Special opportunities are given to many parents to enter their children in certain trades or professions. The average child will, with the parents' consent, accept such chances, and will be more or less successful. A minority will fail through disinclination for the particular work, and will be miserable, so that in the consideration of such offers it would be advisable to explain the nature and possibilities of the work and, in the event of marked disinclination, to seek some other opening for the child. The possibilities of advancement in any occupation or profession should always be freely discussed with children. Such discussions will stimulate interest in the work, and thought as to the means by which advancement is possible. The monetary cost of further technical training and education is often a bar to the choice of

suitable work. In such cases the advice of the head master or head mistress of the school should always be sought, as help may be forthcoming through the medium of scholarships or bursaries; the ultimate possibilities of such further training should always be fully discussed with the parents.

Child Labour

In view of the struggle for bare existence which many of the poor wage continually, it is not surprising that the child should be exploited as a money earner from the earliest age possible. Argument with the parents of a large family is useless—the spectre of unemployment and the fear of starvation are too imminent. The result is that the child, while still at school, begins to earn a few shillings a week by casual labour, and when school days are over work of the same nature is continued. The adolescent is then turned adrift to be replaced by a generation of younger children. As long as children can be bought and sold in the labour market, so long will they be the victims of casual labour.

'Half-timers' have been dispensed with in some of the mills and factories of the north, and they can be dispensed with in all if employers learn to take the proper view of their responsibilities to the childhood of the nation. It is this casual labour before the age of sixteen which unsettles the adolescent for decent work, and which utilizes time which might have been spent in apprenticeship or technical education, and substitutes for it moral degradation and a loss of the desire to do good and honest work. So far as is possible—for such labour must be

performed by some one—the utilization of children in casual labour and blind-alley occupations should be strongly discouraged by teachers and social workers. A discussion with the parent as to the ultimate results of such work will sometimes prevail in a consideration as to choice of employment.

Vocational Training

Vocational training has no place, nor should it have, in the elementary schools, for until the age of fourteen is reached a good general education alone is desirable. After this age a certain degree of specialization may be allowed for occupations demanding skilled manual technique. For the professions it is desirable that specialization should not be commenced before the age of sixteen; it is advisable that the ages for school attendance be extended to fifteen and seventeen respectively in order to obtain the best ultimate results of technical and professional training. Early specialization cripples the progress of later years; advance cannot be made on imperfect general knowledge, and at a period when all energy available should be devoted to the furthering of special knowledge and skill, time will have to be spent in reversion to earlier elementary studies.

In elementary schools specialization is confined to the technical education of mental or physical defectives, who, from the nature of their defect, are limited to choice of few occupations; even then such special studies are confined to children of thirteen and over. Similar principles should apply in State and industrial schools. In public schools there is

practically no specialization till after the age of sixteen or seventeen.

An exception may reasonably be made in regard to the education of girls. It is most desirable that adolescent girls, in whatever grade of society they will eventually be placed, should be familiar with the details of the efficient management of home and children. Domestic economy and the care of infants should have a prominent place in the education of all girls. Where, as in elementary schools, very few remain after the age of fourteen, this training must be given during the latter two years of school life; in secondary schools and public schools it should be given from fifteen onwards. The efficient management of home and children is of vital importance to the health and efficiency of the nation, and were it adequately performed in general many of our social reforms would be unnecessary.

The Recreations of Adolescence

In the selection of recreations for adolescents much the same principles obtain as in the choice of occupations. For the majority of adolescents a preliminary medical examination will suffice to show that they may be allowed to go in for games with but little limitation; yet it is advisable, on behalf of the minority, to establish a system of medical supervision of games. Moreover, medical supervision is necessary in many apparently healthy children during the period of puberty, since this period is associated with rapid growth, and excessive exertion may result in dangerous strain. The school doctor, whether in the public or elementary school, should

regard the classification of boys and girls in reference to the various forms of exercise as part of his routine work. In some cases it is only by making the child take part in a certain game that his unfitness for such exercise is shewn: this is especially seen in regard to cross-country running and cycling, in each of which exercises, unless the amount of work be graduated, there is likely to be excessive strain on the heart. The school doctor should also supervise especially the exercise of boys and girls returning to school after an illness; much harm may be done if active exercise is undertaken before convalescence is complete, and especially after febrile illnesses.

In public schools games are compulsory, and rightly so, for the majority of boys. They serve as an admirable training for the hand and eye, for the neuro-muscular co-ordination on which is dependent any movement or activity, and for the development of physical growth, character, and morale. And it should not be forgotten that such training is as of much value to the adolescent girl as to the boy.

Much can be done in training of mentally deficient and neurotic children by exercise suitably supervised; and the improvement under such circumstances in neuro-muscular co-ordination in such children is often remarkable. The organization of games in elementary schools, while still far behind that in other schools, has improved much in recent years. In Brighton the organization of school sports, of swimming and of football, has been for many years under the control of a committee of the head and assistant teachers, and has been carried on with admirable thoroughness and efficiency. It is no

fanciful surmise to think that fostering of the right spirit in regard to games may have in the future a very beneficial effect in the settlement of industrial unrest, when both master and man learn to 'play the game.' The choice of recreation will depend largely on the opportunities offered. For the public-school adolescent, whether boy or girl, the solution should be left to the head master or mistress and the school doctor. The major field games will aid in the development of individuality, while promoting the communal spirit; minor games, such as fives, racquets, &c., will train the hand and eye, and will help to promote activity and resource in emergencies. For the secondary school adolescent the co-operation of parent, head master, and family doctor will be sufficient, while in elementary schools the medical officer will be able to advise limitation of exercise in such cases as he considers necessary.

The word 'recreation,' however, has a wider scope than 'games'; it should include the pursuit of hobbies, whether open-air or indoor; the intellectual and artistic development possible in such work as sketching and reading also comes within the meaning of recreation. Every adolescent should have at least one hobby to occupy spare time, and those periods when, as in unfavourable weather, games are not possible. And it is of the utmost importance that adolescents who are not allowed to play games should have hobbies if they are to be kept out of mischief. Every hobby has some educational value, whether it be the education of the body, as in hobbies demanding a knowledge of technique, or of the mind, or both. The encouragement of hobbies should not

be difficult in elementary schools, where lessons in nature study may easily be used to stimulate interest in natural history, and where the wood-work centre may be used for carpentering and engineering. To the average child a walk is monotonous, yet if it be undertaken in pursuit of some hobby, it instantly becomes interesting, and mind and body alike derive benefit from the exercise.

Much has been done in the organization of recreations for adolescents in our crowded cities by the various settlements in forming clubs for young men and women ; the opportunities which they offer for recreation remove many, at a critical and impressionable period of life, from the evils and temptations which would otherwise assail them, and they aid in the development of character in a class much in need of such guidance. The elementary school child not only requires to be taught how to play games, but the spirit in which the game should be played, and he certainly does not improve in this respect as he grows into adolescence. Honesty in games means honesty in work, and this is the spirit introduced into the poorer classes by such settlements and clubs. Play centres, supervised by competent managers, are as much needed for adolescents as for children still at school. Such centres would comprise swimming baths, gymnasium, reading-rooms, workshops, library and recreation rooms, and if efficiently and tactfully officered would form powerful rivals to the music-hall and public-house. A great deal remains to be done for girls; there is very little yet corresponding to the Scout movement and the like.

VIII

THE DISORDERS OF YOUTH

J. M. FORTESCUE-BRICKDALE, M.A., M.D.,

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The stormy mutinous youth, grown wise,
Looks out and in with older eyes,
And in his limitations sees
His helpers, not his hindrances.

SUSAN COOLIDGE.

So rounds he to a separate mind
From whence clear memory may begin,
As thro' the frame that binds him in
His isolation grows defined.

TENNYSON.

The youth who further from the east
Must travel, still is nature's priest,
And by the vision splendid
Is on his way attended ;
At last the man perceives it die away
And fade into the light of common day.

WORDSWORTH.

And yet the invention of young men is more lively than that of old ; the imaginations stream into their minds better, and as it were, more divinely. Natures that have much heat and great and violent desires and perturbations, are not ripe for action till they have passed the meridian of their years ; . . . but reposed natures may do well in youth. BACON.

There is a time in the process of his development, while the metamorphosis is going on, when the youth is neither child nor adult : grub or butterfly, it is impossible to say which. The mind is stirred by obscure influences, as the caterpillar's changing body is by its internal workings—by the putting off of the old and the putting on of the new, forefeeling developments which it cannot foresee.

MAUDSLEY.

VIII

THE DISORDERS OF YOUTH

A YOUTH enters on the responsibilities and duties of life with an equipment which is, more or less, untried. The vital weapons are at hand, but their use has yet to be learnt. The ship is built and launched, but has not as yet ' found herself.' Hence youth is a period of experiment, of trial, and of organization. It is not to be wondered at, therefore, that the years of adolescence form a period of alternating failures and successes, of inco-ordinate activity, of undue oscillations and vibrations, both of the bodily and mental functions, or, in short, a developmental stage of extreme instability.

DANGERS DURING ADOLESCENCE

Stresses and strains which the adult organism can withstand may do serious damage to the less stable fabric of youth. On the other hand, youth is more responsive to disturbing influences than the placid and vegetative period of childhood. The known hereditary tendencies of the individual will determine to some extent the special dangers to which he is exposed, and will indicate the

measures which must be taken for protection. But in general it may be said that if 'know thyself' is the most important maxim for the adult, 'nothing in excess' is that which chiefly applies to the adolescent. The ideal to be aimed at is a proper co-ordination in the development of all the functions of the body and mind, in order that the former may be symmetrical and the latter well-balanced in after life. It will be noted that the diseases briefly reviewed in the following sections principally concern those systems in which physical changes are most conspicuous during adolescence; especially is this true of the brain and nervous system.

Mental and Nervous Derangements

The nervous diseases of the earlier years of adolescence approximate to the childish type. Thus *chorea* (St. Vitus' Dance) is still common; it has been calculated that 12 to 16 per cent. of the cases occur between fifteen and twenty, and very few later. Exciting causes seems to be over-pressure at school and sometimes anaemia.

Epilepsy (which occurs in two forms, the true epileptic 'fits' and the minor attacks which are often momentary, and consist of a transient confusion of mind or odd sensation of some kind), is also a characteristic nervous disease of adolescence; a quarter of all the cases begin at puberty or immediately after. Both chorea and epilepsy are found mainly in those who have inherited an unstable nervous system. In epilepsy, in particular, nervous or mental disease is usually found to exist in the immediate relatives of the patient; while in chorea, other members of the

family may suffer from the same disease, though more usually some other form of nervous malady is present in the previous generation.

Actual *insanity* more usually first shows itself in the later years of adolescence. It is markedly hereditary in character, much more so than insanity occurring at any other period of life. The special characteristics of these cases are their tendency to periodicity, that is, to recurring periods of improvement and relapse, and their tendency to terminate in permanent feeble-mindedness.

Acute Infections in Youth.

In this country, the acute infectious diseases are, for the most part, contracted in childhood or in the earlier years of adolescence, though in the more wealthy classes the care which is now taken to avoid infection tends to make the age incidence of the common diseases of this class, such as measles and chicken-pox, higher than was formerly the case. Practically all young persons take *measles*, *rubella* (German measles), and *chicken-pox* the first time they are thoroughly exposed to them; to *scarlet fever* and *whooping-cough* children are much more constantly susceptible than adolescents. The acute infection which seems most prone to attack the adolescent is *enteric* or *typhoid fever*. This disease, which is usually contracted either from contact with a previous case, or from drinking-water or milk contaminated with the germ of typhoid, begins insidiously with a few days of vague ill-health. Then gradually the patient becomes definitely and seriously ill. He is compelled to take to his bed, where he will probably remain

for six weeks or more. Recovery is slow, and for many months after the patient is wanting in vigour of body and mind. The mortality varies, but is certainly usually well below 20 per cent.

