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MODERN MEDICAL METHODS

By

HAYDN BROWN

Author of "Vitality and Diet"

THIS book helps readers of both sexes to understand broad principles of treating disease and disorder. It is a guide for those who desire good health and long life. For medical men it constitutes a short therapeutical survey. It will assist those who are interested in the claims of miracle workers and lay healers generally, to distinguish between what is by way of being scientific, and what is not.

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MODERN MEDICAL METHODS

BY

HAYDN BROWN

FELLOW OF THE ROYAL SOCIETY OF MEDICINE AND
OF THE ROYAL INSTITUTE OF PUBLIC HEALTH
AUTHOR OF "ADVANCED SUGGESTION" "VITALITY AND DIET"
AND MANY HEALTH MANUALS

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P R E F A C E

AN inherited impulse towards research work has brought very much hard labour, but heartfelt thanks are given, in that many rewards of emotional satisfaction for accomplishments have made the years of close application most healthy and happy ones.

Nor does an independent research worker find his paths free from all poisoned arrows of bitterly disappointed enemies. He is subject to severe hindrances which certain organisations present when they ought all the time to offer every encouragement. Yet even a rigorous isolation is not always weakening to the death.

In the following pages I make my appeal to the great general public—which of course includes medical men. The material for study is presented to readers who have common sense, as well as to those who have particular capabilities and whose minds are scientific by instinct.

HAYDN BROWN.

30 CAVENDISH SQUARE,
LONDON, W.1.

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MODERN MEDICAL METHODS

CHAPTER I

A METAMORPHOSIS

IT is amazing as the decades follow one another—one might well say the centuries, if we study history—how easy it is to evolve from the ridiculous to the ridiculous again, sublimity showing itself here and there, freely promising what everybody hopes for and sooner or later turns towards—namely, the ideal, the perfect, the vast prospect and purpose of a Great Almighty—as surely as a flower leans towards light, or a fox in the field faces the sun by force of sheer instinctive preferential inclination. It is the way of the world to find material for evolutionary advancement out of oscillatory process—the more perfect always being aimed at.

We read books of old telling us of witch doctors who existed even in this “dear old country” of ours, and we learn of suffering but seemingly sensible men—actually white men—even these days, occasionally visiting dusky miracle workers in the bazaars at the opposite end of the earth, showing that emotions and beliefs die hard, especially when they have been

founded upon predicament and plight because of a defective or insufficient presentation of what are really true, valuable, and up-to-date facts. Though it is also a truism that the latter may be exceedingly difficult to find.

Which implies a paradox. Why are some supposedly true scientists often silly? Is it the madness of genius besetting them? It must be. Or it may be that the vanity begotten of pride of performance makes certain people egoistic, exclusive, reclusive, and bad natured.

Anyway, I will ask readers if they can account for the Lourdes cures and all the lesser kinds of miracle workings that still fascinate and even benefit some of the most educated people of the present day. His or her difficulties in searching for a reasonable answer would be painful to look upon, but for the fact that they would not be waited on; they would be sensed quickly, and as quickly moved away from, as something awkward, tiresome, impossible to account for, and therefore quite useless to entertain. This way converts are kept, who will not allow themselves to question—they are too rapt and astonished in evidences of truth as to final issues, seen in obviously favourable results, to be patient enough to make any further questioning—be the results scarce, even only one in a thousand. The rarer the better to be treasured.

Thus there still arise men to-day who can apparently work miracles in the Greatest City in the World—men who have had no orthodox medical training whatsoever—men who can make the lame walk, the paralysed dance, and the senseless quite

capable again. What is the explanation of it? There must be one. Nothing is truer than Herbert Spencer's epigram, "There is a soul of truth in things erroneous."

You cannot have a change from centuries previous, when men wore skins for day as well as evening, and women played at plaiting grass, right along to this day when silk stockings are so beautifully made that they appear as sun-kissing and shadowy films of wonderfully produced fairy fabric, without asking whence do we derive such apparent ignorance regarding the first principles of self-preservation—to wit, of all the still more wonderful structure that is underneath all this soft raiment—so strong, and yet so delicate that a pin's prick may cause the end of it in a few hours.

It is a fact that there are many people living to-day in dire distress from disease, who for years have not been able to find either relief or cure by any means which advanced science could hold out, but who can be cured—as it is demonstrated every week of the years—by miraculous intervention, only provided that some sort of a mundane healer shall be found who has the *nous* and courage to come forth and say, "Take up thy bed and walk." Which is enough to make the "Radium People" wild! A pallid, poetic, and acetic-faced youth, even in Wales, may easily be found to unlock the fastenings of fate's gates and allow release. You need only read the newspapers in order to find some such wonder.

Then take up the latest issue of any leading medical journal, and you will see accounts of an earnest scientist struggling with something new, in order to

impress his confrères, in the hope that he may succeed in making a big name—perhaps with a new gland extract. All very praiseworthy work, you will agree, but eventually cutting amazingly little ice—perhaps only succeeding again in reaching the ridiculous, after much proclaiming, and then quietly petering out.

And, mark you, some of these great discoveries by great scientists in the past have a very horrid habit of mocking and returning to hurt perhaps “after many days.” A man may show that he can shoot through the whole earth with a ray that he feels certain must therefore be able to cure something, if he could but find that something to cure, yet the same ray has been known many times to turn cruelly back again upon him, either to maim him for life or to finish him in a very short space of time.

Playing with worse than fire. Yet I know that men must be bold. “Those who never make mistakes will never make anything.” Nor should one be so rash as to argue that only the palpable can be risky. Even speculative and eminent men have been known to reach out courageously into space, declaring they have actually clutched ectoplasm—a material, they say, even the mere belief in which has been known to cause a tragedy—only to succeed in making onlookers and those who are very kindly credulous wonder still more, sometimes to their becoming exceedingly unhappy that there could be such a dreadful amount of mystery in life and death. Asylum men can tell a sorrowful story about beliefs in spirits and the ending that it brings to so many mortals—worse than common earthly woe.

As to beyond, there are even men now declaring that they can cure diseases by calling in the aid of spirit doctors—healers of the departed, who make claims to being far more eminent than any present living authorities could ever hope to be.

Such is progress. So are we still able to go into our gardens to gather fruit, to approach the best we see on the tree, rosy and ripe, only waiting for the wonderful hands of men to pick, yet even then possibly concealing puissant poisonous insect hidden in hollow behind that had first known well the richness of the nectar within.

But we cannot afford to be biting in our criticisms. If we intend to be constructive we must be fair in whatever form of destruction we set out to accomplish. We can hardly construct without this care. Those venturesome pioneers who are far too much inclined to speculate, in all the thrillings of life for which an appreciative multitude is ever ready to give lavish praise and even a high price, deserve to be kindly handled. They work hard. Most of them have some unquestionable virtues. Not every book-maker should be called a swindling cur; for does not useful worldly history record some very noble examples of men wealthy by their wits, subscribing to the very perfections of good works of our religious institutions? The soul can feel its own peculiar swings.

Most men are magnificent. Only the diseased are really ugly. No woman can ever be wholly ugly to a man: desert island life has proved this. I once knew a burglar, a parson, and a model “gentleman’s wife” to belong to the same honest father and mother.

Even the burglar I found to be a really kind man when there was illness at home. I took a doctor's fee from him, without either compunction or sense of unsuitability. He was then well-to-do.

I never knew a really sane medical man but who was full of the rich blood of human kindness. Some men are obliged to be virtuous and kind ; but most men like to be ; they enjoy the sensation ; many men begin by believing they ought to be, only to realise that it is much nicer to be ; a few find that they cannot be anything else.

A general medical practitioner is the finest specimen of full manhood that is to be found on the face of the earth. Chiefly because he is generally ministering as a friend indeed. Not that specialists and consultants must therefore take a back seat, with all their opportunities for objectionable assumption as far as their knowledge and practices go : they also have their white and black sheep—but mostly white ; but then so have parsons and other kinds of people.

The best of general practitioners are the best of scientists—having regard for the all-embracing comprehensiveness of their undertakings—but they are also the most finished of humanists, usually by nature but also by insight and training. Self-sacrificing and studious to the last degree towards the best interests of their patients, if ever there were men who could surpass archbishops in virtues they are to be found amongst the family doctors. Who shall dispute this when literally hundreds are to be found who will and do risk their own lives many times a year in their services towards even the very poorest in the land. Nobleness then obliges, when mere masculinity

makes it imperative that *something is there to be saved at all costs*. Doctors, also, can be sporting.

The best to be said about specialists is that they have been able, sometimes by reason of inherited capabilities and later at least by force of devoted application, to reach pinnacles which very few ordinary people in the world are either sufficiently aware of or thankful enough for.

Medical men are vastly more valuable than is commonly believed by the laity. Of this I have long been absolutely convinced. Not that I have been constrained to come to this conclusion by force of personal anxiety or belonging : I believe it to be the case as a detached philosopher for the nonce—at all events, sufficiently so to be able to recognise relativities. Through a large experience I feel able to evaluate virtues sufficiently well in all sorts and conditions of men, having fortunately studied some philosophy from school days up—and more especially so when it became obvious that the greater psychology held in the hollow of its hand the fate of all the lesser 'ologies, and that it should therefore receive the chief consideration.

Thus have I learnt not to bother too particularly about what any one might think of my plans of campaign or my outspoken criticisms. I have found that a sense of freedom helps greatly to afford a wide eye for estimating the qualities and quantities in others. Consequently I strongly recommend this sort of sense of freedom to others. It is at least healthy. No member of the laity can possibly be fully aware of the saving of life and suffering that goes on daily, owing to the highly trained judgment

and the experienced skill of medical men in the mass. Exceptions prove the rule. To most of the laity the practice of medicine might seem easy work !

A writer before the public had better be fair or there is likely to come some trouble tumbling about his head. But I learnt to be fair even before ever I put pen to paper for the press. As a boy in the football field and in the boxing ring, I learnt that fairness was the first requisite for everybody who should think of entering into any form of scientific pursuit—indeed, the latter adjective is synonymous with fairness to the point of scrupulousness, even to absolute accuracy as far as possible.