Another acute infection which is not infrequent in adolescence is *mumps*. This disease consists of a painful swelling of the parotid glands, which are situated in the cheeks just in front of the ears. Its importance in adolescent cases lies in the fact that in young men the testes, and in young women the breasts and ovaries, may also become inflamed, and their functions permanently damaged. Thus all cases of mumps occurring in persons after puberty must be treated by rest in bed for at least ten days, which minimises the risk attending this complication.

Influenza in its various forms is often met with in adolescents.

Chronic Infections

The most important of the infectious diseases of slow course (chronic) in this country is *tuberculosis*. The tubercle bacillus may infect individuals of any age, but among children and adolescents it is especially rampant; most cases occur between the ages of fifteen and twenty-five. Although the germ may lodge in any organ of the body, during the period of life we are considering, it affects the lungs in the great majority of cases, setting up some form of consumption, or decline, as it used to be called. It may, however, in older adolescents especially, attack the abdominal organs (tuberculous peritonitis). The important points to notice during the early stages of tuberculous infection, in which proper measures may

result in cure, are the gradual loss of weight, combined with progressive pallor and bloodlessness (anaemia). Often, especially in young girls, this is associated with dyspepsia. The symptoms more directly due to the invasion of the lungs are cough, which is obstinate, and sometimes the spitting up of blood from the lungs. Where the abdomen is involved, it will gradually increase in girth, while the rest of the body wastes. There may also be recurring attacks of diarrhœa or constipation. The temperature in all cases is liable to rise above normal during some part of the twenty-four hours, and the patient may suffer from excessive perspiration at night, the so-called 'night sweats.' In any person, especially, whose nearer relatives have suffered from consumption, the symptoms of anaemia and dyspepsia should lead to a thorough medical investigation, in order that, if present, the tuberculous infection may be treated at as early a stage as possible.

Disorders of the Muscles and Bones

The muscles of the adolescent may fail to develop sufficiently to carry out the extra work entailed by growth in stature. At the same time, the bony skeleton, not being fully matured, tends to yield unduly to stress and strain. Hence in young persons the muscles of the back and trunk are often unequal to their task of maintaining the spine in its proper position, with the result that the vertebrae become twisted on one another and the so-called 'lateral curvature of the spine' is produced. In the earlier years of adolescence this lateral curvature is usually developed, as are other disturbances of the symmetry

of the body. Their cure lies in carefully-planned exercises, and their prevention, which is still more important, in (*a*) Properly regulated exercise ; (*b*) the prevention of faulty positions in sitting or standing ; (*c*) adequate rest in the horizontal position ; (*d*) careful attention to the nourishment of the body as a whole ; (*e*) the avoidance of tight clothing or anything which unduly impedes the natural movements of the body.

Disorders of Heart and Blood Vessels and Blood.

Organic heart disease is not uncommon in adolescence as a result of rheumatism or some other acute fever, such as scarlatina. The symptoms are breathlessness and puffy swelling of the legs and feet, but for some time these may be absent. Young persons are also liable to disordered heart action without organic disease. Palpitation, irregular pulse, curious heart attacks which may appear alarming and usually frighten the patient excessively, in nervous young people, are usually 'functional' and will get well under proper treatment. Fainting in adolescents is seldom a sign of heart trouble. Overstrain from excessive muscular exercise is not uncommon, and all boys and girls who are engaged in strenuous athletics should be periodically examined by a doctor, especially before engaging in races of any sort.

Though not strictly diseases of the blood-vessels, it is convenient to mention here the various disturbances of the circulation in the extremities of the body which are sometimes observed in young people. The simplest form is the well known 'dead fingers' from which many young people suffer when exposed to

slight cold. More serious are the various stages of local stoppage of the circulation known as ' Reynaud's disease.' The fingers, toes, nose or ears may go through all the stages seen in typical frost-bite on exposure to slight cold, or after exhaustion or emotional disturbance. The parts may become white and dead, or blue and congested, or may actually die and become gangrenous. Persons subject to this disease are liable to recurrent attacks. In some cases, also, blood is passed in the urine.

The commonest of the blood disorders is ' chlorosis ' or the ' green sickness,' met with in girls, though boys are occasionally affected. The patient becomes sallow, of a peculiar greenish-yellow colour, is short of breath on exertion, suffers from dyspepsia, and, above all, from constipation. Headache is frequent ; the periods are absent or scanty ; often the ankles and feet are puffy at night, and the patient is languid, easily tired, and unfit for mental or physical exertion. The condition is easily cured in most cases, but is apt to recur throughout adolescence. A word here may be said about nose-bleeding, which is very common in adolescents, and is sometimes preceded or accompanied by severe headache. It is usually due to general causes, but, if frequent, it should always be investigated, as it leads sometimes to marked anaemia. If it comes from one nostril only, a local cause may be suspected.

Disorders of Internal Organs

The diseases and derangements of the internal organs which may be said to be peculiar to adolescence are remarkably few. In girls, the enlargement

of the thyroid gland may be excessive, and be accompanied by nervous symptoms, lassitude and inability to exert themselves, constituting what is termed Graves' disease. This affection usually begins in late adolescence or after (twenty to thirty). Its symptoms are rapid pulse, tremor of the limbs, protrusion of the eyeballs, and enlargement of the thyroid gland.

Adolescents are liable to a peculiar disturbance in which, especially after physical exertion, albumen appears in the urine. It can only be recognized by chemical tests, and its importance lies in the fact that these cases, when detected, may be confused with true inflammation of the kidney, or so-called Bright's disease.

Disturbances of menstruation are not uncommon in adolescent girls. The menses are usually absent or scanty in chlorosis, and apart from this, many girls of nervous temperament suffer from considerable pain and prostration at the periods. The onset of puberty, which is accompanied in girls by the normal development of the breasts, is usually in boys marked by slight swelling and tenderness of the nipples, which lasts a few weeks or more and then disappears. It is physiological, and does not require treatment except in marked cases—a little protection of the tender spots.

IX

EDUCATION AND YOUTH

ALLAN WARNER, M.D., D.P.H.

School Medical Officer for the County Borough of Leicester.

I will instruct thee and teach thee in the way which thou shalt go.

PSALM XXXII. 8.

Speak to the earth and it shall teach thee.

JOB.

Seest thou then how good a thing is learning.

ARISTOPHANES.

Education means training for life.

THRING.

The roots of education are bitter, but the fruit is sweet.

ARISTOTLE.

The mother is qualified by the Creator himself to become the principal agent in the development of her child, and what is demanded of her is a thinking love.

PESTALOZZI.

The test of whether you are educated is, can you do what you ought, when you ought, whether you want to do it or not?

HERBERT SPENCER.

The first demand of the State upon the individual is not for self-sacrifice, but for self-development.

KARL PEARSON.

The subordination of the individual to the community, and of the lower elements of the individual to the higher, should be the aim of a magnanimous education.

WELLDON.

IX

EDUCATION AND YOUTH

EDUCATION is a national question and not merely a matter of personal concern, its chief aim being to make good citizens, just fathers, wise mothers. By the term 'good citizen' is implied one who is biologically and socially fit. If we place education on such a broad basis as this it is clear that its scope is not simply limited to scholastic instruction, but includes the question of general nurture and provision for suitable home environment. Home influence is of special significance during the early years of life, when the opinions, teaching, and example of parents are paramount to the child; and such influence has a far more lasting effect upon both character and conduct than any subsequent instruction given at school. Parents who realize this fact are apt to think that their educational responsibilities are at an end when the child begins to attend school, and forget that there should be a guiding hand in the home through the whole period of adolescence, a close co-operation between parent and teacher, and an intimate connexion between the home and the school.

EDUCATION AND YOUTH

The Stages in Education

It is convenient to divide the educational periods of life into four stages—infancy, childhood, adolescence and studentship. Since it is generally recognized that good conduct is largely dependent upon good health, hygiene must be the foundation of all teaching, and our educational methods designed for any particular period of life must be based upon the close mutual relationship which exists between physical, moral, and intellectual training. In infancy education should consist of good mothering, a clean home, and the provision of toys which have an educative value. In childhood an attempt should be made to cultivate and mould the child's character, to teach the habit of implicit obedience, to train the senses through the hands, eyes and ears, to cultivate the power of accurate muscular movement, and to discipline the intellect by the study of reading, writing, and the simple rules of arithmetic. During this stage there must be a certain amount of dogmatic teaching, but at the advent of adolescence different methods of instruction should be adopted, and different standards of conduct expected—methods and standards which must be based on the principles of evolution.

Physical and Psychical Changes at Puberty

Adolescence is marked by great physical and mental changes—changes so great that puberty has been compared to a new birth. The most distinctive change at this period is that the individual becomes sexually mature, and the secondary sexual characters

first become conspicuous. At puberty the essential organs of reproduction become enlarged and active. In boys this is associated with an increase of strength, a deepening of the voice, and a growth of hair on the face and other parts of the body. In temperate climates puberty begins usually about the fourteenth or fifteenth year; in tropical climates it is often a few years earlier. In girls puberty generally occurs at a slightly earlier age than in the male sex. The changes, including the general growth of the body, take place more suddenly in the female, the girl almost at once becoming a woman whereas the adolescent boy is several years before he develops into a man. In girls the onset of puberty is marked by the advent of menstruation, which generally appears in temperate climates in or about the thirteenth year. At this time the pelvis widens and the subcutaneous layer of fat is deposited, the development of which assists so largely in giving the body its graceful contour.

In both sexes the physical changes accompanying puberty are accompanied by psychical manifestations which are no less pronounced. Both kinds of change are dependent largely, if not entirely, on the influence of internal secretions derived from the reproductive glands. Their effect on the brain is marked by an increase in the imagination, in the aesthetic and romantic senses, and in the power of reasoning. Sex also develops the emotional, moral, and social qualities. Thus it is the basis of love, and creates a desire to establish a home and found a family. Undoubtedly this is a critical period in the process of education, for if proper guidance be given to these new powers

it will greatly influence for good the future life of the individual, and will tend to make healthy and mentally vigorous men and women. Further, it is important to realize that whilst the body and generative organs are still growing there is so great a demand on the nutritive energies that there is no surplus energy for reproductive activity. If premature demand be made upon the reproductive functions the general growth of the body as a whole is liable to be arrested, the memory impaired, and the capacity for mental work diminished.

The Training of Youth in Sex Hygiene

In the adolescent stage, as, indeed, in all other stages of education, the ideal of health must be kept prominently in mind, as being the foundation of mental efficiency. It follows that the curriculum must not only in itself be harmless, but should provide an opportunity for definite instruction in hygiene. It may be laid down as a hygienic axiom that at least half of each day should be spent in the open air. This time may be used for games, athletic sports, physical exercises, nature rambles, gardening, &c. At puberty, as we have seen, the most important physiological development is that of sex, so that the subject of sexual hygiene should receive careful attention. Young people in the past have often been launched into the world without any knowledge of the significance of sex, and the proper use of this function. They usually pick up in a haphazard way some information on the subject, much of which is erroneous, giving rise either to unfounded apprehensions or bad mental and physical habits—habits

which, in the case of the boy, may not only be injurious to himself, but to his future wife and children. The problem of sex is therefore an extremely important one from the ethical, social, and racial standpoint. Built on the basis of elementary botany and biology, this subject can be treated in a perfectly frank and open manner. There should be no secrecy or mystery about the matter, the lesson being given in the ordinary course of biology. At the same time a right conception should be given of the high purpose of the reproductive function. The perpetuation of life, the procreation of a new being, should be looked upon as man's most sacred duty. Fear has often been expressed in the past that such teaching will lead to vicious habits, but there is no evidence that this is true, whilst experience proves that ignorance on this subject has led to the moral and physical wreckage of many lives. Sexual desire is best controlled by turning the attention into other channels, and by undertaking hard mental and physical work; and, indeed, all forms of athletic sports are a valuable prophylactic to sensual appeals.

Training in Civic Consciousness

Closely connected with the subject of sexual hygiene is the important question of the true relation of man to woman. The old idea that man was in any sense superior to woman should be treated as an irrational superstition. 'Woman is not undevelop't man, but diverse.' The one is the complement of the other. All social relations spring out of this truth. The man and the woman united together become the father and mother. As time goes on they

gather round them sons and daughters. Here is the family, which widens by and by into the clan or the tribe ; and this, again, expands, by slow growth and lapse of time, into the nation.

The next step that the adolescent should take is to recognize the relation of the individual to the home. When this point has been reached there will arise in his mind the momentous problem of the relation of the individual to the State, his relation to the universe, and his relation to God. If education in youth conforms closely to this natural process of development, much will be achieved towards reaching the goal of social fitness. Man is a gregarious animal, and this human characteristic is noticeable in early adolescence, when both boys and girls often form themselves into groups or clubs for some common purpose. These organizations are educational, and should be encouraged, for they help the individual to form a true conception of corporate life. The young people quickly realize that some members of their society are leaders, some are bright, others dull, some are strong, others weak. Thus they recognize the important fact that in a community men are not equal nor are they independent. This very dependence on one another emphasizes the necessity of union.

At this period of education there should be definite training, with the purpose of developing civic consciousness. With this object in view history lessons should deal with the evolution of primitive tribes and nations, and with the growth of modern towns and cities, with historical epochs of social activity rather than with names and dates of kings. The rudiments

of local and imperial government should be taught, and interest in these matters stimulated by allowing the students as far as possible to take part in elections and other civic functions. They should also learn to take a pride in the beauties and public health of their town, and in its archaeological and historical associations. Such training as this helps to develop true patriotism. By patriotism is not meant the jingo spirit, but a strong feeling of the necessity of organizing the nation as a whole, so that it may fearlessly do its work in the world. Each person should feel that he is not an independent individual, but rather a member of a social whole. This being the case, the ills of the individual are not individual ills, they are a social concern, and it becomes the duty of the State either directly or indirectly to cure the distresses incidental to social and industrial life. It follows that if this conception of social solidarity be true, each individual should sink his own personal ends for the sake of the community, and as far as possible equip himself to render whatever social service the State may require of him—in other words, it is his duty to develop his intellectual and industrial powers to the highest degree.

The Intellectual Training of Youth

It is obviously impossible during the few years of school life to train any individual for all the different functions involved in citizenship. Indeed this should not be attempted. What is wanted are persons with trained brains, having the power to observe and to reason upon observation. Such persons are resourceful under new conditions, and are able to adapt

themselves to a fresh environment. During childhood the pupil is largely a passive recipient of facts; he is constantly storing fresh sense impressions. In adolescence he should still be gaining information, but should be chiefly trained in classifying facts, and recognizing their relative significance. This will make him alert in acquiring and comparing data, and in determining between fact and probability. He will thus make himself ready to play his part as a citizen, and to form unbiassed judgements on the various problems that may arise in social and industrial life.

It is clear, then, that the problem is not what subjects should be taught, but how they should be taught. It is the method and not the matter that is of consequence. However, consideration must be given to the fact that all persons are more responsive to teaching in the concrete than in the abstract, and their interest is better maintained by deductive rather than inductive methods of reasoning. Of the many subjects taught at school, wisely directed work in natural science seems to give the greatest promise of developing the intellect; but even with this subject care must be taken that teaching is not of a routine or stereotyped nature. The teacher should inspire his pupils to observe first hand, and by judicious questioning help them to draw rational inferences from the data that they have verified. Much of this work can be done out of doors. The nature and properties of life in plants and animals, evidences of evolution, the earth and its place in the solar system, its surface conditions, atmosphere, &c., can all be studied in nature rambles. These rambles must not

be treated as times of mere recreation, but as opportunities for true study. After such lessons each pupil should record on paper his own observations, classify them, and draw deductions from them. In this way he will be both exercising his reasoning capacity and developing his power of accurate literary expression. Physics and chemistry must be chiefly dealt with in the laboratory, when similar methods of teaching should be adopted. Most young people find the greatest pleasure in making or doing something. In boys this creative impulse may be satisfied by workshop training, in girls by domestic training. At this period, such training should not be given for its utilitarian but its intellectual value. If the pupils are wisely led in these activities their exercise will prove a great power in developing thought, originality, and initiative. The study of pure science, in the form of the various branches of mathematics, also furnishes a good mental discipline.

Aesthetic and Religious Training

At puberty there is a somewhat sudden growth in the aesthetic and religious senses, so that this aspect of education should not be neglected during the adolescent stage. Even a child has some appreciation of rhyme, rhythm, and harmony. At puberty a new interest in music is acquired. Music appears at this period first to touch some secret spring in human nature, and to awaken strange feelings of pleasure—feelings which are often associated with love and religion. Speaking of music, Stanley Hall says: 'For the average youth there is probably no such agent for educating the heart to love God, home,

nature and country.' With the exception of class singing, training in the various methods of musical expression is best carried out in the home, for there are only certain persons endowed with sufficient musical sense to ever become expert instrumentalists. In order to develop an intelligent appreciation of music the majority of pupils at school should have an opportunity of listening to the masterpieces of the great composers, and with this object in view municipal authorities might more often arrange for good concerts in their parks and halls, with free seats for students, and organ recitals might more frequently be given in churches at convenient times on week-days. Comparatively little time will be found at school during the adolescent stage for drawing or painting, except when co-ordinated with natural history, manual and domestic training. But appreciation of the beauties of nature and of art should be stimulated by nature rambles and visits to art galleries. Municipal authorities might encourage such education by giving students free passes on trams to enable them to get into the country, and by obtaining the temporary loan of great works of art from other towns and national galleries.

The three most important agencies for moral and religious training are the home, the school, and the church. On these subjects the teaching of the home and the church will necessarily be more definite and direct than that of the school. In school the broad foundation of morality should be laid, and the fundamental religious conceptions which are common to all mankind should be studied. The entire discipline of the school and the personality of the teachers have

a powerful influence in moulding the moral conduct of the pupils. In teaching history, civics and literature many illustrations may be found of right and wrong conduct in life, of the value of high ideals, of the dignity of self-control, and of the glory of disinterested service. Moral precepts, no matter how often they are repeated, will have little permanent effect unless they appeal to some ideal which is superior to individual reason. This supra-rational force is found in religion. Since religious truths are unverifiable, no human being can convince another of their reality, and consequently whatever beliefs are held must be a matter of personal conviction. Science teaching, which reveals the laws of nature, is a most important factor of moral training, since most persons are led to reason upward from things created to the Creator, to find God as the personal cause of all, and possibly to feel with Wordsworth that God is

> *A Motion and a Spirit that impels*
> *All thinking things, all objects of all thought,*
> *And rolls through all things.*

Such a conviction of the immanence of God must powerfully affect man's conduct, raise his standards of altruism, and enlarge his conceptions of human brotherhood.

The character of education during studentship should be more individualistic and utilitarian than in former stages. It is the period for specialization and technical study. To meet individual interests, opportunity must be given for cultivating the higher branches of science, literature and art, especially those branches which have direct bearing on the

actualities of life. At this stage the conventions and traditions of school must be largely relaxed. Provided the students observe the ordinary rules of propriety, they should not be tied down to specific regulations. This atmosphere of freedom gives rise to a feeling of responsibility, and stimulates the growth of self-respect and individuality. The ideal attitude of teacher to student should be one of comradeship. The teacher should not rule, but inspire. He should endeavour to establish ideals, and arouse desire and enthusiasm in attaining them. He should encourage serious reading, and be ready to recommend books on matters of general interest. The students should have an opportunity for discussing in debating societies human action and character and other subjects of which they read. Such debates not only give a chance of comparing their views with those of others, but afford a good exercise in public speaking and create a vigorous mental attitude.

With respect to women students, they should all be thoroughly trained in domestic economy. Considering that their most important function in life is bearing and rearing children, they should equip themselves for their future work by studying the science of child-rearing. These subjects are truly educative in their effect, especially if the studies of heredity and eugenics be included.

X

HABITS AND YOUTH

SIR ALFRED PEARCE GOULD, K.C.V.O., M.S., F.R.C.S.

President of the Clinical Section of the Royal Society of Medicine; late President of the Medical Society of London; Senior Surgeon to Middlesex Hospital; Member of the Senate of the University of London; Author of 'Evolution of Surgery,' &c.

I am—I know—I can—I ought—I will

ST. AUGUSTINE.

The secret of happiness is renunciation.

ANDREW CARNEGIE.

He that labours is tempted by one devil, he that is idle by a thousand.

ARIOSTO.

If thou would'st conquer thy weakness, thou must never gratify it.

WILLIAM PENN.

Habits are soon assumed ; but when we strive to strip them off, 'tis being flayed alive.

COWPER.

Evil was called Youth till he was old, and then he was called Habit.

R. L. STEVENSON.

It is only necessary for one vicious habit to become established and expand in order to throw the whole mind out of balance.

CHARLES WAGNER.

Self-respect, self-help, application, industry, integrity—all are of the nature of habits, not beliefs. Principles, in fact, are but the names which we assign to habits ; for the principles are words, but the habits are the things themselves.

SMILES.

X

HABITS AND YOUTH

WHEN an action has been so often repeated that on the recurrence of the circumstance that first called it forth it is repeated without any conscious or voluntary effort, we call it a habit. Every action is the result of a nerve current passing along certain nerves to particular muscles which then contract or relax. This nerve current or 'motor impulse' is itself the result of a stimulus or excitement of a certain nerve cell or cells in the central nervous system, the stimulus being a sensory impulse or nerve-current passing up to the nerve-cells, or originating in the nerve-cells as the result of certain chemical and nutritive charges in the protoplasm of the cells. Nearly all our actions are the sum of several nerve-waves passing from many nerve-cells or centres, along many nerve-fibres to many muscles and even many groups of muscles. One of the great aims of early education is to facilitate the correct grouping of these nerve-currents so that the appropriate muscles are contracted and relaxed at the right time and in due succession. The development of the brain from childhood to manhood consists in the formation of nerve-links

between various nerve-cells and centres, and in the multiplication of the originating cells. The result of this development is to increase the range of one's activities, but chiefly to make certain actions involuntary, that is, independent of the will; certain other actions are largely involuntary, that is, independent of the will as to detail. When this has been accomplished, habits have been formed. When a conscious voluntary act or series of acts has by frequent repetition become unconscious and involuntary, it is a habit. But habits have a wider influence than upon our acts only, they largely dominate our emotions too. It used to be thought that emotions prompted and found expression in actions, but we now believe that actions excite emotions, and that, by training, a certain action or series of actions can be made more or less powerful exciters of emotions. For example, a boy who has a money-box given to him and repeatedly drops his pennies into that box, by that often-repeated act excites the emotions of greed and of love of possession. In later life the act of investing money, often repeated, excites the emotion of love of money, and the miser grudges himself other indulgences that he may be able to excite his favourite emotion by repeatedly investing money. The traditional miser does not count his money and handle his coins because he loves them, but because the action starts within him the, to him, pleasurable emotion of greed. Habits, then, are actions which by frequent repetition have become independent of the will, but they are of importance not only because they influence a man's acts, but also because they influence his emotions.