I believe that I am also fairly well able to judge what standard of fairness various kinds of people are likely to adopt, and that I can refer to human beings without appearing to be insufferably egoistic, for I am as mindful of what I do not know as I am conscious of the East being behind me when I am facing the West.

Not every page of this book will be wholly acceptable to all readers, I know ; but it is good at least for some people to hear arguments from various angles. That way interest and profit are surely to be found. There could hardly be studied a more miserable man on earth than one who is everlastingly and unfailingly praised. He is almost as unfortunate as one who feels quite alone in the world. I am well aware that I shall incur some hostile criticisms about this book, but I feel equally assured that some of the truths in it will be appreciated. Anyway, here it is. I have at least a sporting chance of being able to hold my

own, whatever reception the great general public may have to give me, and however much my dearest enemies may wish to hang, draw, and quarter me.

Something by way of advancement must have been made in medicine in the last half-century, or we could hardly have now the lowest death-rate ever known amongst the highest civilised countries of the world. Dissecting analysis shows our favourable bill of health to be unique. London itself is the healthiest of all the large towns of the world.

Then why worry? says the easy-going reader. My answer must be that we shall not worry; but nobody ought to complain regarding our efforts towards finding at least the reasons why we are the healthiest people on earth.

But a better answer still is that scientists can never cease advancing, especially while an amount of suffering goes on which we may reasonably hope will be greatly lessened in quite the near future. Hence the writing of this book.

Two great influences have been at work in the last decade to bring about the lowest death-rate in history now reached. The first is the lay press, which has so shrewdly sensed the advantages of educating the public through its issues, and the second is Panel Practice, which has enabled medical men to find early signs and symptoms of disease, so to deal with such as to prevent the more serious stages from developing. Or, if any one would like it better, I would point out that this form of contract practice has led to patients seeking the aid of medical men sooner than

they would have done if ordinary fees had been required.

Not that I am here to shower unstinted praise upon a form of practice that anyway deserves a great deal, without admitting that there are faults—sometimes great ones—to be found in it. The security which a definite appointment to the position of panel doctor affords is in itself enough at times to create its own particular feeling of independence that may cause carelessness in practice. Hence some amount of disrepute.

The very popularity gained by a medical man, through scientific knowledge helped by a plenteous supply of the human virtues, may be his undoing sooner or later when an extensive patronage forces him to be overworked. The very best of men are thus compelled to make mistakes by force of a well-earned increase. All men “of the world” know this as being likely.

A balance is, of course, usually arrived at, in which the doctor realises the position he is in. If only by small happenings which teach him the possibilities of great success, he learns that it is sometimes difficult to keep his work going when just a little more strain might make him the means of illustrating “the last straw” of the adage.

But what a metamorphosis! From the days of early miracles to the days of yet more miracles, through hundreds of years, the extremes showing greater distances between them. Though we have a skill to-day that beats the records of former years hollow, yet we have men in our midst who are asking the multitude not to believe that their works are akin

to the greatest miracle worker of all Biblical time, though they may appear to the onlooker to be just the same sort. Thus are appearances bewildering in our comparative study, unless we learn to think very easily; this is the great salutary secret—not how difficult we may make and find everything, but how remarkably easy, having regard for the wealth of advantages lavishly vouchsafed to every living creature.

The question is sure to arise in some quarters, Are miracles all alike in essence? If not, what is the difference between them? There they are, these healings by the laying on of hands, common hands of the mere man who is obliged to explain that he does not cure—he merely acts as an agent of the greatest physician that ever could be.

The metamorphosis is from the ridiculous of the primitive man of aboriginal customs, who as often as not administered remedies which had no power for good whatever, to the sublime times of extraordinarily skilful surgery and low death-rates—and yet more miracle working on quite an extensive scale carried out in most of the great countries of the world while the very highest of educated classes go on wondering and appreciating and praising. The truth is that there never were miracles. All were apparently so. The duty for us to-day is to find the realities, not to waste time on wondering or speculating or translating ancient cryptics. We should all come out of the mood for the miraculous and be sensible.

We shall endeavour to find out in the following pages better where we are in this year of grace when amazing paradox is the puzzle; to find set purposes

where confusion reigns, is the great quest of those suffering from various degrees of anxiety neurosis.

We shall see appearing in various parts of the following pages how some medical men are prone to develop an obsession, which is definitely declarable, in that they derive through enthusiasm a tendency to look searchingly and eagerly for the severities and major abnormalities. In their praiseworthy desire to show their capability for conquering such, far too many are entirely led away from the necessity for examining constantly how they may advise towards either lessening difficulties or preventing abnormalities from occurring at all: the greater the difficulty the more it is liked and looked for, when consciousness of power to conquer has stimulated the efforts over years of training and habit.

CHAPTER II

SOME OBJECT LESSONS

MY object throughout the pages of this book is to help the laity and the medical profession towards a better understanding as regards the relationship that exists between the two, and as regards a better relationship still that ought to exist.

Why any reference to the laity? Because it has been mainly through lay journals that recent agitations in medical ranks for the safeguarding of the public health have sprung.

My contention is that what has been done by the laity ought to have been rendered quite unnecessary by the economic activities of medical men.

But what is the Ministry of Health if not a body created by the laity, in that it is through the voting of plain individuals of most classes that ministers take their seats of office. That is to say, ministers are there to do the bidding of the people, more or less. And very often the latter do bid, while it had rather be that they should themselves be bidden.

It is the latter statement that I would emphasise with all the power I possess. As regards medical safeguarding of the public by wise ruling from the

headquarters of the Ministry of Health, in the past it has been, and, indeed, in the present it actually is, the common usage that the Ministry responds to what the public agitates for, be it for Food Reform, Better Housing, or Better Conditions for the Insane.

This spells disorder. It is a plain example of the cart pushing the horse.

Why have not medical men recognised this invert process long ago ?

The answer to this question is to be found within the plain and now universally broadcasted conclusion, which has only during the past two years been arrived at, and as naively expressed, in the words, "What is wanted is a more concentrated study of preventive medicine."

Why has the profession been so slow in finding and adopting this shibboleth ? For even the general public is bound to note that if medical science has been worth all that has been claimed for it in the past century, surely there should have been produced a stronger leadership to have converted this particular conclusion into a set declaration of resolve at least one or two decades ago.

The literature that exists shows clearly that the preventive idea was not entirely neglected by some of the more advanced thinkers even half a century ago—when fresh air and exercise and good food were recommended as the best means of treating consumption. Yet it has not to this very day been finally agreed upon what has been, and what is now, the value of special sanatoria for this disease ! Nor can any medical body agree that there are other methods that can clearly be proved to be more valuable in

conquering the disease than what science was able to demonstrate fifty years ago. Consumption is reduced in case number to-day, not through the planned and directly purposive efforts of medical men, but indirectly and even by the surprising chance of common-sense effect. This is proved by the fact that no authority has been able to declare clearly and finally why consumption is less prevalent to-day. Healthier living, some may say ; but nine-tenths of the energies of medical men are still devoted towards finding a cure by medicines particularly of an injection order.

Medical men have not even arrived at a final decision regarding a single claimed specific, or a vaunted "new cure," such as the Spahlinger injection. Why ?

The profession is not organised for arriving at conclusions. It is practically powerless as regards this particular essential for the best advancements. It possesses no concreteness, no liaison communicability between its various departments, no ready means of settling disputes of any kind.

As surely as great hospitals have been founded in the past, so surely have there been schools of learning and teachers who have gathered together a sense for timid approach, cautious collaboration, and far too confined interests ; in which a natural idea of loyalty has created pitiful self-sufficiency. Multiply this evolution into many institutional bodies and you are bound to find their creating unfavourably jealous atmospheres amongst them, to result in inco-ordinate weakness of the whole in which even sinister leanings are likely to develop—indeed, they are inevitable.

What chance has science amongst such shaken-

together conglomerates ? Science only requires—and must secure, to get the best out—sweetly reasonable and ready communication between her several departments and areas of research work, large and small.

In short, when medical men in the mass have not felt able to move, then the great general public through the lay journals has been obliged to move. To make real progress the medical profession has not felt able to move. A journal of high position, on October 3, 1924, had in print the words, “medical men have had their hands tied,” in referring to food-poisoning by chemicals. My contention is that they have been “trussed” to the point of utter distrust even in themselves, through lack of harmonious relationship with one another in the single object which should be their religion, namely, the pursuit of scientific conclusion.

Let us examine this quoted explanation, which implies an ignominious bondage such as no medical men with any respect for themselves should complacently sit down under. How tied ? The idea might be that they have been prevented from acting in the public interests. I cannot accept this for a moment as it may be understood by the laity. I cannot even believe that the laity will imagine that doctors in a body have been prevented from doing as they liked regarding the public health—at any time—so long as reasonable representations were made as to requirements and real necessities.

We must not forget that it is science which compels : it is true knowledge which commands. Therefore it is the presentation of true knowledge that has failed ;

and it has failed because the body of medical men has not been concrete enough to find final expression strong enough to bring solid conviction.

Only when the laity cries aloud does the medical body set to work to examine itself to see if there is enough power in its component parts to be able to guide. But the medical profession has for some time seen a good deal of this weakness and powerlessness on its part. It saw it some few years ago when the Federation of Medical and Allied Societies was founded for the splendid purpose of putting itself in a position to act strongly and with combined eloquence whenever an authoritative pronouncement from the profession was wanted.

But this federation was not of the right kind, as has been clearly shown since it was formed. It merely imagined that it must have vast power, through merely a running together of the globules, like quicksilver—so easy to accomplish, yet in the bulk so far away from being either controllable or applicable to any kind of requirement whatsoever—when hardly glass containers can keep it in useful confinement, the very spillings over giving it away even though a loud speaker in the form of a special journal were put forward as evidence of energy and power.

You may federate as you may; until there is harmony and co-operation between the various sources of scientific energy in the areas of research work there will not be truly great advancements made in medical science. Progress will continue to be made, apart from all this confusion—but, of course, under undeserved difficulties.

The last two sentences are the essential derivative

of the promising offerings which are to be found between cover and cover of this book. Truth is the principle around which all other illuminations must constellate. Science will win all the time, and muddle of conditioning can only temporarily hinder its progress: Science will edge into position even as economics must allow it premier position out of the very separating process of centrifugal and centripetal forces the order of which ever commands a centre.