The Formation of Good Habits

The primary object of all education is the formation of good and helpful habits. By the formation of habits useful acts are made easy, rapid and certain. What we call a 'skilled' workman is one who has acquired the good habits of work. He becomes so, not by inheritance or initial advantage, but by careful attention to accuracy and exactness, until it has become a habit with him to do everything right—accurately, exactly, without flaw or failure—and we then call him 'skilled.' Or perhaps he has earned the title 'skilled' by the extreme rapidity with which he does his work. And this, too, is merely the result of habit, for he has so trained his nervous system that when at work the necessary nervous impulses follow each other along the familiar path quickly because that particular path is always kept open and unimpeded, and the connecting nerve-links have been made as short as possible.

So far as the activities of life are concerned, habits make our actions easier, quicker, less exacting and fatiguing, because our higher nervous powers, volition and attention, are less called upon. As regards the emotions, habits are of value because they can be linked on to good and helpful emotions, and made incapable of exciting depressing or evil emotions. The same daily work may in one man excite emotions of pleasure, satisfaction, benevolence, and in another the emotions of loathing, disgust, and ill-will. It becomes then of great importance to have our daily necessary or customary actions linked up with helpful, good emotions, and to have the links between our

acts and evil emotions as defective and faulty as possible.

No 'habit' is inborn or intuitive; it has to be acquired. No doubt some acquire given habits more readily than others. The time for habit-formation is the period between birth and full manhood, because every habit has a corresponding association of nerve-cells and nerve-fibres, and these associations and developments can only take place during the period of development. Habits can be influenced in later life by the exercise of the higher nervous powers, but at relatively great cost, and the very purpose of habits is to render unnecessary this expenditure of the higher nerve powers.

Habit Formation in Youth

The special feature of adolescence as distinct from childhood is that in the period of youth the individual's freewill comes into play. During infancy and childhood the developing unit does what he is told to do, and education is largely the outcome of obedience. Gradually, as childhood passes into youth and youth into manhood, the individual's will comes more and more into active play either to assist or to resist the development of good and useful habits. The power of the will in this direction is enormous; it makes the difference between the good and the bad apprentice, between the scholar and the dunce, between the student and the idler. Those who have the opportunity of influencing youths, especially all parents and teachers, should be keenly alive to this fact and should do their utmost to bring to the help of educational methods the active intelligent will of the pupil.

One of the most valuable lessons an elder child can learn is his own power of making the process of education easy and effective. Too many think of the 'drudgery' of work, and are all the time looking forward to escape from it and from its discipline—surely this is the very antithesis of education! When the power of work to make work easy is realized, and the youth knows that by 'throwing his heart into' his work—that is, adding the force of his will—not only is the work in hand made lighter, but all work of the kind made easier in the future, and his character as a good workman formed, toil becomes transformed. The realm of habit is larger therefore than those moral characteristics which are first thought of when we speak of a man's 'habits.' To acquire or to fail to acquire useful habits in this wider and truer sense is to succeed or to fail in the prime purpose of education, and in the realization of manly development. The charm, the preciousness, of the period of youth is that in its short compass lies the vast possibilities of all that habit involves. It is not merely a time of growth, or mere extension, for good or for ill; the man is not a larger, stronger, more learned child, but he is a developed child, a child who has acquired habits.

But in the more limited range which is associated with the word our personal habits are of great importance. Such characteristics as truthfulness, honesty, self-control, unselfishness, cleanliness, neatness, punctuality, are of almost untold value. They, like habit in general, are all acquired; they are, too, acquired readily in childhood and youth, and they can only be acquired quickly and pleasantly when the

educational help of others is supplemented by the cheerful good-will of the pupil. They are not best instilled by a system of rewards and punishments; each of them is its own supreme and abundant reward, as the want of any one of them brings its inevitable and heavy punishment. Nor should they ever be regarded as unusual adornments of a model life: they are the ordinary and necessary features of every well-developed life—and should be looked upon as commonplace and just as natural as an upright stature, straight limbs, and strong muscles are in a well-grown man. Good habits are not special adornments, but the rightful possession of every properly developed youth. How far this is realized in our homes and schools and colleges, our fields and our factories, it is not for me to discuss here. But it is to the perfecting of habits that we must look and for which we must strive, ever remembering that 'Habit maketh man.'

XI

THE ETHICS OF YOUTH

PROFESSOR JAMES ALEXANDER LINDSAY, M.A., M.D., F.R.C.P.

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Education is an atmosphere, a discipline, a life.

MATTHEW ARNOLD.

Education has for its chief object moral culture and the formation of character.

BULOW.

Every child ought to be trained to conform his will to the demands of duty.

TRUMBULL.

Think truly . . . speak truly . . . live truly,
And thy life shall be a great and noble creed.

BONAR.

The religion of a child depends on what its mother and father are, and not on what they say.

AMIEL.

Now abideth Faith, Hope, Love, these three; and the greatest of these is Love. . . . Love is the fulfilling of the Law.

ST. PAUL.

Sow truth if thou the truth would'st reap,
Who sows the false shall reap the vain;
Erect and sound thy conscience keep;
From hollow words and deeds refrain.

Sow love, and taste its fruitage pure;
Sow peace, and reap its harvest bright;
Sow sunbeams on the rock and moor,
And find a harvest home of light.

H. BONAR.

XI

THE ETHICS OF YOUTH

THE problem of the ethical training of Youth is threefold, viz. (1) To recognize the moral characteristics normal for the period; (2) To inculcate, both by precept and example, the motives, ideals, and principles of conduct which are likely to build up character in general, and to guard against the special dangers of adolescence; (3) To prepare the youth of both sexes for their probable future life-work.

THE PSYCHOLOGY OF YOUTH

'The central fact of adolescence,' says Professor Slaughter, 'is emotional change. . . . The child is in all essential respects egoistic and self-centred, and the most general and appropriate description of adolescence is that it implies an outward orientation of the feeling—life. This is accomplished through the development of a new order of sentiments or systems of emotional regard, with the consequent formation of a new series of values, and, therefore, of new interests. Childish sentiments are directed to the immediate environment of things pertaining to the self; adolescent sentiments are directed to a

variety of objects, most of which require that the self be adapted to them.' Youth is the period of the formation of ideals, of a vague reaching out after a world half realized, of the first stirrings of half-comprehended but all-important instincts. It has the restlessness of a period of instability; the faults of temper and action, largely due to the fact that emotion is potent while will-power is weak; the intellectual aberrations depending upon strong imagination not yet adequately controlled by experience. What are commonly regarded as 'faults' in the adolescent, of either sex, are often more philosophically interpreted as simply the imperfections inherent in a stage of incomplete development. The social instinct is still weak. Ambition is often strong, but ill-defined. The boy dreams of being a hero, a soldier, an explorer, a discoverer, an artist, an author or a statesman; the girl has some analogous ambition appropriate to her sex. The sense of duty is still relatively weak, and effort has to be stimulated by emulation, by the hope of reward or the fear of punishment. Attachment to individuals is strong, and may take on almost a romantic colour—hence the great importance of suitable companionship. The power of sustained exertion is much stronger than in the child, and rapidly increases as adolescence proceeds. The capacity to bear pain or fatigue without grumbling grows quickly at this period, and the control of the outward expression of the emotions is gradually acquired. Things denominated 'childish' are held in high disdain, and the sense of self-importance related to the age-period is often well-developed.

The religious instinct varies greatly. It may be extremely sensitive at the very outset of adolescence, while many boys and girls are almost devoid of it, and apart from the influence of parents, teachers, or religious instructors, take a frankly pagan view of life. The religious sense is no longer naïvely animistic, as in the child, while it is not yet 'spiritual' or 'positive,' as in the adult. The terrors of religion, when these are unwisely inculcated, take deeper root than any sense of guidance or practical control. The sense of the need for consolation is still dormant. The great lesson of life that 'as we sow, so shall we also reap,' is still unappreciated. The present fills up almost the whole of the picture; the future is dim, distant, and unreal. The influence of habit upon destiny is not understood. 'Could the young realize,' says William James, 'how soon they will become mere walking bundles of habits, they would give more heed to their conduct while in the plastic stage.' But it is the fate of adolescence not to realize a truth which is brought home to most of us only by experience.

The artistic sense is usually active during adolescence in those individuals who are gifted in this department. Nearly all great musicians, and many great poets and artists, have exhibited some foreshadowing of their powers in the early years of adolescence, if not earlier. We should never forget that the adolescent is not an end in himself or in herself. He or she is only a human being in the making.

Character Training in Youth

This is a large subject and can be dealt with only in outline. Some broad principles are clear enough.

Example has more weight with the adolescent than precept. The influence of a strong, wise, tender personality—whether that of parent, teacher, schoolmate or friend—is worth a million sermons or whole libraries of books, while the parent who is eloquent at family prayers, but ill-tempered, selfish or tyrannical in actual life, inflicts an injury upon youth which nothing can undo. The adolescent dislikes and distrusts 'goody-goody' talk, and has a keen insight into the gulf which often yawns between profession and practice. Dogma and dogmatic teaching make little appeal, and the catechism is often only mechanically memorized, but the adolescent is often a very shrewd judge of character. Some boys and girls, especially those of a shy, retiring, gentle type of character, are sometimes misjudged by their schoolmates, but in general the verdict of the adolescent world upon its individual members is final. Its verdict upon its teachers is less trustworthy, but is never devoid of value. The school-boy who said of the late Archbishop of Canterbury when he was head master of Rugby that 'Temple is a beast, but a just beast,' showed that instinctive sense of fair-play characteristic of the British school-boy or school-girl. The schoolmaster who wishes to gain and retain the respect of his scholars may be harsh or severe or exacting, but under no circumstances can he or she afford to be underhand, untruthful, or unjust.

The adolescent mind responds readily to judicious teaching on fundamental morals, if given naturally and without severity on the one hand, or unctuousness on the other. The supreme requirement of truthfulness, honesty, and straightforwardness appeals

strongly to the adolescent mind, which detests the liar, the tale-bearer, and the sneak. This is one of the most wholesome elements in the nascent moral consciousness of youth, and every opportunity should be embraced to cultivate and develop it. Courage is much admired by the young, but they need to be often reminded that, as civilization evolves, physical courage becomes less important, while moral courage —the quality which braves obloquy in the discharge of duty, which holds to truth and uprightness 'in scorn of consequence,' which can bear unpopularity but not an accusing conscience—becomes more and more important.