It is Science which now ordains that better organisation in the medical profession is urgently desirable.

.

WHEN DOCTORS DIFFER

It must not be imagined for a moment that in making criticisms I could ever feel disloyal towards individuals or the mass of members of a great profession. Indeed, I know that many medical men are in entire agreement with what I have already written, and what I now write, on the subject of medical organisation. It is characteristic of medical men that they are hard-working, devoted, and sincere servants of the public. I confirm that the best of medical scientists are general practitioners who are large-hearted, broad-minded, extensively experienced, and untiring in their efforts. Many specialists and consultants are very great men, but some are narrowed down to the point of being spoilt, through the sheer necessity they have found for urgently and perpetually concentrating.

All the best of medical men will be glad of any reforms which might have the effect of advancing

medical science. Therefore I feel that my coast is bound to be clear.

There are at least three great object lessons now before the public and the profession, about which it would seem to be in the common interests that there should be very full, free, and fearless discussion, in the belief that when administrative systems are severely criticised the only safe and satisfactory tribunal to appeal to for arbitration is the multitude of sensible readers of books and of great public-serving journals.

It is not good to seek the opinions of experts alone, in science ; especially when delicately human application of principles is involved ; nor is it good to search for sound judgment from a laity that is but poorly acquainted with the salient facts ; but it must be good to allow fair-minded representatives of all sides to have the most informative data spread before them so that wise and salutary conclusions may be arrived at. Particularly must this be the case when conditions relating to suffering and death compel very grave consideration as to their true nature and as to the best means that may be adopted towards their amelioration.

The three object lessons are : the attitudes of personnel regarding the National Health Insurance ; Recent Experiments in the Treatment of the Insane ; and movements towards procuring a Safer Food Supply.

That these three demand very earnest study is shown by the fact that concerning all three of them, Royal Commissions are now sitting. As to the third, I would not hesitate to observe that it should study food constituent values as inseparable from

retail cost ; this would result in arriving at conclusions which would probably produce the greatest benefits of all.

But we may well ask, Why these Royal Commissions ? Why are they all at once to be found so necessary over differences of opinion where medical men are chiefly concerned ?

I propose to answer these questions by studying each of the object lessons named. The truth about the National Insurance Act is that it has been good and bad. About half the medical profession is in favour of it and half not. The opinion is strongly held that it has served a favourable purpose in contributing to the present low death-rate ; and it has acted thus, according to many who are competent to judge, chiefly because panel doctors have been consulted in the early stages of disease by patients who would not have paid ordinary doctors' fees until the more severe stages ; thus the Act really has been a great preventive system—and unexpectedly so to those who originated it.

The Act has been unfavourable chiefly because it has led to a certain amount of slipshod medical work, and because panel doctors have so often found little occasion for making any deeper study of disease such as an independent medical man often finds necessary.

It therefore comes to be a moot question, Has the good of the Act been greater than the bad ? In my opinion it has. Which reckoning surely at least demands of us serious consideration as to the means whereby the faulty conditioning may in future be improved, so that a still more favourable death-rate shall be reached.

But where in this lies the particular object lesson ? It is in the fact that no Royal Commission should have been needed. Medical men should have been able to find out for themselves what was wanted in the public interests. But, amid conflicts, main requirements are often overlooked in the affairs of men ; and conflicts are the symptoms of chronic illness-at-ease from which far too many medical men have been suffering during past decades. The fact is, that the practice of medicine is a very personal one, even more than that of the Church or of law ; the confidential, individual, intimate, and self-reliant character of the principles of applying medical recommendations, is apt to create an assiduous devotion that favours narrow conceptions ; and in so doing it will too often create qualities which tend to stultify prime scientific pursuit.

As regards the second object lesson, there have been made within the past seventeen months some most valuable and significant experiments. They are not unique, scientifically ; they are not new in nature ; but they have been conducted by most exalted and influential authorities upon a larger and more definite scale than has ever been attempted before. Indeed, they have been instituted as a result of former smaller object lessons which have been successful, and which pointed towards the still more favourable results likely to be found in a larger trial. They have been very strikingly successful.

Five hundred cases of early mental disorder were selected by administrators and doctors of the Edinburgh Royal Infirmary, and these were treated and specially studied in the wards of this great general

hospital between May 1923 and May 1924, in order to see what results could be obtained. Selection was made from eleven classes of mental disorder.

Of the four main conclusions arrived at as a result of the test, as reported by the chief medical officer conducting the experiments, I need only quote one :

“ The chief deduction to be made from this analysis is the great usefulness of a general hospital in treating slighter or undiagnosed cases of mental disorder ; of these, 64 per cent. could be treated successfully without transfer to a mental hospital.”

In a leading article on the subject the *British Medical Journal* (Sept. 27, 1924) says :

“ So important a development deserves a wide publicity, because the large number of cases admitted in a year indicates that it meets a very real need. . . . We believe also that the association of mental cases with a general hospital will tend to advance our knowledge.”

My point is that probably neither the above test nor the appointment of a Royal Commission would have been made had not a lay society stirred and stimulated the general public and encouraged medical action and reform.

But in my opinion the third object lesson is the most important of the three. Following on the campaign pursued by the *Daily Mail* and *John Bull* to compel the authorities to protect the public from poisoned food, these journals have recently accorded prominent positions to articles written by some of our most famous medical scientists on the subject of

food and cancer. Thus, again, it is the great general public that is appealed to through leading lay journals ; it is not the medical profession that is addressed through medical papers. In this manner the medical profession is compelled, therefore, when there ought never to have been any form of compulsion necessary. The material that Sir Arbuthnot Lane has contributed to *John Bull* should have been common knowledge to all medical men years ago.

All of which brings me to the explanation of my sub-title. The medical profession is now in the throes of bitter disputation on account of the obvious shortcomings of its organisation, and several prominent members of the profession, one after the other, have recently felt obliged to appeal to all and sundry, both of the laity and of the profession, for help towards a better state of affairs.

What is the matter with medical organisation ? In my opinion the lack of initiative and co-operative activity has its origin in the constitution and workings of the medical societies, which are so closely compartmental and so defective in their sifting and selecting system that the best of high scientific energies are not properly discovered, or helped, while the many members who have happened on favourable positions one way or another, in large institutions, are so satisfied that they cannot be bothered to consider anything outside their own particular circumscribed purviews.

Lay readers will note that as regards the three great object lessons there is no first or great action taken on the part of the medical profession as a whole. In each case it is the general public which has moved to compel the medical profession.

That something is seriously wrong with medical organisation has thus been very clearly proved, not in medical journals, but in lay. Both medical men and the best of the discriminating public are abundant witness to the fact that some of the most useful articles ever written on Food and Cancer have appeared in lay journals.

I am not going to claim for a moment that in these present lines I am offering perfect explanation for a state of affairs that is of the utmost importance to the country at large. I have humbly stated what is my belief, and I can safely leave further light to be thrown upon the matter by other medical authorities.

May I add my opinion, that, had it not been for faulty medical organisation, medical science would have advanced very much more rapidly than it has done in the past two decades: we should probably have long ago entirely solved the problems which cancer, tuberculosis, rickets, goitre, and half a dozen more diseases have presented—not forgetting lying-in septicæmia.

Nor can I make apology to any one for thus criticising, for I have presented the chief points of my contentions to certain medical authorities in high position for some years past and they have been totally ignored.

CHAPTER III

PREVENTIVE MEDICINE

SURGERY has in recent decades advanced greatly: medicine has not advanced to the same degree. In the former case, progress has been largely because of the lack of advancement in medicine (as seen in the tendency to operate surgically wherever disease is difficult to treat by medicinal means), but also because success depends upon manipulative skill which is exercised over a more exact and palpable set of abnormal conditions. Surgery is a more set-purposed therapy than medicine can contain. There is a visible anatomy of disease for surgeons to tackle, while employers of other means are confronted with hidden processes of disorder, and are obliged to make as fine judgments as possible from signs and symptoms indicating an infinitude of functional variations.

It follows that surgery must have reached very nearly the highest possible degree of perfection, according as manipulative skill has limitations governed by purposes-in-view and the judged character of material operated on, while medicine appears to be over an area that is boundless, even according to the possibilities innumerable of fresh diseases arising,

or of modifications of formerly familiar ones all the time.

What has been the cause of this great outcry from the mass of medical men, voiced by its leaders, now echoing throughout the halls of medical learning and broadcasted to the homes of the humblest, issuing as a common behest—the cry, that preventive medicine is the chief quest for scientific endeavour, now so clearly indicated and for ever more to be the greatest desideratum ?

And that there really is a great outcry, may well be exemplified by quotations from a leading authority, Sir William Milligan, M.D. In one of the most brilliant lectures ever delivered on this or any other scientific subject, he has declared :

“ The success and prosperity of a nation depend upon the health and general fitness of its citizens. In other words, health, physical and mental, is our greatest national asset. A people's health is a Nation's wealth. . . .

“ Modern civilisation has not been backward in promoting the interests of physical development and athleticism, not necessarily from a military point of view, but because it appreciated the value of the old adage, *mens sana in corpore sano*.

“ How far in this country, however, we have fallen short of attaining the ideal may be judged from the amount of physical inefficiency unrealised, or, at any rate, unrecognised until the outbreak of the Great War in 1914. . . .

“ We have to recognise and to admit that in this country there is an enormous amount of physical incapacity and minor ailment which, taken collectively, seriously prejudices our national efficiency and industrial supremacy. . . .

“Both the morbidity and mortality rates of the country leave much to be desired. No death-rate ought ever to be a fixed rate, and there is no morbidity rate which cannot be lowered, if only an intelligent appreciation and wide grasp of health problems were the first charge on the intellectual capacity of our rulers and city fathers. The economic loss to this country from sickness, invalidity, and want of physique, more especially amongst the industrial classes, reaches a figure at once so colossal and so staggering as should cause us to think long and hard, more especially when it is recognised in medical circles that at least 50 per cent. of existing illness is preventable. For England and Wales alone the economic loss from industrial invalidity has been calculated to exceed £150,000,000 per annum.