Another virtue which the adolescent can readily be got to appreciate is industry, and the proper utilization of time. It is a fact that some of the most gifted boys and girls are naturally indolent, but more often exceptional talent is co-ordinated with exceptional energy. The average boy and girl are not difficult to persuade that industry is a desirable quality, that idleness is reprehensible, and that 'whatever is worth doing is worth doing well.' A sentence like that of Bacon, 'He that is young in years may be old in hours, if he have lost no time,' might form the text for many a school homily, and, indeed, might well be engraved in letters of gold upon the walls of our school-rooms. Cleanliness of person and neatness of dress are obligations which should be strictly enforced upon the adolescent, as the ground both of health and propriety. While it is eminently undesirable to occupy the mind of youth with medical questions or any form of morbid self-scrutiny, it should be possible to inculcate the duty of keeping the body pure and in

perfect order as one of the most sacred of moral obligations. This duty might be presented in various ways. To some the conception of the body as the most wonderful of mechanisms, as a miracle of complexity, beauty and adaptability, will make the strongest appeal, while to minds of a more spiritual cast the thought of the body as, in mystical language, 'the temple of the Holy Ghost,' will stir deeper emotions. To both these types of mind sins of impurity may be presented so as to excite feelings of disgust and repulsion. The subject is, of course, difficult and delicate, but it cannot be safely shirked. It is one of the unfortunate features of present-day civilization that the youth of both sexes are left entirely, or nearly entirely, without guidance as to the facts of the sexual life, just at the time when the sexual instinct awakens. It is much to be desired that some way out of this real and practical difficulty could be discovered, and no way seems so promising as the dissemination amongst the young of the rudiments of human physiology. Facts which stir undesired emotions, if approached through the channel of unseemly jest, erotic poetry, or the neurotic novel, can be imparted with safety and with salutary effect in the calm atmosphere of the class-room. It is not the facts of nature which defile the imagination, but their prurient presentation.

The adolescent mind responds readily to the conception of discipline, the necessity of obedience, of the respect for elders, parents and teachers. Youth despises the slack hand, although it is only too ready to take advantage of it. The claims of the home and the sanctity of family life will awaken echoes in the

mind of youth, while, as adolescence advances, opportunity should be taken to rouse the dawning sense of public duty, of patriotism and citizenship.

Religious Training in Youth

How far, and in what form, religion should be presented to the adolescent mind is a question upon which it is idle to expect a general consensus of opinion. The various Churches have their own theories on the subject. A few principles may, however, be safely laid down. Dogma should be subordinated to conduct. Abstruse and terrifying doctrines should be handled with extreme caution. Christianity should be presented as a spiritual and ethical ideal, and as a rule of life. Sin should be painted as a misuse of life, a degradation of true manhood and true womanhood, a fatal handicap to all noble endeavour and real usefulness, a closing of the eyes of the soul to all high impulses and spiritual verities. Conversion should be described as the willing and glad surrender of the lower to the higher self, as the voluntary adoption of the higher life of love, duty, and service—not as a magical transformation. The obligation of the individual to the social organism of which he forms a part, should be gradually suggested to the growing moral intelligence. The baseness of hurting the feelings, wounding the innocence, or injuring the interests of a fellow creature should be inculcated. Foul language or loose conversation should be sternly repressed. The conception of an over-ruling Providence, which rewards good and punishes evil, should be enforced. Life should be viewed as a period of probation and a training-ground

for developing all the innate aptitudes and powers of the soul. The truth that character-building—not material success, social distinction or wealth—is the principal thing, should be set forth, but quietly suggested rather than unduly harped upon. The adolescent mind is extremely suspicious of what it suspects to be 'only preaching.'

Punishment in Youth

Wise men and wise women hold different opinions upon the vexed question of punishment. To me corporal punishment appears as a remnant of barbarism, and connotes the bankruptcy of discipline. It is bad for the youth, and worse for the parent or teacher. The youth thinks that when he has received his stripes he has paid his score and that the past is wiped out. The sense of moral obligation and the stigma of moral failure are thus weakened. The parent or teacher has his temper ruffled, and his self-respect lowered. I know one important school where the task of chastisement is laid upon one of the porters, the head master having no stomach for the duty. The age of the flogging school-masters is passing—not before it was time.

The Preparation of Youth for Life-Work

Parents are often bad judges of the capabilities and probable future career of their children. Boyish and girlish tastes are no true criterion of the most suitable life-work for the individual. Apart from artistic faculty, which is a very real thing, e.g., a good ear for music, very few youths show special aptitudes. There

are few or no heaven-born lawyers, engineers, soldiers, doctors or clergymen. Newman in youth wished to be a soldier, while he was really a spiritual genius. Beethoven hated music in his boyhood, and had to be driven to the piano. Goethe's early ambition was to be an artist. Two things are clear—genius will make its way in spite of all obstacles; and moderate talent, coupled with character and industry, will make a success of anything. Edison is certainly wrong when he says that 'genius is one part inspiration and ninety-nine parts *perspiration*,' but it is impossible to over-rate the importance of diligence, perseverance, and definite purpose in the struggle of life. A boy should be allowed some liberty of choice as regards his life-work, and should not be forced into a career which he dislikes, but in the case of most boys it is not a matter of vital moment which particular line of work is selected. Once a choice is made, there should be no looking back. It is quite a mistake to begin too soon to specialize in education with a view to prepare for certain careers. That is a good principle for a mechanic—a bad principle for a gentleman. The more general education the latter receives, the better it will be for him.

The future work and position of woman in the world being still in a large measure undetermined, it is difficult to say anything regarding woman's work in the evolution, safeguarding, and training of youth. It will be gradually made clear by experience. In the meantime all artificial barriers should be removed. Women should be encouraged to do any work which they can do well. Girls should be educated on broad lines, and their characters developed so as to fit them

for any career which they may subsequently select. But sex is a tremendous fact, and those who look forward to women filling with success all, or nearly all, the positions now occupied by men, are destined to a certain, if slow, disillusionment. '*Naturam expellas furcâ, tamen usque recurret*'—the proverb is a little musty, but its wisdom is not obsolete.

Finally, the youth of both sexes should be warned betimes that the world is not an easy place, that life is a battle, even for the fortunate, that 'sunshine and rain' are strangely intermingled. They must learn 'to endure hardness,' to be watchful against formation of habits of crippling self-indulgence, to be niggards of their time, chary of mere amusement, watchful of the health of body and of spirit—in fine, to be diligent, patient, calm and brave.

XII

YOUTH AND CITIZENSHIP

ROBERT MURRAY LESLIE, M.A., B.Sc., M.D., M.R.C.P.

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Be prepared.

MOTTO OF BOY AND GIRL SCOUTS.

None of us liveth to himself.

ST. PAUL.

Life is but a short day, but it is a working day.

HANNAH MORE.

Live and love,
Doing both nobly, because lowly,
Live and work, strongly, because patiently.

E. B. BROWNING.

Knowledge is a steep which few may climb,
While Duty is a path which all may tread.

L. MORRIS.

Perfect valour is to do without witnesses what one would do before all the world.

ROCHEFOUCAULD.

Wherefore take unto you the whole armour of God, that ye may be able to withstand in the evil day, and having done all, to stand. Stand therefore, having your loins girt about with truth, and having on the breastplate of righteousness: and your feet shod with the preparation of the gospel of peace; above all, taking the shield of faith, wherewith ye shall be able to quench all the fiery darts of the wicked. And take the helmet of salvation, and the sword of the Spirit, which is the Word of God: praying always with all prayer and supplication in the Spirit, and watching thereunto with all perseverance.

ST. PAUL.

XII

YOUTH AND CITIZENSHIP

THE term 'youth' is here used as being more or less synonymous with 'adolescence' taken in its wider sense and not restricted to a limited period of life immediately following puberty. Youth may be said to correspond to the third of the septennial periods of developmental life. Early adolescence is the most interesting, important, and critical of all perils. The boy and girl now begin to put away childish things, and wake up to the wonderful possibilities which life may have in store for them. It is *par excellence* the age of responsiveness to external impressions of all kinds, whether physical, emotional, intellectual, moral or religious. It is in youth that decisions are made, tendencies formed, and habits acquired and matured, all of which will profoundly affect for good or evil, not only the individual's character and future career, but his or her value as a citizen. If we can inspire the growing youth of both sexes with high civic ideals and make it possible for them to be actually carried out in practical everyday life, then we have done much towards fostering vigorous and efficient citizenship. Many of the social,

racial, and national evils of the present day may be directly traced to the fact that no organized attempt is made to direct the energies of youth into channels along which they may be exercised to the advantage of the community.

Youth and the State

According to Kerschensteiner, the function of a modern state is two-fold : (1) Care for its own preservation ; and (2) attention to the welfare of its members. We are more immediately concerned with the second function. Every enlightened state realizes the necessity of providing a suitable environment for the growth and development of the rising youth of the country. Feeding, clothing, physical training, hygiene, housing and education are all matters which the modern state must take cognizance of and be responsible for. It must not be forgotten, however, that the State in its turn demands that the youth of the country shall realize that they are essential members of the body politic, and shall devote their talents not to pure self-aggrandisement, but for the welfare of the community. At the same time it must be clearly understood that before a man can become a good citizen, he must first be an efficient workman, and self-supporting so that he shall never become a burden to the State. Efficiency in work is the best preparation for civic efficiency. The latter, however, means something more, and in a good citizen, efficiency in work must go hand in hand with interest in social welfare and national progress.

Home Life and Youth

If we are to have good citizens it is of paramount importance that the homes of England shall be permeated by a spirit of social fellowship in the respective family relationships, by sympathy for the poor, and by a general interest in social, industrial, moral, spiritual, and even political questions. Parents have boundless opportunities both in connexion with village and town life of making their boys and girls realize the evils of poverty, over-crowding, indolence, disease, and errors of thought and life, and the corresponding advantages of foresight, industry, hygienic surroundings, and pure drinking and living. It is impossible to over-estimate the value of home influence in fostering civic virtues. Incidents are constantly occurring in every home, illustrating the value of obedience, self-sacrifice, and fulfilment of duty, all of which tend to promote self-discipline and self-control, and so to strengthen character, which is the all-important element in good citizenship. The parents also have unrivalled opportunities of inspiring ideas relating to physical fitness, moral and civic obligations, patriotism, sex chivalry, the duties of the strong towards the weak, and of the rich towards the poor, and other questions of like importance. Such practical lessons will sink into the minds of their sons and daughters and encourage them to observe and investigate social conditions for themselves, and to acquire further information from parents, friends, and teachers. Wall-pictures depicting incidents of self-sacrifice and patriotism have their value in inspiring high ideals, while much may be done by

providing a judicious selection of books dealing with social, industrial, and political questions, and with the lives of public-spirited men and women. Hero and heroine-worship, so natural to the adolescent, may be made to serve an excellent purpose, particularly when the objects of admiration are those who have lived, worked and died for the benefit of their country and race. Upon the parent, too, devolves the all-important task of giving home instruction wisely and judiciously to the youth of both sexes in regard to the fundamental facts of sex and life—a duty the neglect of which may be followed by irreparable damage to the usefulness of the future citizens.