“According to the investigations of Lieut.-Col. Fremantle, $2\frac{1}{2}$ per cent. of our population are incapacitated at any given time by sickness and disablement, with a resulting loss to the Exchequer of £2,500,000 per annum, and to the national income of some £50,000,000 per annum. If to this we add the various costs included under the term ‘Treatment,’ namely, £100,000,000, we arrive at the stupendous figure of £150,000,000, which represents the amount of loss to England and Wales as the result of the ill-health of its wage-earning population. . . .

“The fact that the death-rate in the country has fallen very materially—in 1923 it was 10·3 per 1000—should not lull the national conscience into a state of serene security. . . .

“Important points to remember are that the physical fitness of man has not improved with the ages as might *a priori* have been expected, and that the mortality rate from degenerative diseases during the working span has materially increased, giving some colour to the adage ‘too old at forty.’ It is true that the expectation of life

has materially increased, but not the period of man's full physical vigour. . . .

"There is no other disease, apart from cancer (which unfortunately is increasing), which exacts such a heavy toll on national efficiency as does tuberculosis.

"The death-rate from cancer in this country is more than seven times what it was in 1838; it is claiming, roughly speaking, 10 per cent. of the population, and is attacking its victims at an earlier age than has ever been previously recorded. . . .

"Were we able to eliminate one single disease, *e.g.* tuberculosis, it has been calculated that the sum of £4,700,000 would be added to the Exchequer, and £94,000,000 to the national income every year. . . .

"While tuberculosis is not a hereditary disease, the belief is prevalent that the general resistance of those born from a tuberculous stock is below normal, and that given certain surroundings, certain environment, they fall more rapidly a prey to infection. It is probable that the germ-laden atmosphere in which so many children in our large cities are born and brought up in is sufficient to infect even the most robust constitution. In this connection, underweight at a given age is important, as underweight with a family history of tuberculosis is a factor which favours want of resistance and liability to infection. The fact that many undergrown and often underfed adults commence work at a comparatively early age often in dust-laden surroundings, and the harder the dust the more probable the incidence of tuberculosis, materially predisposes to infection from the ubiquitous bacillus of tubercle.

"Various states of mental instability from which some 2 per cent. of the general population are said to suffer are, as would be expected, causes of much national inefficiency from obvious reasons. . . .

“ A survey of the facts I have ventured to place before you indicate : (1) that the physique of the nation is far short of what it ought to be ; (2) that the efficiency of the nation suffers correspondingly ; (3) that measures should be taken to improve it.

“ How, and in what way then, is it possible to improve our national physique, and therefore our national efficiency and productivity ? The British as a race have a remarkable capacity for putting off the evil day, for waiting until events have happened before taking action. It is true that we generally manage to muddle through, but often at what a cost. The ravages of disease are possibly even more costly than the ravages of war, and yet with all our warnings how seldom do we pay any attention to the old adage ‘ forewarned is forearmed.’ How often do we wait until the epidemic is in full swing before attacking its root causes. . . .

“ The effect of alcohol upon the physiological efficiency of the nation is a problem of such magnitude that it is only possible to touch the fringe of the subject. That its abuse is responsible for a large amount of industrial inefficiency is admitted, but taken in moderation it seems neither to shorten life nor to increase the mortality rate. Its action is, however, depressant, and where accurate comparisons have been made of men doing heavy work with and without alcohol, it has been found that when no drink is supplied the general results are better. Industrial drinking, which probably owes its origin to the belief that efficiency is thereby improved, is unquestionably a grave error from both health and physical efficiency points of view, but is one of those deep-rooted customs which only education and an improved social status of the worker will ever banish from our midst. . . .

“ To this end, the maintenance of a high standard of

national health and physical efficiency should be our first and foremost consideration."

An appeal on behalf of preventive medicine is to be found amongst the sentiments in chapters of this book. But the astonishing thing is that any particular appeal should ever have been wanted. It ought to have been long ago—half a century—obvious to all that "prevention is better than cure." The aphorism is old enough in all conscience. Why has not action been taken upon it sooner than now? There can only be one answer, namely, that medical men have been so hard worked in endeavouring to minimise disease by direct action, against always a very grave amount of it, that the special study of prevention has not occurred to them in the clear light which now force of circumstance has permitted to filter through. Medical men are now taking breath, so to speak, from their sweating labours; they are in a better position to judge the character of the work that now should claim their extra attention.

It will better be understood how possible it is for an intense application towards one line of attack to render eager scientists more or less blind as to the existence of any other line, when I give an example. And in doing so I shall also illustrate the process of manufacturing obsession, that great disorder which enthusiasts of every kind of pursuit are so likely to develop.

All students of medicine who arrive at that section of their hospital studies named Midwifery, at once encounter an astonishing amount of abnormality that exists in the function of child-begetting, bearing

and delivering. Their main concern is amongst difficulties, and how these may be met. So much do they realise the extent of their future responsibilities that, almost without exception, they hardly believe that they will encounter anything else but serious difficulties when they come to the stage of professional registration that permits them to engage in actual practice in the world of women. They are actually surprised to find that child-bearing can be quite an easy, normal affair. They even realise later that it can be, and indeed usually is, quite a natural function.

Hence they seem to have no occasion ever to think of the question as to how the normal may be found oftener or more certainly than it has been. Their minds have only been tuned to searching for the abnormal and to dealing with it in the best manner possible.

Again, should a young man decide to study surgery specially, he has a natural tendency to look out for surgical cases; he is thus inclined to neglect the medical side. He has "no use" for the latter. He may even hope that he may get surgical cases in order to exercise his skill upon them. He may even train himself to the pitch of seeing more surgical where truly the medical characteristics predominated. He thus learns to prefer seeing surgically, and so on.

The above is not straining in description—this will be obvious—it merely expresses truisms which cannot be denied. But they serve to indicate how it came about that only quite lately has the matter of preventive medicine come before everybody, as a most particular thing, demanding far more attention than it has ever received before.

The extent to which obsession can rule need not be laboured on this present occasion. Both medical men and the laity can well imagine, if only from the foregoing pages, how necessary it is for all those in authority to be able to exchange ideas freely and fully, to the immense benefit of everybody, so that correct orientation shall take place and a proper circling round the centre of the whole field of medicine and surgery, to the end that science shall be wholly served and not treated to the fate of having scattered efforts hammering away offensively in order to find bearings upon some sort of a reliable axle.

Nothing could more eloquently illustrate the failings on the part of preventive medicine than the present chaos that exists in every department of scientific inquiry, and in every institution concerned with the care of humanity, over the matter of food.

Only now are all the authorities beginning to agree that of all preventive forces as against disease, as well as against human conflicts generally, none can be so important as the feeding of the whole people of the world, rich and poor, white and black, young and old. That final scientific conclusions regarding kind, amount, and preparation, have not yet been arrived at is one of the most amazing facts of our present day stocktaking over the whole of advanced human efforts. That the food of man, as to kinds and effects of each, suitable for fitness, should not be known so well as is the food of racehorses, having regard for the proportional reckonings, is a matter which raises my own particular astonishment to its zenith. I cannot but think that it must astonish a very considerable number of plain thinkers, who are able, in the din of

multitudinous movements and amid a great variety of circumstances, to collect their senses so to concentrate upon the more outstanding necessities—as well as evidences of disparity in the efforts that have been made—that so little is known about human food values.

But, when one considers that only to-day is the special matter of poisonous preservations of food being more carefully considered, one can only be staggered at either the utter remissness or the unpardonable belatedness on the part of scientists who had been in any position to assert themselves. This complaint can only be softened by the admission that when big commercial houses keenly compete with one another for gaining profits they become so hedged around by protective influences, and so concealing as to their secret processes, that it requires governmental powers to intervene. And, again, the latter have been so fluid, so weak and timid in their constitution, that extensive action arising from profound inquiry has been hindered, so variable in judgment as to the prime objects in view and as to the emotions of parties and sections that even scientific authorities have run risks of being slapped in the face; consequently the more perfect outcome of full deliberations could hardly be expected.

Therefore we shall find it extremely difficult to apportion any real blame anywhere. We shall appear to condemn this body and that very severely, but it will be allowed that lots of excuse can honestly be found in various quarters.

What do we mean by preventive medicine?

We must include in our consideration that we believe in finding out what kind of food will lessen disease ; for the present writer has laid it down in a former work entitled *Vitality and Diet*, that of all causes of disease none is so fruitful as the food that is eaten.

We must also mean that we should surely be likely to lessen the amount of cancer by finding out what kind of blood it is that favours this disease ; for do we not know that in the blood may reside certain protective qualities which will help to constitute an inhospitable soil for germs, and that these will not reside there in commanding quantities if the food eaten is by nature not suitable for producing and maintaining them ?

We must mean that we intend to lessen the amount of tuberculosis, firstly, by precisely the same means as suggested in the last paragraph, and, secondly, by encouraging the adoption of healthier conditions under which the masses and classes live, as regards housing and work and play, so that healthy minds may be the dominant characteristic that must so greatly govern healthy bodies.

We must mean that diabetes, anæmia, goitre, dyspepsia, and a number of other disorders shall be studied in order to find true causation, to the end that true cures and alleviations shall be discovered, but further, that the causations shall be learnt chiefly that they may be avoided.

The cry for preventive medicine has arisen by force of enigmas and paradoxical situations which have presented themselves out of the welter of inefficient organisation. Some sort of organisation has favoured obsessionism in the past ; better

organisation must be found in order to bring about better balance in the discoveries and issues as departmental end results through adequate siftings.

On occasions we have seen that when surgery has become so far advanced that it has become almost ashamed of itself, then has a reaction set in to change the trend of inquiry. This has occurred in more than one great revulsion of the past. Even surgeons themselves have conscientiously felt inclined to ask at times whether operations on the thyroid gland have been the best procedure that could ever be found in order to cure exophthalmic goitre. Even radiologists have been known to look at one another wistfully, wondering whether the results of their labours have been sufficient to warrant still more thousands to be spent on supplies of Radium, and whether there is yet to be made a bigger trial than ever over still stronger doses.

There are countless instances each year of surgeons being obliged to operate merely because no other course has seemed open to anybody. And amongst these have been some in which the results of the operations have not been favourable—and admittedly so, according to the opinion of the surgeons themselves. Such examples reveal not only an anxious industry of the surgeons to do what they can, which may be all praiseworthy enough, but they show a want of finality in judgment which a fuller and freer process of finding out more about the nature of diseases and disorders would tend to produce. The latter observation may seem like an encouragement towards the impossible perfection; yet it must be good to imagine better things towards the best, even if there be some sort of

risk of action, and if the expectation that there should be so much virtue in humanity appears unreasonable.

In a very noteworthy contribution to *John Bull*, that fearless worker in the public interests, Sir Bruce Bruce-Porter, has declared :

“ No longer can we be content to whisper the cardinal rules of health in our consulting rooms. They must be blazoned on the walls and proclaimed from the house-tops. . . . I am afraid the doctors are very largely to blame, in making a mystery of matters that ought to have been explained in simple language and through popular channels, so that the poorest could hear and understand. It was mainly through ignorance that before the war the health and physique of the nation were undermined. . . . A disease-ridden community is a reproach to the medical profession. Knowledge is the sovereign cure for human ills.”

Sir Arbuthnot Lane has also sent a communication to *John Bull* containing these words :

“ Changes in the diet and habits of the people are developing rapidly, thanks largely to the wisdom and philanthropy of your journal. The benefit which the public will receive from the perusal of your articles will serve to free them not only from cancer, but also from the innumerable complaints and misery which are due to the bad food and habits of the present day.

“ What you must impress on them is that whole-meal bread and flour and abundance of fresh fruit and green food are not to be regarded as luxuries, but are absolutely essential to health.

“ I fear that you will be in conflict with many important

vested interests, which obstacle can only be met by the education of the masses.

“ You will realise how important it is to endeavour by every means possible to increase the supply of wholemeal, fruit, and green food, and to reduce its cost as much as practicable, so that it may be within the reach of people of very limited means.”

Lieut.-Col. F. E. Fremantle, M.P., F.R.C.S., Consulting Medical Officer of Health, has contributed to *John Bull* :

“ The better understanding of the rules of health is due directly to the influences that spread the medical ideas and apply them ; to the professors and lecturers in the medical schools and training colleges ; to the teachers and preachers ; and, not least by any means, to the Press.

“ I should not be surprised if in a few years there should be found among the physicians and surgeons in Harley Street, the brass plates of health specialists—men who specialise in the health habits of life, as their neighbours specialise in disease. These health specialists have their established practice and their brass plate at the door ; their instruments and apparatus of physiological examination within ; their card-index of clients ; their correspondence with the general practitioners, who have sent them their cases, and with their neighbours in consulting practice, to whom they refer, clients in whom they find suggestions of the beginnings of disease. But their advice will be mainly preventive, warning, often grave, and affecting the whole habits of life.

“ Health specialists can be the means of preventing numerous ailments and diseases ; they can be the instruments for developing a high health standard throughout

the whole country, the effects of which will be best felt by future generations."

There is a peculiarly vicious opposition to advancement shown by certain practitioners in the medical profession—enough in numbers to constitute a dangerous element—which makes psychologists doubt somewhat the originating nationality of some of them, even when British names are there to hoodwink the unwary and often far-too-kind British public.

This danger must have been foreseen by at least one very distinguished candidate who has fought vigorously and has been valiantly in favour of organisation in educational matters being directed rather under the British spirit of truth and rectitude than under what possibly had appeared to him of recent years to be savouring too much of the German sort of thing.

The pettiness of crazes which have usually developed from sound elemental data, but which have indicated an amateur class of urge is so very likely to lead ultimately to disaster, leads us to feel a contempt for any apparently new principles advanced which have not been brought into the larger practical arena through certain most carefully chosen channels of graduated experiment. For any medical man to dream of sunlight as being the best cure for everything, and that every one should go as naked as possible, so to be burnt and radiated to the very bone, because he is certain that the cat on the verandah knows the value of sunlight far better than any one else, is like playing at making houses by superimposing wooden bricks upon the nursery floor.

Such great enthusiasms may do some good ; but they are just as likely to cause a corresponding amount of harm. We shall never know just how much bronchitis and pneumonia has been caused by the great cry that went up but a few months ago in favour of whole skin exposure on the part of "just everybody."

Such acute obsessions remind us of the food stuffing that killed so many consumptives some years ago, immediately following the advice widely spread that consumptives should be so fully fed that even the threat of vomiting should not prevent their making still further efforts to get down yet more still. The sun-worshippers of later days have been on the verge of saying, "Never mind the burning, let the children lie in the sun until it hurts them." That is the way want of confidence is created.

Similarly, it was recommended only a few years ago that air was good for consumptives, who were encouraged at length to sleep before the open window to be blown at by the winds and draughts of all directions—some even with heads or legs actually projecting outside—such was the obsessional enthusiasm engendered in the minds of certain pseudo-scientists ; at such times nothing but the great argument must be served, even to the point of madness.

In science excesses of argument and application should be deemed "an abomination" just as much as careless negligences.

Preventive medicine should extend its scope towards the inhibition of extravagant experimentation and speculative rashness amongst some of the

position-seeking research workers, whose chief object in view is to get power first, through sheer pride of place, hoping to substantiate their claims to everlasting tenure by some sort of fortuitous chance. There are men who live sometimes not very happy lives on their "figure-heads."

There is a type of place-holder who has prevented preventive medicine from holding the position in medical programmes that it ought to have had long ago; such will continue to pursue their "infamous" careers as long—just so long as the British public will submit to it. But the many who are striving to obtain justice for the general public have now got a firm footing. After all, it is the general public who are the final arbitrators, once they can learn what is wanted. And they do learn, according as common-sense principles can be expressed by broad-minded medical teachers who are not afraid to open their mouths.

There is a class of ill-health prevention, to which no other writer has referred so far as I can find in an extensive search: in fact, there must be but few who could be in a position to study large numbers of instances from which a full enough judgment could be arrived at. I refer to the very large amount of ill-health at all ages which arises from personally derived unhappiness. The reader will hardly at once comprehend, firstly that such a cause could be great, and secondly that it could so forcefully affect all ages.

By "personally derived unhappiness" I mean that which comes from what is commonly called "incompatibility of temper." Psychologically, it means

conflict. And conflict is always taxing and very often devastating to physiological functioning, especially when the strain imposed within the individual casts forth from the vicious circle all sorts of tangential influences upon others. I have discussed with friends the probable extent to which unhappiness between husbands and wives exists, on studying all classes of people. Nor will it be difficult to understand what is meant by unhappiness or incompatibility if we agree to accept that the definition of unhappiness may well be implied by an examination of its extreme opposite, namely, the condition of being constantly the best of friends.

Let us for a moment consider, therefore, what proportion of married people live together as quite real friends. We shall begin by concluding that the proportion may be somewhere between 30 to 60 per cent. We will leave the mere guessing at that.

The truism I wish to establish is that so much unhappiness between parents also affects gravely their offspring, and sometimes also to some extent their other relatives. I have seen the health of many whole families to be unfavourably affected by lives of chronic conflict as between the parents.

This sort of animus disturbs that economic as well as physical even-running which is demanded by nature as a healthy conditioning ; it has the effect of causing further disturbing moods to be exhibited towards all other people who come into any kind of association. The vicious circle is fed to repletion by unfavourable effects, not forgetting the fact that material welfare and gain is bound to receive some amount of check in the whole process, making a hateful life when it

were so much better that a pleasant life all round should obtain.

Here again some readers will at first be inclined to argue in this fashion : *Really we cannot expect all people to be merry and bright, and friendly, and falling on one another's necks !*

Quite so. But I will ask such readers kindly to allow me to offer just a little object lesson which serves (and I could give many, if required, equally eloquent as illustrations) to indicate how difficulties may melt into less in volume, under the powerful circumstances of a certain mental attitude that may be brought to bear—or shall I say psychological adjustment, to suit so many who are to-day disposed to study everything and everybody from an angle connoted by this particular word ?

The object lesson being the great difference which the general public has observed as regards their own peace of mind—all individuals who lead busy lives having been subject to it—since public servants, such as railway porters and bus conductors, happened to learn from superior guidance that the policy of the London policeman (so much admired by visitors from abroad) was really a good policy which every one might well adopt, one which is embodied in the two aphorisms, “It costs nothing to be polite,” and “Avoid losing your temper.” The public and the corporations that govern service, as well as the servants themselves—all have felt the benefit of turning on this sort of oil-tap wherever trouble might arise : difficult at times to adopt, but nevertheless a principle of the very highest economical importance.

As to domestic life in particular, the reader may

think that what can be done in a "green tree" cannot be "done in a dry." I shall dispute any such idea vigorously. The principle can be adopted everywhere by all who are sane. But to what advantage? And how, so to be advantageous?

I have not the slightest hesitation in saying that if the simple bit of psychological truism referred to above were adopted universally, we should lessen the sum of ill-health by quite a considerable degree.

Dyspepsia is chiefly caused by worry. Big worries are largely of a domestic character. We will leave out of account in a small book any reference to business worries, these are amenable to such adjustment as will alleviate worries of a similar nature to what I have explained as conflictingly operating in certain kinds of people. Proceed to lessen domestic worry by better fellowship and any kind of business worries will certainly not seem to be so severe.

Dyspepsia leads to other diseases, and so on. I am offering these observations in order to encourage the study of preventive medicine by the general public. Medical men are obliged to study prevention as part of their scientific work, without which they will soon feel insecure and unhappy themselves.

Certain rules of conduct have been found to be of great value in training boys and girls under the Boy Scouts and Guides system; we should not be satisfied with this for more than a few moments; we should go straight on to contend firmly that such rules would also surely be remarkably well chosen for adults to follow out.

What the million is in sore need of, the world through, is a simple set of psychologically selected

rules of personal behaviour, which should include principles of almost a separate science, namely, that of making sacrifices or yielding, in order to help others. It is the science of altruism, which comes into being as surely as does the necessity for curbing the vices of egoism.