School and College Life and Youth

The value of school and college education must not be judged by the amount of abstract knowledge acquired by the senior pupils, but by its influence ind eveloping character, shaping conduct, and generally encouraging civic virtues. The acquirement of habits of self-discipline, of conscientious thoroughness in the performance of educational work and of fidelity in the fulfilment of all duties is of inestimable value. It is possible for a pupil to be taught to love duty for its own sake as well as to be faithful in its discharge. The vice of 'slackness' which characterizes certain pupils must be eradicated at all costs, as a 'slacker' can never become a good citizen. The exercise and training of the will is of much more importance to the future citizen than mere intellectual attainments. Lecky states that nothing which is

learned in youth is so really valuable as the power and the habit of self-restraint, of self-sacrifice and of energetic continuous and concentrated effort, while there must be a strong restraining will based upon a firm groundwork of principle and honour. Fortunately the régime of a well-conducted school or college necessitates self-discipline and obedience to authority, while the possession of such civic virtues as courage, frankness, loyalty, truth and a sense of honour will always win for boys and girls the esteem of teachers and comrades alike. Boys and girls accustomed to sacrifice their own convenience and comfort for the honour and glory of the school, will be more likely to make corresponding sacrifices in later life for the honour of the country and the benefit of the community. It is noteworthy that many German educational authorities admit that English Public Schools are often more successful in turning out boys qualified for leadership and pioneer work at home and abroad than the much better-equipped Gymnasia of their own country, which devote themselves almost exclusively to providing intellectual acquirements and expert knowledge. Certain subjects of study—notably history, geography, and national classic literature—specially lend themselves to inspire civic and patriotic ideals. In the history lesson vivid pen-pictures of great personages and of important national events should be combined with some account of the principal social and economic conditions, and religious movements. A better knowledge of the geography of the British Empire and its dominions would do much to engender a due appreciation of its greatness,

while some acquaintanceship with the nation's weaknesses, as well as its strength, will not only foster patriotism, but promote good citizenship. William Temple states that it should be quite possible to arrange for every boy in the sixth form to become acquainted with the main public events and social changes of the last century, and above all, with some of the main features of the present social and industrial situation.

In the case of the artisan and industrial classes, the youth of which form the bulk of the young people of the nation, and who leave school at the early age of 14, *continuation schools* or classes are an absolute necessity. At present, these boys and girls are suddenly released from school discipline at the most critical period of their lives, when there is a serious risk of their being overwhelmed by the rising tide of new forces and by the evil influences which surround them on every side. Kerschensteiner, the founder of the famous Munich system of continuation schools, is of opinion that everything depends on the influence exerted on the pupils between the ages of 14 and 18, and civic education he considers more important than the purely utilitarian methods of study adopted in the various technical and industrial institutes. In Munich there are no fewer than 43 different technical continuation schools for apprentices of skilled trades, with 80 lecture rooms and 60 workshops. The various polytechnic institutions in London and in the large provincial centres of England serve a similar purpose, but their numbers are far from sufficient to meet the growing needs of the community.

Youth and Athletics

The ambition to excel in games and athletics so characteristic of English youth, conduces to the development of a manly race, and this is now so well recognized that other nations—notably France, Germany, Sweden and America—are following in England's footsteps. The widespread interest in the international Olympic games and the athletic rivalry thereby engendered bears out the truth of this statement. Not only do such games as cricket, football, tennis or golf promote physical development, but they also produce quickness and alertness of eye and mind, and also train the youth of the country in quickness of decision, in subordination to discipline, in self-control of body and mind, and in *esprit de corps*, while at the same time they encourage a love of fair play, thoroughness, and a spirit of enthusiasm, which are such valuable civic virtues in the after conflict of life. Games also form an unrivalled field for the outlet of youthful exuberance which might otherwise expend itself in vice and dissipation. Girls also are now beginning to take an active part in many games and sports and to learn similar lessons in regard to honour, thoroughness, loyalty and enthusiasm, while they at the same time lose a great deal of pettiness in their zeal for the success of the team to which they belong. Such qualities are essentially desirable from the point of view of the citizen.

Lecky, who was of opinion that athletics held an exaggerated prominence in the lives of young Englishmen, freely admitted that athletic games gave lessons

in courage, perseverence, energy, self-restraint, and cheerful acquiescence in disappointment, all of which are of no small value in the formation of character. Athletics also tend to check in the case of the youth of the upper classes the growing love of luxury so prevalent in modern times. In order to excel in athletic sports it is necessary to undergo a certain amount of hardship, self-sacrifice, and self-discipline.

The Influence of Corporate Life

A special chapter might well be written on the influence on citizenship of the various corporate movements amongst boys and girls so characteristic of the present age. In addition to the countless organizations to promote the welfare of young people to be found within the confines of the various churches and religious denominations, there are innumerable agencies devoted to the development of social instincts and to the cultivation of civic qualities. We have Boys' Brigades, Alliances of Honour, Welfare of Youth Associations, Girls' Guilds, Girls' Clubs and Girls' Friendly Societies, White Cross Societies, Literary and Debating Societies, and the more recently instituted Boy Scouts, Girl Guides, and Juvenile Health Crusaders. Most of these have ramifications throughout the country, and not a few publish and distribute books and pamphlets which are widely read and exert an immense influence in inculcating high social ideals amongst the rising youth of the nation.

The Boy Scout organization has spread widely, and taken deep root all over the country, and is

undoubtedly one of the most valuable movements of recent times. It has now spread all over Europe and America. Lord Kitchener recently made the following statement in regard to the Boy Scouts: 'The more I know of the Scouts organization, the more admirable I think it is, and the more fully persuaded I am that it should appeal strongly to all fathers and mothers who desire to bring up their sons well. It breaks down class-prejudice, promotes comradeship, discipline, resourcefulness, self-reliance and sympathy. Its ideals are the highest Christianity and patriotism, and later, when these scouts are grown-up, what prouder title can they aspire to than to be known as true men and pure patriots?' Boy Scouts and Girl Guides alike, in addition to becoming stronger physically, mentally and morally, become amenable to discipline, and are made to cultivate habits of self-control and to care for the well-being of others as well as themselves.

The Juvenile Health Crusade, though a movement of very recent date, already numbers its members by thousands, and is spreading with wonderful rapidity. The crusaders are not only taught but are made to practise at home the rules of health, the ambition of each girl and boy being to grow up into healthy manhood and womanhood. All these movements are closely allied, and all are working for a common object—the attainment of good citizenship. Patriotism is encouraged and fostered by these corporate movements, and the sovereign has no more loyal subjects than the budding citizens belonging to these organizations, who have already been taught to salute the flag on Empire Day.

Adolescent Girls and Citizenship

In discussing the adolescent tendencies of the day it would be impossible to overlook the widespread movement for the higher education of girls. This higher education has gone hand-in-hand with a general all-round emancipation. Girls are freely admitted to the highest intellectual training at colleges and universities. There is a growing desire to be independent and to exercise civic functions apart from any domestic duties which may, or may not, fall to their lot. There is a revolt against long-imposed restrictions, and girls have now free entry into most of the professions, vocations, and spheres of labour previously reserved for the other sex. There is, however, a danger of the modern girl's freedom and independence making her lose sight of her own special and essential duties in the home sphere. A healthy reaction is now setting in, and in some of the more advanced girls' colleges pupils are being taught to realize the paramount importance of women's special duties and responsibilities as contrasted with the acquisition of mere self-culture or intellectual attainments. The ideal of citizenship for women cannot in the nature of things be quite the same as that for men.

Dr. Mary Scharlieb states that 'every girl ought to be so educated and guided as to instinctively realize that wifehood and motherhood is the flower and perfection of her being,' and that 'such an ideal would sanctify her lessons and sweeten the right and proper discipline of life, while all learning, all handicraft, and all artistic training,

should take their place as a preparation for this end.'

At the same time all this need not interfere with a liberal standard of education, which, as Miss Ravenhill so well expresses it, 'must take into account the special capacities and requirements of a more complete womanhood than was conceived of in the past.' This writer adds that woman's great and incomparable gift of motherhood must be set in a new light, and shown to involve a broader and larger culture, if it is to be turned to its fullest account in later life. Girls are beginning to realize that the adequate and intelligent fulfilment of domestic duties is a form of active citizenship calling for the full exercise of a trained mind. Continuation schools and classes are quite as necessary for girls as for boys after school age. At this period of dawning womanhood it is of special importance to instruct girls in the duties and responsibilities both of citizenship and parenthood. The newly-established Domestic Science department at King's College and other educational centres will, it is hoped, be of considerable value in inducing clever, highly-educated girls to realize the civic and national importance of the duties and responsibilities connected with home and family life.

The 'half-timing' system has not been a success in ordinary school life, nor is it likely to be any more successful as a substitute for Continuation Schools. The girl of 14 or 15 who has been working hard all day is not in a good condition to benefit by two or three hours' study at an evening school.

In the upper classes girls should be encouraged to take up some social employment or hobby, so

that their lives may be filled with interesting duties. Nature abhors a vacuum, and idleness is a fruitful source of many evils, and generally leads to excessive indulgence in pleasure and to disregard of duty and personal discipline.

The more women realize the supreme value of their citizenship in certain spheres, and equip themselves for the efficient discharge of the accompanying duties and responsibilities, the more will their co-operation be sought in the solution of many of the most pressing social problems. Such ideals of citizenship ought to be implanted in the minds of girls at a comparatively early stage.

There has been much discussion in regard to the question of the *co-education* of boys and girls during the adolescent period of life. Co-education is regarded by not a few as the solution of many problems affecting the physical and moral well-being of adolescents. It is confidently stated that boys by coming much in contact with girls, both in the class-rooms and playing-fields, unconsciously gain a chivalrous and intellectual respect for the sex as well as for the individual, while a girl's general outlook on life is widened by such contact. The girls become less self-conscious, and the boys seem to gain both in manliness and true chivalry. The charge brought forward by critics of co-education, to the effect that there is a tendency for boys to become 'namby-pamby' and deficient in masculine virility, is absolutely denied by those who have the most intimate knowledge of the English co-education colleges. Whatever divergence of view there may be in regard to the value of co-education, there is general consensus

of opinion in favour of free social intercourse between adolescents of both sexes belonging to the same class of life. This is a most powerful factor in the prevention of sex evils which are said to be non-existent in well managed co-education institutions.

Youth and Eugenic Ideals

The new science of Eugenics, knowledge of which is now becoming rapidly diffused throughout the country, aims at, and often succeeds in, inculcating a love of biological fitness among young adolescents. The science has two aspects. In the first place, there is negative (restrictive) Eugenics, which by means of State interference and through the influence of enlightened public opinion, seeks to prevent moral and mental degenerates from marrying and producing their like ; and secondly, there is positive (constructive) Eugenics, which aims at ensuring that the fittest persons of both sexes shall marry and become the parents of a larger proportion of the future race. An elementary knowledge of Heredity, on which the science of Eugenics is based, and of the main facts concerning hereditary disease, is essential. Boys and girls should be taught the necessity of keeping themselves at the highest level of physical, mental, and moral health for the sake of the future of the race to which they belong. They are even now being taught in Continuation Schools, in college class-rooms and elsewhere, that *preparation for the duties and responsibilities of right parenthood constitutes the greatest citizen service they can render to the community.* It is many years since Herbert Spencer wrote that the greatest defect in our programme of

education lay in the fact that no care is taken to fit our young people for the position of parents. No longer, however, will it be permissible from motives of false delicacy, to withhold knowledge regarding sex and the fundamental facts of life from our growing boys and girls—the future citizens of the Empire. Such knowledge should be assimilated by the younger generation in the early years of adolescence before the age of parenthood be reached, and when, owing to the plasticity of youth, the facts can be so grasped as to become second nature and part of their very being. When brought face to face later on, as is inevitable, with misconceptions, false doctrines, and the decadent tendencies of the times, how can we expect the youth of either sex to combat these without knowing something of the true principles of biology and ethics ?

The young citizens of either sex will come to realize more than ever before the possibilities of human life, and attach a higher value to moral and biological considerations, including the dignity and vital responsibility of parenthood. In secondary as well as elementary schools for girls, there is great need for judicious teaching in regard to the physiological, civic, and moral aspects of the function of motherhood, in order to correct existing ignorance and misconception. In Continuation Schools for adolescents of both sexes, such teaching should form an essential part of the instruction provided, and is preferably initiated by a course of ' Nature Study,' so that the facts can be presented in an impersonal biological setting, and so pave the way to the realization of the responsibilities of parenthood.

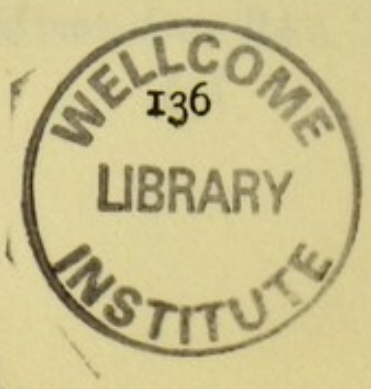
It has been stated by a recent woman writer in all seriousness, that during childhood proper, the influence of a boy's mother is paramount, and that if a woman cannot, during this period, instil into her boy's mind principles of reverence for girlhood, and a true understanding of the dignity of self-control and purity of life, she is not worthy to hold a son in her arms. This may be in great part true, but the practical fact remains that home teaching must be supplemented by further instruction after adolescence. The youth will be proud of his unsullied manhood, and the girl will glory in her womanhood when they both adequately realize that to them is committed the task of handing on the sacred torch of life as a pure and undefiled inheritance, which is the greatest gift that can be bestowed on successive generations.

Youth and Religion

In modern life the claims of religion are apt to be overlooked and neglected. Christianity, which is a religion based on love, appeals to young adolescents with special strength at a period of life which is characterized by the dawn and development of affections and emotions. One of the most hopeful signs of the times is the modern tendency of our best teachers to insist on religion being an integral part of daily life, instead of artificially separating secular from the religious life as has been too often done in the past. Physical well-being, hygiene, athletic pursuits, intellectual studies, and even proficiency in business, are now recognized and taught as being religious obligations. 'Whatever is worth doing, is worth doing well.' All such teaching will serve to

make religion not only more practical, but more attractive to adolescents. Mere 'cant,' incomprehensible dogma, and mystery must be replaced by a practical Christianity, in consonance with the real spirit and meaning of youth. Without religion, youth has been likened to a ship without a rudder, at the mercy of every new wave of influence. Patriotism, love of humanity, and the exercise of civic rights should be regarded as religious duties. One Sunday in the year is now set apart in England for preaching the importance of civic rights and duties, and is known as 'Citizen Sunday.'

It is noteworthy that our most earnest and intelligent social workers have found, as a matter of simple practical experience, that personal religion is the most powerful factor in the solution of the various moral problems which confront adolescents of both sexes. Christianity stands forth as the greatest regenerative power the world has ever known.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APPENDICES

CONSISTING OF REFERENCES TO ILLUSTRATE THE PRECEDING CHAPTERS.

IN the following appendices an attempt has been made to furnish the serious student with such information and direction as shall lead to specialized study and practical service. The Editor will count it a favour if readers will inform him of all sins of omission and commission. Readers are advised to consult the appendices appearing in the preceding volumes of these National Health Manuals, *Infancy*, *Childhood*, and *School Life*, for many of the works there referred to deal with the problems of youth.

The bibliographies here presented are, of course, not to be taken as in any way complete. They are however, representative, and will serve to direct to a fuller study of the subjects to which they relate.

APPENDIX I

To illustrate Chapter I

ALL serious investigation of the problems of youth should commence with a thorough study of President Stanley Hall's great classic *Adolescence, its Psychology and its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education.* In two

volumes. London: D. Appleton & Co. 1905. 31*s.* 6*d.* net; and his later work *Educational Problems.* New York and London. 1911. 31*s.* 6*d.* net. Consult also Dr. Stanley Hall's smaller volume *Youth, its Education, Regimen and Hygiene.* London and New York: D. Appleton & Co. 1907. 6*s.* net.

References to recent literature on youth and the problems of Adolescence will be found in the following:

The Child. London: John Bale, Sons, and Danielsson, Ltd., Oxford House, 83–91 Great Titchfield Street, Oxford Street, London W. Monthly. Annual subscription, £1 1*s.*

The Pedagogical Seminary. Worcester, Mass., U.S.A. Quarterly Annual subscription, $5.

See also list of journals given in *School Life* volume of these manuals.

'The Child' and 'Education' sections of *The Year Book of Social Progress for* 1912 (London: Thomas Nelson & Sons. 1912. 2*s.* net.), contain much up-to-date information and bibliographies.

The following works will be of service for study and reference.

ADDAMS, J.: *The Spirit of Youth and the City Streets.* New York: The Macmillan Co. 1909.

ANDREWS, C. B.: *An Introduction to the Study of Adolescent Education.* London: Rebman, Ltd. 1912.

ENGEL, S.: *The Elements of Child Protection.* London: George Allen & Co., Ltd. 1912. 15*s.* net.

FINDLAY, J. J.: *The School.* London: Williams & Norgate. 1911. 1s. net. (Useful bibliography.)
GARNETT, W. H. S.: *Children and the Law.* London: John Murray. 1911. 2s. 6d. net.
HOLMES, A.: *The Conservation of the Child.* Philadelphia and London: J. B. Lippincott Co. 1912. 4s. 6d. net.
HOLMES, E.: *What is and what might be.* London: Constable. 4s. 6d. net.
MACDONALD, G.: *The Child's Inheritance.* London: Smith Elder & Co. 1910. 12s. 6d. net.
SLAUGHTER, J. W.: *The Adolescent.* London: Swan Sonnenschein & Co. 1911. 2s. 6d.
SPILLER, G.: *The Training of the Child. A Parent's Manual.* London: T. C. and E. C. Jack. 1912. 6d. net.
TANNER, A. E.: *The Child. His Thinking, Feeling and Doing.* Chicago: Rand, McNally & Co. 1904. (Bibliographies.)

APPENDIX II

To illustrate Chapter II

DATA regarding growth and development in youth can be found in Dr. Stanley Hall's monumental work on *Adolescence,* Vol. I. The chapter on 'Stages of Growth' in Dr. J. J. Findlay's little book on *The School: An Introduction to the Study of Education.* London: Williams and Norgate. 1911. 1s. net, will be found helpful. (Good bibliography.) Consult Bulletin 30 of the National Hundred on National Health, *A Report on National Vitality, its Wastes and*

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Conservation, by Prof. Irving Fisher. (Washington: Government Printing Office. 1909.)

The publications of the following Societies should be consulted:

National League of Physical Education and Improvement, 4 Tavistock Square, W.C.
National Health Society, 53 Berners Street, W.
National Food Reform Association, 178–81 Stephen's House, Victoria Embankment, S.W.
Mothers' Union, Church House, Westminster, S.W.

See also:

BARON, B.: *The Growing Generation.* London: Student Christian Movement, 93 Chancery Lane, W.C. 1*s.* net. (Bibliography.)

CRICHTON-BROWNE, Sir J.: *Growth Somatic and Cerebral.* The Child, Vol. II., No. 1. October, 1911. London: John Bale, Sons, & Danielsson, Ltd., 83–91 Great Titchfield Street, Oxford Street, W. Price 2*s.* a number.

GILFORD, H.: *The Disorders of Post-Natal Growth and Development.* London: Adlard & Son, Bartholomew Press. 1911.

MCKENZIE, R. TAIT: *Exercise in Education and Medicine.* Philadelphia and London: W. B. Saunders Co. 1909.

WELPTON, W. P.: *Principles and Methods of Physical Education and Hygiene.* London: W. B. Clive, University Tutorial Press, Ltd. 1908. 4*s.* 6*d.*

WELPTON, W. P.: *Physical Education.* London: W. B. Clive, High Street, New Oxford Street, W.C. 1913.

APPENDIX III

To illustrate Chapter III

FOR a full discussion of the development and manifestation of mental and moral characteristics during adolescence, reference must be made to the standard works on Psychology. The following works may be consulted with advantage:

CLAPARÈDE, E.: *Experimental Pedagogy and The Psychology of the Child.* English edition. London: Edward Arnold. 1911.

CLOUSTON, Sir T. S.: *The Hygiene of Mind.* London: Methuen & Co. 1906. 7*s.* 6*d.*

DARROCH, A.: *The Place of Psychology in the Training of the Teacher.* London: Longmans, Green & Co. 1911.

HAYWARD, F. H.: *Educational Administration and Criticism.* London: Ralph, Holland & Co. 1912.

LOVEDAY, T. and GREEN J. A.: *An Introduction to Psychology.* Oxford: The Clarendon Press. 1912. 3*s.* 6*d.* net.

MYERS, C. S.: *An Introduction to Experiment at Psychology.* Cambridge: The University Press. 1911. 1*s.* net.

RUSK, R. R.: *Introduction to Experimental Education.* London: Longmans, Green & Co. 1912. 4*s.* 6*d.* net.

SCHULZE, R.: *Experimental Psychology and Pedagogy.* English edition. London: George Allen & Co., Ltd. 1912. 15*s.* net.

SULLY, J.: *The Teacher's Handbook of Psychology.* 5th edition. London: Longmans, Green & Co. 1909. 6*s.* net.

SWIFT, E. J.: *Youth and the Race. A Study in the Psychology of Adolescence.* New York: Charles Scribner & Sons. 1912. $1.05 net.

APPENDIX IV

To illustrate Chapter IV

THE standard textbooks on Personal Hygiene should be consulted. The following works will be useful for reference:

BARNARD, A. B.: *The Girl's Book about Herself.* London: Cassell & Co. 1912. 3*s.* 6*d.* net.

HUMPHREYS, M.: *Personal Hygiene for Girls.* London: Cassell & Co., Ltd. 1912. 1*s.* 6*d.*

SLATTERY, M.: *The Girl in Her Teens.* London: The Sunday School Union. 1910. 2*s.* net.

A full discussion of Sexual Education appears in *Studies in the Psychology of Sex. Vol. VI.: Sex in Relation to Society,* by Havelock Ellis. Philadelphia: F. A. Davis Co. 1911. $3.00 net; and in *Educational Problems,* by G. Stanley Hall. New York and London: D. Appleton & Co. 1911. 31*s.* 6*d.* net. See references in *School Life,* p. 151. Also the following:

HAMILL, H.: *The Truth we Owe to Youth.* London: C. W. Daniel. 1912. 3*s.*

LOWRY, E. B.: *Herself. Talks with Women Concerning Themselves.* Chicago: Forbes & Co. 1911. $1.

APPENDIX V

To illustrate Chapter V

ALEXANDER, J. L. (editor): *Boy Training: An Interpretation of the Principles that Underlie Symmetrical Boy Development.* New York: Association Press.

GESSELL, A. L: *The Normal Child and Primary Education.* Boston, New York, and London: Ginn & Co. 1912. 5*s.* net.

SOLANO, E. J.: *Physical Training: Senior and Junior Courses.* London: John Murray. 1913. 1*s.* net each.

SCHARLIEB, M., and SIBLY, F. A: *Youth and Sex.* London and Edinburgh: T. C. and E. C. Jack. 1913. 6*d.* net.

See also: *Essays on Duty and Discipline.* Cassell & Co., Ltd. 1911. And other Publications of the Duty and Discipline Movement.