So that the reader shall not be too severe upon the present writer to the point of abruptly remarking : " Why do you not find such a scheme or set of rules if you know the value of any, and are so fond of telling us what we ought to do ? " I will protect myself by the reply that this is exactly what I myself am engaged in compiling this very day, as I believe others are also. On the building stocks is now another small volume, in process of construction at intervals during the writing of these present pages ; it will bear some such title as, *A Simple Practicable Philosophy*. The very egoism of this confession is an error, I admit ; but it is one of $2\frac{1}{2}$ per cent. probably allowable to scientists when working definitely in the public interest. Such an error in principle is bound to arise when a person is obliged, on writing a work that offers information, to sign his name and admit that he said so. Any teacher must be to some degree self-assertive if he is expected to be able to help any one else altruistically. Indeed, it is impossible to help others without helping self.

There is a tendency at the present day attaching like a kite tail to the end of any great outcry regarding either the extent or the definite increase of certain diseases. Big men get together for good purposes, and so surely does some relatively big money come forth to help. But, alas ! not always to succeed

in producing the best results. In fact, a little study of research generally is bound to lead one to believe that big sums of money, far from always helping, may actually prevent the best work being done !

All fine organisation and little end result : this vice appears to be growing commoner as regards efforts to conquer disease. Money for hospitals that are well conducted cannot be a mistaken direction ; the public are witness to this to a very great extent.

But the best discoveries in medical history were not made by a massed setting forth, whether of men or money. Money can find the wrong people to work, and can stimulate towards directions most delightfully aimed at but most unhappily chosen. Association in personnel can do wonders often, as in ordinary battle, but it can kill progress by the very conflicts in confinements of competitive spirit and in the emotional negating effect which permanency and regularity in payment affords. It is precisely for this same reason that government offices have such a bad name. The reason why private independent governorship, managing the subordinate enterprise of well-chosen assistants, may construct a world's model of progressive effort in organised and harmonious balance for continuity, is clear.

Collecting funds tends rather to train people to ask for something great as a surety towards performance—"Give us this, and then we will find out for you just how to deal with the situation," so to speak.

In these pages we shall swear by prevention as being the only aim for which science can ask favourable countenance without blushing, having regard for the revelations which the whole history of medical

discovery could give us if it were allowed to speak the truth. Money can actually prevent the study of prevention by favouring certain quests for cure.

We must not forget that while we have paid due attention to the fact that a correction of unhappy domestic life would diminish disease, of course including that amount of it fostered by unhygienic surroundings in so many instances, it is our duty to study, much more carefully than any one has ever done in the past, certain regulations advisable in order to make the choice in sex-partnership likely to lead to happiness rather than the contrary. Far too many young people marry by force of the attractiveness of personal juncture that is peculiar to the first few days that follow, without much forethought as to what the future may bring.

Indeed, many marry without any proper notion as to how even babies come into existence. Some of the sorriest and sickliest lives are worried through on account of this cause alone.

May I, at this stage, quote from a *Daily Telegraph* leading article, dated Nov. 7, 1924 :

“ A summer with little sunshine and much rain is not necessarily unhealthy. That is the conclusion to which the Report of the Registrar-General for the September quarter points. The death-rate in these months was the lowest on record, being at the rate of 9·3 per 1000 of the population.

“ Sir George Newman looks for no marked decline in the death-rate.

“ If that is so, what is to be done in the field of public

health ? Must it be admitted that the goal of the Ministry of Health has been reached and that it can now rest on its laurels, content to see that the existing standards are not lowered ? On the contrary, it has before it new fields of conquest. The nation must be made more efficient by reducing the loss due to illness. The administration of the Health Insurance Act has revealed an average of a fortnight's incapacity by sickness per insured person in each year. If that revelation be examined in knowledge of the great number of men and women who are not insured some conception can be reached of the economic loss which we are suffering. Is any considerable part of that sickness preventable ? The medical scientist is convinced that the answer must be in the affirmative, and given the necessary funds for an educational campaign in favour of a saner way of living, he is prepared to stake his reputation on the issue.

“ The next stage in the health crusade must be directed against those ailments which are purely domestic, arising in large measure from ignorance. No one who has studied the report of Sir George Newman, the Chief Medical Officer to the Ministry, can fail to be enheartened by his confidence that much can still be done to render the community healthier and happier, and to increase its working capacity. The urgent need of the moment is an intensive system of health education so that preventable disease, which involves untold suffering and heavy loss, calculable in millions of pounds each year, may be stamped out.”

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Infectious diseases provide a very interesting study, for viewed in clear-eyed calm perspective they are found by the student of evolution to be regulated as to incidence by the increase of population to any

extent that approaches to crowding. This fact is borne in upon the scientist through the very steps that are taken to lessen the spread, which include a segregation.

Hence it would appear that infectious diseases have been sent, so to speak, in order to act as a natural regulating influence. They thus help to minimise the transmission of unfit qualities. Those who escape altogether, as well as those who recover, are more fit to continue the indicated and inevitable progress designed by the Great Architect—to be fulfilled in the succession of progeny.

Everybody is naturally entitled to prevent death or the havoc of any sort of disease, whatever the latter may have amounted to after recovery has occurred. This is merely the plain prerogative and infinite advantage, gradually increasing, of human development. But there are very few people who realise that some diseases have, in a large number of cases, the effect of actually improving the constitutions of those who “catch” them. After the manner of ordinary “colds,” which often serve as compound alteratives to those who have been in low enough tone to “catch” them, fevers (the common name for infectious disorders) nearly as often as not produce reactionary changes which are obviously most beneficial to those who have been through them. Most doctors and mothers are familiar with instances of youngsters taking on a splendid spell of lusty development during convalescence, almost forcing the acceptance that the illness “really seemed to have done a great deal of good.”

Then when we examine the recommendations of an

accredited expert such as Dr. R. King Brown, the Medical Officer of Health for Bermondsey, we see the further value of infectious fevers in that they indicate certain defensive activities which could only have the effect of improving the chances of posterity. He has pointed out three chief methods of prevention :

“(1) The bettering of the health by raising the general standard of living, such as by better housing, light, ventilation, and clothing, and by this means strengthening the resisting power of the patient ; (2) immunity by the introduction into the body of vaccines ; and (3) the protection of the individual by preventing the infecting agent from gaining access.”

Now injection cures are a subject of much dispute. In fact, so also are the qualities of most diseases themselves, for you will constantly find people, on the one hand, who believe that it is not organisms which create diseases, but the soils ; on the other hand, there are those who pin their faith in battling against organisms alone, to their extermination. But when researchers find disease organisms in people who are not suffering from the disease which they are expected to cause, what is the arbitrator to conclude ?

The fact is, that the exact part played by organisms found in association with signs and symptoms which characterise specific diseases, is not accurately enough known in the present state of scientific knowledge.

What is perfectly clear, however, is this : diseases will not occur if the soil upon which they prefer to thrive is not there. It is equally clear from extensive experiments made that immunity is conferred by

certain diseases, so far as to render recurrence extremely improbable ; moreover, that a mild form of a disease may make it more difficult for a severe form to attack an individual. Hence vaccination. But also hence mistakes regarding vaccination.

I have no hesitation in issuing the warning that there is far more experimentation going on by way of injecting culture derivations of organisms than what our already really accurate knowledge of the whole subject warrants. There is rather a tendency to-day towards pumping in all sorts of haphazardly selected material in the hopes that some favourable turn of the disease may be manifested in order to give encouragement to victim and victor alike. Again, there is a looseness of judgment likely to arise from such promiscuousness, as is commonly observed, to make a *post hoc* beget an instant *propter hoc* conclusion in the minds of enthusiasts. That way quite good principles run the risk of becoming temporarily damned.

Take, for instance, the extension of application now pushing forward with eager expectation, to be studied in the administration of insulin to patients suffering from exophthalmic goitre. I have carefully read instances reported, and noted the characteristics and the changes for the better claimed as a consequence of this procedure. But I am not at all convinced that the conditions under which each patient so experimented upon have not themselves produced degrees of cure rather than the insulin. I admit that the insulin may have benefited. We shall soon learn the truth, after more experimentation has been made, but it is extremely easy for eager workers to over-

reach themselves. Some authorities believe that the Spahlinger results of treatment of consumption are obtained by healthier surroundings rather than by the material injected!

Indeed, the history of medicine contains far more examples of new treatments firmly put forward, as likely to prove the best of all that ever were, only to be found faulty and failing, than of new treatments that had been quietly and modestly introduced, finally to prove to be the most perfect that ever could be.

Therefore much has depended in the past upon the mere vigorousness of presentation of new ideas, apart from the real value of them: which is but a mock economic, one that is invert. Intrinsic value should be looked for first of all, under a system of scientific examination of principles—one likely to be the most successful in making great quests; after which only plain procedure would be necessary in order to lead to common adoption.

Plenty of wide experiment may be very good in mechanical engineering, for scrap metal cannot complain of pain, or suffer the same sort of deplorable disease, as can human beings in the hands of even the most skilful operators.

There is also a great tendency to announce discoveries before sufficient trial has been made, as seen in published accounts of the administration of malarial fever to those suffering from certain grave nervous disorders, when it has not yet been sufficiently decided how temperatures of the body, arising from any of the less virulent organisms, affect individuals both in health and disease. It may well be that any kind of

rise of temperature benefits anybody suffering from blood contamination.

When one comes to examine closely the effects of Radium and other puissant ray apparatus, here very considerable misgivings must arise from the fact that these agencies are most deadly under certain circumstances. They are deadly even towards the administrators. It is true that there have been studied differentiations of application in painstaking and most scrupulous hands, but while the causes of disease and of deaths from ray work of operators are so little known, it surely behoves those who are very praiseworthy enthusiastically to estimate very carefully, not only the apparently favourable results for the time being in patients, but also the possibilities of later trouble arising from them. Who knows, in many instances, whether a patient has died from the disease or from rays, when rays have completely failed in a prodigious number of cases?

It follows that at least as much industry should be shown by experts towards finding out the harm which procedures can inflict when experiments are made towards settling the amount of good. If this warning had entered the hearts of the pioneers who pushed the virtues of formaldehyde once upon a time, then we should neither be witnessing to-day sardonic expression on the faces of former believers in the efficacy of this material, nor hearing contemptuous Yahoos everywhere on account of the later discovery that what had been considered to be one of the most wonderfully beneficial medicinal products on earth was now believed to be an insidious and peculiarly

abominable poison. And big people have been involved in this illuminating inquiry plus the debacle thereon and thereafter.