APPENDIX VI

To illustrate Chapter VI

CONSULT *Our Children's Health at Home and at School,* being the Report of a Conference on Diet and Hygiene in Public, Secondary, and Private Schools. Edited by Charles E. Hecht, M.A. London: National Food Reform Association, 178 St. Stephen's House, Westminster. 1912.

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See also:

HUTCHISON, R.: *Food and the Principles of Dietetics.* London: Arnold. 1911. 16*s.*

JORDAN, W. H.: *The Principles of Human Nubulem.* New York: The Macmillan Company. 1912. 7*s.* 6*d.* net.

MURRAY, J. A.: *The Economy of Food.* London: Constable & Co. 1911.

WATSON, C.: *Food and Feeding in Health and Disease.* Edinburgh: Oliver & Boyd. 1910. 10*s.* 6*d.* net.

APPENDIX VII

To illustrate Chapter VII

USEFUL references to works dealing with Recreation will be found in the Bibliography at the end of Dr. A. I. Simey's article on 'Medical Supervision of Games, Sports and Exercises' in 'Medical Examination of Schools and Scholars,' edited by Dr. T. N. Kelynack. London: P. S. King & Son. 1910. 10*s.* 6*d.* net.

Dr. J. H. McCurdy, of the International Y.M.C.A. Training School, Springfield, Mass., U.S.A., has compiled a valuable *Bibliography of Physical Training.*

Consult also the Board of Education's *Syllabus of Physical Exercises for Public Elementary Schools.* London: Wyman & Sons. 1909. 9*d.* Also *Organized Play at Home and Abroad,* issued by the National League for Physical Education. London: 4 Tavistock Square, W. 1911.

Boy Scouts of America. The official handbook for boys of the Boy Scouts of America, 200 Fifth Avenue, New York. New York: Doubleday, Page & Co. 1911. This volume should be in the hands of every worker for boy welfare.

See article on *Physical Training for Girls from* 14 *to* 18 *Years of Age* in Transactions of Royal Sanitary Institute Conference, 1910.

As regards regulation of the occupations of youth, see representative bibliography in *School Life* (p. 144).

See also:

ADAMS, M.: *The Boy Scout's Companion: A Manual of Scout Craft.* London: The Religious Tract Society. 1912. 3*s.* 6*d.*

BADEN-POWELL, W.: *Sea Scouting and Seamanship for Boys.* Glasgow: James Brown & Son. 1912. 1*s.* net.

DUKES, C.: *Health at School Considered in its Mental, Moral, and Physical Aspects.* London: Rivingtons. 1905. 10*s.* 6*d.*

GIBB, S. J.: *The Boy and his Work.* London and Oxford: A. R. Mowbray & Co., Ltd. 1911. 1*s* 6*d.* net.

JOHNSON, G. E.: *Education by Plays and Games.* London and New York: Ginn & Co.

MCKENZIE, R. T.: *Exercise in Education and Medicine.* London and Philadelphia. N. B. Saunders & Co. 1909. 15*s.* net.

STAFFORD, F. H.: *How to go to Sea in the Merchant Service.* Glasgow: James Brown & Son. 1912.

WHITEHOUSE, J. H.: *Camping for Boys.* London: P. S. King & Son. 1911. 1*s.* net.

APPENDICES

APPENDIX VIII

To illustrate Chapter VIII

THE diseases and disorders of youth are dealt with fully in standard works. See also the following :

ARMSTRONG, H.G. and FORTESCUE-BRICKDALE, J. M. : *A Manual of Infectious Diseases Occurring in Schools.* Bristol : John Wright & Sons, Ltd. 1912.

CORNELL, W. S. : *Health and Medical Inspection of School Children.* Philadelphia : F. A. Davis Co. 1912. 12*s.* 6*d.* net.

FORDYCE, A. D. : *The Hygiene of Infancy and Childhood and the Underlying Factors of Disease.* Edinburgh : E. & S. Livingstone. 1910. 6*s.* net.

KIRMISSON, E. : *A Handbook of the Surgery of Children.* English edition. London : Henry Froude and Hodder & Stoughton. 1910. 20*s.* net.

TUBBY, A. H. : *Deformities including Diseases of the Bones and Joints.* 2 vols. London : Macmillan & Co. 1912. 45*s.* net.

APPENDIX IX

To accompany Chapter IX

CHAMBERLAIN, A. H. : *Standards in Education.* New York : American Book Co. 1908.

GRIGGS, E. H. : *Moral Education.* 5th edition. New York : B. W. Huebsch. 1911. $1·60 net.

HENDERSON, CHARLES R. *Education with Reference to Sex.* University of Chicago Press. $1·50.

HOLLISTER, H. A.: *High School Administration.* Boston, U.S.A.: D. C. Heath & Co. 4*s.*

LITTLETON, E.: *Training of the Young in Laws of Sex.* London: Longmans, Green & Co.

MANGOLD, G. B.: *Child Problems.* New York: Macmillan Co. 1910. 5*s.* 6*d.* net. (Bibliography.)

PERRY, C. A.: *Wider Use of the School Plant.* New York: Charities Publication Committee. 1910. $1·25.

SADLER, M. E.: *Continuation Schools in England and Elsewhere.* Manchester: University Press. 8*s.* 6*d.*

APPENDIX X

To illustrate Chapter X

REFERENCE to works dealing with Alcoholism in relation to Childhood and Youth, will be found in the volume on *Childhood*, p. 140. See also:

FOERSTER, F. W.: *The Art of Living.* English edition. London: J. M. Dent & Sons, Ltd. 1910. 2*s.* 6*d.* net.

HOAG, E. B.: *Health Studies: Applied Physiology and Hygiene.* London: W. C. Neath & Co. 1910.

LAMOREAUX, A. A.: *The Unfolding Life: A Study of Development with Reference to Religious Training.* London: H. R. Allenson, Ltd. 2*s.* 6*d.* net.

LODGE, O.: *Parent and Child: a Treatise on the Moral and Religious Education of Children.* New York and London: Funk & Wagnall's Co. 1910. 2*s.* net.

MAGNUS, P.: *Educational Aims and Efforts.* London: Longmans, Green & Co. 1910. 7*s.* 6*d.* net.

MARK, T.: *The Unfolding of Personality as the Chief Aim in Education.* London: T. Fisher Unwin. 1910. 2*s.* net.

MUMFORD, E. E. R.: *The Dawn of Character.* London: Longmans, Green & Co. 1910. 3*s.* 6*d.*

SAINSBURY, H.: *Drugs and the Drug Habit.* London: Methuen & Co. 1909. 7*s.* 6*d.* net.

SHARP, J. A.: *Social Aspects of the Drink Problem.* London: Kelly. 1910. 1*s.* net.

See also *Proceedings of The Conference on the Teaching of Hygienic and Temperance in the Universities and Schools of the British Empire.* London: John Bale, Sons & Danielsson, Ltd. 1907.

APPENDIX XI

To illustrate Chapter XI

REFERENCES to some of the more important books dealing with Ethics in early life are given in the volume on *Childhood,* p. 148.

Many suggestive and helpful articles will be found in *The Nation's Morals.* London: Cassell & Co., Ltd. 1910.

See also *New Tracts for the Times,* promoted by The National Council of Public Morals, Holborn Hall, London, W.C.

See also :

BONNER, C. : *The Christ, The Church, and The Child.* London : James Clarke & Co. 1911.

BRECKINRIDGE, S. P. and ABBOTT, E. : *The Delinquent Child and the Home.* New York : Charities Public Alms Committee. 1912. $2.

CABOT, E. L. : *Character Training : A Suggestive Series of Lessons in Ethics.* London : George G. Harrap & Co. 1912. 3*s.* 6*d.* net.

CROSS, F. J. : *Character and Empire Building.* London : Cassell & Co. 1911.

FORBUSH, W. B. : *Church Work with Boys.* New York : The Pilgrim Press. 1910. (Bibliography.)

HOBEN, A. : *The Minister and the Boy : A Handbook for Churchmen engaged in Boys' Work.* Chicago : The University Press. 1912. $1.

KIRKPATRICK, E. A. : *The Individual in the Making.* Boston, New York, and Chicago : Houghton Mifflin Company. 1911. (Bibliography.)

M'NEILL, W. : *The Child in the Church.* London : Oliphant, Anderson & Ferrier. 1909.

STEWART, A. H. : *American Bad Boys in the Making.* New York : The Bookery Publishing Co. 1912. $1·50 net.

APPENDIX XII

To illustrate Chapter XII

IN addition to the works given in Appendix XII. of *School Life* (p. 157) the following may be consulted with advantage :

APPENDICES

BADEN-POWELL, AGNES, and LT.-GEN. SIR ROBERT: *The Handbook for Girl Guides.* London: Thomas Nelson & Sons. 1912. 1*s.* net.

BRAY, R. A.: *Boy Labour and Apprenticeship.* London: A. Constable & Co. 1911. 5*s.* net.

BRECKINRIDGE, S. P. and ABBOTT, E.: *The Delinquent Child and the Home.* New York: The Russell Sage Foundation Publications. 1912. $2·00.

CLOPPER, E. N.: *Child Labour in City Streets.* New York. The Macmillan Company. 1912. 5*s.* 6*d.* net. (Bibliography.)

DYER, H.: *Education and National Life.* London: Blackie. 1912. 1*s.* net.

FOWLER, N. C.: *The Boy: How to Help Him Succeed.* New York: Moffat, Yard & Co. 1912. $1·25 net.

GIBB, S. J.: *The Boy and his Work.* London: A. R. Mowbray & Co., Ltd. 1911. 1*s.* 6*d.* (Bibliography.)

GREENWOOD, A.: *Juvenile Labour Exchanges and After Care.* London: P. S. King & Son. 1911. 1*s.* net. (Good Bibliography.)

KERSCHENSTEINER, G.: *Education for Citizenship: London.* New York: Rand, McNally & Co. 1911.

MARK, T.: *For Childhood and Youth: Ideals of the Modern Sunday School.* London: J. Clarke & Co. 1913. 1*s.* 6*d.* net.

PEPLER, W.: *The Care Committee, the Child, and the Parent.* London: Constable & Co. 1912. 2*s.* 6*d.* net.

SPARKES, L. J.: *Civics*. London: Headley Brothers. 1912. 1s.

SPENCE, F. H.: *The Teaching of Civics in Public Schools*. Clifton, Bristol: J. Baker & Son. 1911. 1s.

TRAVIS, T.: *The Young Malefactor: A Study in Juvenile Delinquency*. New York: Thomas Y. Crowell Company. 1912. $1·50 net.

VEDITZ, C. W. A.: *Child Labour Legislation in Europe*. Washington: The Government Printing-Office. 1910.

WEEKS, R. M.: *The People's School: A Study in Vocational Training*. Boston New York, and Chicago: Houghton Mifflin Company. 1912. (Bibliography.)

WHITEHOUSE, J. H. (editor): *Problems of Boy Life*. London: P. S. King & Son. 1912. 10s. 6*d*. net.

See also proceedings in Report of National Conference on *The Prevention of Destitution*. London: P. S. King & Son. 1912; *The Nation's Morals*. Being Proceedings of the Public Morals Conference, London, July 14–15, 1910. London: Cassell & Co., Ltd.; and *Problems in Eugenics*—containing Papers Communicated to First Eugenics Congress, July 24–30, 1912. London: The Eugenics Education Society, Kingsway House, Kingsway, W.C. 1912. 8*s*. 6*d*. net.

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