As to psycho-analysis—How can one touch upon this subject in a preventive chapter at all? Of all the flagrantly unwarranted collection of claims that medical life could ever have become afflicted with, this may well be considered as a disease of Teutonic degeneracy *par excellence*. Psycho-analysis stands pre-eminent as a method that is at least as likely to produce disorder as ever it could either cure or prevent.

I condemned Psycho-Analysis many years ago, and published this condemnation in *Advanced Suggestion*, first edition, in 1918. I also condemned it in no uncertain expressions later in the *Evening Standard*,—not unkindly towards the general public if at all unhappily for its votaries.

I cannot consider that this chapter would be full enough without reference being made to the call for prevention which comes out of the mouths of those who have a proper regard for the happiness of the young—as well as a deep interest in the peace-of-mind and welfare of such as grow up to adult maturity, whether as victims or as witnesses of any afflictions—I refer to the manner in which children are reared.

Space will not allow me to do more than pick out just one aspect about which due warning has come from a *Daily Mail* contributor. Ruth Partridge and Barnard Railton have written their opinions regarding the frightening of children by parents as well as servants and tutorial guardians. The latter has

declared that "It should be made a criminal offence for grown-up people to frighten children." The former has written: "I have known more than one grown-up person who confessed to fear—carried on from early years—of policemen. Children should be taught to regard policemen as friends, to whom, if lost, they can always safely go. . . . Parents sometimes instil fear in a child by suddenly exclaiming, 'Mind, he will bite!' if the child goes near an animal. Children—naturally fearless—can be made arrant cowards in this way."

Here we have a preventive of disease which deserves the closest attention on the part of everybody who has the interests of both young and adult people at heart. An immense amount of adult agony and even disease of body and brain is caused by foolish examples set when young. It seems to be forgotten (notwithstanding my previously published warnings) that the young are far more educatively impressionable than older people, as shown by the comparative quickness with which they can learn to balance in cycling and skating, the reason being that their powers of concentration and committing to memory are high in accordance with the virgin, uncrowded, and free potentialities of the mental field. Later on in life they learn much of what we may consider to be of the nature of an additional packing in, to the extent that after middle age it is comparatively difficult for them to learn anything fresh because there is much less room left for concentration while the whole energies must be kept to some extent practised. This gives precisely one of the reasons why it is easier to unlearn in youth than it is in middle age.

The younger the age the greater should be the care in forming character and in guiding as for permanency. The more carefully the young are brought up the less trouble of any kind will be encountered in later days. And nothing implants itself in the recesses of the young mind so permanently as highly emotional shocks of a terrifying or shocking kind. I have emphasised in other writings the great value of training children towards the truth at every turn.

Prevention of birth cannot be left out of our consideration. The prevention of misery and disease, is an expression which the enthusiasts over contraception would like to claim as an excuse for their propositions for controlling numbers and regulating the quality of offspring for posterity.

I have written in a former work entitled *Sex Problems*, published by Mills & Boon in 1922, these words :

“Eugenists and ‘preventive’ people, who contend that we ought to become more artificially selective, should remember that off-hand, radical, and abrupt regulations must not be peremptorily recommended, or there will be penalties.

“It has long ago been found that prevention of conception promised disadvantages and risks of various kinds. The anxious care required usually provokes a functional variance if not a permanent local disorder that is likely to affect the general health more or less according to the method adopted. The rule is, that normal conditions, which are evolutionarily arrived at, are healthy, and abnormal ones are not so healthy. It is equally true that some methods of prevention are more injurious than

others. The nearer the natural the less are the disadvantages.

“Moreover, many women, both poor and rich, have not succeeded, even when doctors have ordered them to prevent for the most urgent reasons, because the ordeal has been found to be ‘a nuisance,’ and not easy to carry out. All medical men know this.

“As to abstinence under will-power—speaking broadly—the truism must be borne in mind, that a vast number of humans and animals of both sexes have proved from time immemorial that it is possible to live long and healthy lives without any sexual functioning whatever—which is a provision of nature designed to protect those who are not destined to beget offspring, or who should not attempt to beget, for one reason or another.”

Lord Dawson has since declared before a committee of the National Birth Rate Commission that “the discussions of principle and method should be kept separate. Methods should be set forth to those alone whom the matter properly concerned and not discussed in books in general circulation. He has contended that the neglect of realities alienated people from the churches, and especially faith, which is only influenced by candour and directness.”

Miss Maude Royden, on the same occasion, has expressed her conviction “that some form of birth control is necessary, and advocated the dissemination of knowledge by properly qualified medical men and women, to rich and poor alike.”

I do wish that so many who take an interest in this important question would drop the figure of speech “to rich and poor alike.” It is absurd to make political capital, and to push on the masses

towards a hateful girding against the classes, out of what can only be true to the extent of an insignificant fraction.

We should bear in mind that : Nature has been inexorably stern in providing that it shall be extremely difficult for any one to attempt to prevent what she sternly insists upon. And why has she evolved towards making this difficulty ? Precisely in order to obtain the best final fruition. Just as it is difficult to destroy a single botanical seed, so that vegetable life shall persist—as is so beautifully illustrated in very many ways—it is known that a seed even hundreds of years old does not die, for instance—so, in human life multifarious difficulties are the intention—the plain design—of the Creator in order to find, and to justify and perpetuate, the best of life. Difficulties tend to make further perfection : this belongs essentially to the scheme of life, and nobody on earth can hope to contract out of them entirely excepting to run risks of incurring far worse qualities in the more distant developments of continued life.

In order to put before the reader the nature of the differences of opinion of the present day, I will quote from *The Lancet* of Nov. 1, 1924 :

“ The difficulties of the future in this country are very great. Without emigration the population is bound to increase for a time, and with 1,000,000 people out of work, that seems a very serious prospect. But if the fertility declines much further, a more serious problem will ultimately arise. Nothing like a stationary population in the life-table sense can, of course, be expected for a very long period. At present a larger elderly population requiring maintenance is steadily accumulating, while

there is a smaller proportion of persons at working ages. The prospect, instead of being one which tends to a higher standard of living, would seem almost necessarily to lead to a lower."

This authority has given three conclusions :

" 1. When the data are taken before restriction of birth became a practical factor, there is no evidence that large families were more unhealthy than small ones, and the statement that it is better to have three healthy children than six unhealthy ones has no apparent foundation.

" 2. That in place of marriage taking place at a higher age, it has probably, due to the war, taken place at a lower age than in 1911, so that the population is in a more favourable condition for the production of children now than then.

" 3. That in place of this being the time for preaching control of birth, the opposite is the case. The time for preaching birth control has passed. Whether due to birth control or not, and I think the much larger part of the fall is due to race physiology, the birth-rate has reached the level required, and any further fall will very seriously endanger the national life."

Dr. Jervis, Medical Officer of Health for Leeds writes in his annual report for 1922 :

" How people can, in these circumstances, talk of birth control and the necessity for the reduction of the birth-rate, passes comprehension. To talk of the risks of over-population with Europe depleted by war, revolution, famine, and disease, and other Continents calling out for settlers to occupy their land and develop their industries, is childish folly."

Lord Dawson, who is generally in favour of Birth Control, has written in the *Daily Telegraph*: "Does not birth control render marriage practicable at an earlier age?"

But he is perhaps not fully bearing in mind the fact that prevention so often causes incapability for bearing. And it even does so mentally as well as physically very often. How many times medical men meet instances of those who have for years prevented, but who ultimately would willingly give their ears to be able to bear a child! The best mechanism for bearing has been offended, insulted, even damaged, and has finally revolted against the later wishes of its owner.

If bearing children might be dangerous to the health of a mother, then some saving decision, some natural method of preventing pain and risks, may well be found.

But when prevention is advisable in order to save a mother's life, in exceptional cases, it has been found extremely difficult to choose a really good method. Nature has looked after this difficulty. Not yet has an absolutely satisfactory method been found.

And now I may answer Miss Maude Royden still more effectually. It has happened for years in the past that the difficulties of preventing conception were so great, the inefficiencies have been such, that the very poorest classes, whom she, in all kindness of heart seems more anxious to study than any other, have found the greatest difficulty in adopting even the very best choice that has been recommended—as though nature were everlastingly and powerfully resolved not to be thwarted. The expedients tried

have been found troublesome and often disappointing even for the rich.

It may happen, finally, that rich people who can afford to prevent will become less numerous than the poorer who may not be able to do so for one reason or another, and so a balance may be reached. For if the rich do not want progeny, then they commit the greatest offence of all against nature; they will die out in consequence as not being worthy, leaving the lower classes to find elevation as best they can. It is amid such oscillations that permanent conditions for further evolution are laid down.

After all, it will not be either from the richest or the poorest that standards shall finally be made, but from a multitude of processes which bring the type for continuance according as nature compels in spite of all human hindrances. Nature will win all the time, according as "survival of the fittest" is the unalterable purpose of existence, against which human effort will be puny and even severely punishable when flagrant instances deserve.

Sir William Milligan has declared :

"The iniquitous birth control and contraception so popular among all classes in the country will lead to the downfall of the British Empire."

These are strong words, but they serve to enable readers to judge for themselves.

My own opinion is this: help all to fulfil nature's demands by whatever means may be found. Let children be born, not to parents' disappointment or distress—least of all not to the children's distress—but under the healthiest and happiest surroundings.

If it be difficult now, let our studies be towards making all troubles less, rather than towards everlastingly endeavouring to stop nature.

If I am to be asked what I think of the present-day movement in favour of surgically operating on the chest in order to aid recovery from consumption, I am able to give a very definite and conclusive reply, to the effect that it should be a stigma on the medical profession to have cases before them which required this form of desperate expedient. All cases of lung disease should be found at an early stage. There might be some cases which have been so far concealed that the later stages had been reached before a medical man had been asked to advise; therefore surgical operation—as also in the case of abscess or fluid formation in any region of the body—would occasionally be necessary.

What we want to get rid of, as a further vicious result of obsession, is the tendency to wait for severity in order to turn on some enormity of expedient. Preventive medicine demands a lessening of extremities of disease such as may make strong appeal for prodigious procedure if neglected. We want less operating, not more—as in the case of intestinal stasis; we want less of all ultimate occasions through better systems of prevention. Those leaders in the most special departments of medical work are bound to agree with this—in so far as they must be scientists.

But, finally, what does operation accomplish in the above examples? It does not rid patients of those conditions of existence and states of soil which first caused the disease. It merely takes one arc

out of the vicious circle, with the great chance of the other arcs asserting themselves again to make the original abnormality recur in some other position or guise, at least in a large proportion of cases.

I am reminded of the method of dealing with Insanity in the past, up to now, which is this: wait until early symptoms get worse, and then possibly some label can be attached so that certificates may be clapped on; then the rest must be left to the mercy of authorities behind closed doors, whoever they may be, and however dissatisfied they may be with their salaries when shortage of personnel makes life hardly worth living and extra duties are to be worried through.

We can do with fewer asylums and hospitals when preventive study enables medical men to lessen the incidence-amount of all kinds of mental and physical sickness.

I entirely agree with Sir Bruce Bruce-Porter and Sir W. Arbuthnot Lane, who have written to the public press deploring the amount of rubber binding of the female figure. Indeed, in my own work, *New Era Psychology*, published privately some three years ago, I pointed out that deformed nipples were to a great extent the result of breast binding, and that there appeared these days to be a larger percentage of young women who had been born without normal nipples. I also warned the sex against their strivings to become boyish or masculine in outline, for the efforts made implanted sexually decadent impulses in the brain cells. My chief point in these present pages is, that better medical organisation

should lead to earlier and more definite pronouncements on such subjects by the medical profession as a whole.

One of the best examples of preventive medical methods is that perfected by the distinguished researcher, Sir Ronald Ross, namely, the prevention of multiplication of the fly that spreads malaria amongst human beings.

Another form of preventive means, perhaps even more important, is the well-known and long proved system of vaccination, first exhibited against small-pox, and afterwards adopted against enteric fever. This system produces a bodily resistance, that is, an unfavourable soil.

Such methods have only one disadvantage; they tend rather to prevent the fullest study of a more natural exhibition of anti-body-power to be derived from an improved general health which arises from principles of living that are more perfectly hygienic. The order of preventive study should begin with the latter; after which the researchers should immediately proceed to deal with exceptional instances requiring attention; when first principles have failed for any reason whatever—as on occasions they would be bound to do—then the vaccination system comes the next in importance.

Again, animal-gland administration cannot ever be so high a principle of treatment—for glandular systems which have failed to work properly on account of sympathetic vagaries—as the still more recent system which trains and directs the nerve workings and wins the glands back again to per-

manent normal activity. Though gland-extract enthusiasts will not readily be persuaded that anything in the world could ever be thought of that might be better than their own system, no matter how long the world might go on spinning, yet the present writer would be quite willing to allow that there may any day arise a better system of training glandular action towards the normal than Neuro-induction which he has discovered. Nor can any one argue that the results of extract administration generally are better than they could be by the newer method. In certain long-standing cases extracts may be better ; but as a rapid and easy method for application at an early stage of sympathetic disorder nothing could exceed the newer method. For saving the mother from developing a child which when born will suffer from gland deficiency, the newer method must be preferable ; for helping the defective child itself after birth, doubtless the gland extract is better. For saving a pancreas from the effects of panic, the newer method is better ; for correcting the coma of advanced diabetes quickly, insulin, for the time being, is better than anything else as yet known.

As a preventive measure I would also earnestly beg the scientist to study relaxation as it can be applied in maternity cases. It is only necessary to note that, as a rule, at the date of her delivery, the mother is tensed and soon worn out on account of her worry, anxiety, and fear, the consequence being that the natural expulsive powers are also exhausted : now by means of autonomous relaxation, when applied by the doctor, her tense general distress is lessened.

The procedure is very simple, and may well be described as a teaching of the whole system to be restful and comfortable, which enables the special locality engaged in its particular birth-giving function to get its best opportunity.

Of course, very occasionally, there will be some abnormal structure in the mother, or there may be a wrong position of the child in the womb, both of which will require the extra skill of the doctor ; even instrumental help may therefore be necessary in a small percentage of cases.

If autonomous relaxation were employed in all cases, there would be a great diminution of instances in which instruments were required, and altogether the risks to mothers would be greatly lessened.

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THE FOOD PROBLEM

It will be obvious to every reader that human diet has not received sufficient attention on the part of scientists concerned with the public health. To say so, and to admit so all round, is a sign of increasing power and confidence as for the future. To dispute it or object to entertain it, is to be contemptible, selfish, and cowardly, eternally wishing to turn away, anxious to conceal all faults and to hide the blushes of shame as long as possible—only asking for crisis and predicament later on. The right is bound to win sooner or later, and the unseen arbitrator would surely recommend that it had better be sooner rather than later. Read *Vitality and Diet* (Melrose).

The procedure that would solve this important problem better than any other that could possibly

be conceived, in my opinion, would be research, on the part of scientists well qualified for the work, in order to arrive at food values, as regards essential, qualities, and the amounts that are necessary for sustaining good health. Such a study would result in an approximately reliable standard being arrived at as being suitable for the million to adopt; for there can be no doubt that waste occurs: (a) wantonly, through bad preparation, extravagance, and carelessness, as well as (b) innocently, as to the nutritive values which the various kinds of food possess—for costly things of little food value waste money.

On the one hand, we commonly hear of the strongest people living happily on a few pence a day, and glorying in it; on the other hand, we know of thousands who are fastidious and gluttonous to the extent of their anxiously finding the excuse that it would be “impossible to live on less.”

If leading authorities could issue a guide, giving scientific facts which the million would be compelled to accept, then it would be found that feeding generally could be made a much less expensive necessity than has been commonly found up to now.

The richer eat too much, and in bad proportion; the poorer usually eat enough—sometimes not enough—but this is uneconomical, because it is not of the best sort for nutrition, and it is badly prepared because they do not know any better way of cooking and serving.

It is true that cheap food is often poisoned food. Owing to the magnificent activities of the daily press, the *Daily Mail* being the most prominent, this plain fact is now becoming commonly known. The best of all foods is cheaper than the worst of all

foods that are preserved in chemicals and dressed to deceive by colouring matter. For instance, whole-meal bread, pure butter and milk, fresh fruit and fresh butcher's meat are all good. A very little of each will be sufficient to sustain lusty health, while quantities of imitations will give splendid opportunities for the profiteers and for those who want daily gorgings but who are not aware of the ill-health they are inviting.

There are three small books written by Dr. Cecil Webb-Johnson on diet which will greatly help towards lessening illnesses of various kinds (published by Mills & Boon). They are full of the plain mental food of common sense. They indicate the ripe medical wisdom that so often comes from those who have had great experience in general practice—from those who cannot avoid the lessons put before them in preventive medical science.

As regards pursuing principles of maintaining good health, Jewish people are wonderful, and to be admired, save in one great respect, which is, that they do not appear to be able to prevent stoutness. They seem to admire this sort of material accumulation, both male and female. Yet surely they are more prone to diabetes than Gentiles, probably owing to their not being able to withstand mental and physical strain while overloaded with "creature comforts" after middle age. Stout people have moved into a peculiarly penalising vicious circle, in that they have become to some extent deprived of the will-power to exercise themselves out of it.

CHAPTER IV

INSANITY

HUMAN characteristics have somewhat altered in the last few decades. The more advanced people of the world to-day are distinguishable from what they were fifty years ago by their exhibiting an increase of urge, as though there were far more things that mattered and everything seemed different in consequence. There is no ease anywhere now, not as it was known to our forefathers. In the religious life ease was at one time fully and eternally promised ; it was deeply and universally practised and felt in the heart and soul ; conditions of living appeared then so greatly to favour it ; but nowadays there is no such ease.

This consideration helps our understanding the more difficult problems that arise, especially when we observe some simple evolutionary changes that were bound to take place. Increase of population was inevitable ; this was the surest eventuality ; it seems even now likely to continue to be so unless some world-embracing scheme for limitation should arise. But the latter can hardly take place while people of innumerable nationalities are striving for promotion to higher places, or at least for holding

their own ; and there can be no provisional force more serviceable at first, more requisite, than mere numbers of individuals. Increase of population has been as captivating a matter as acquirement of personal property, even more so ; the predominant power essentially inherent amongst the intellectual emotions has created full appreciation of the fact that not only did numbers of offspring constitute a happy outward and visible sign of prosperity, but that this form of increase was itself a means to the more vulgar, but, nevertheless, strongly attractive material ends. At length it was realised that offspring could well assist in prolonging the life of parents amid all human dispositions to be emotionally considerate.

It would appear that we cannot have increase of population without increase of urge in the limited space of a universe. Competition for position arises exactly in accordance with the number of items, even atoms, which are there to exercise their influence. Survival of the fittest is, therefore, bound to be the everlasting dynamic of natural increase.

And what has been the most obvious anatomical increase in evolutionary changes, if it is not to be found in size of brain ? We straightway conclude that increase of brain is caused by elaboration of convolutions, which is synonymous with acquirement of knowledge. Though it must be carefully borne in mind that by size we mean that of relative estimate ; the brain of man is proportionately bigger than any other animal on earth ; it is also much bigger than the brain of man many thousands of years ago, because there is more work required of it ;

yet it has been recently proved quite conclusively that a small brain may be cleverer than a large one, plainly according to the character of the cells and the freedom of communication between them.

Therefore, we note a greater distance between the lowest and highest brain power of human beings to-day ; that is to say, great capability is certainly commoner, while ignorance is still to be found in many quarters as great as ever. And it will be clearly recognised that genius must arise through capacity for making selection and for exercising the power of concentration.

As surely as genius multiplies, so surely will "false balance" reveal itself. In fact the expression genius is very nearly synonymous with insanity. It is possible to have the one without the other, but the difficulty of keeping them from definite manifestation in the same individual is increasing.

Hence insanity has not been diminishing in recent years. Nor is it likely to do so until we can adjust our safeguards better in accordance with our increasing knowledge as to the all-round conditions under which we continue to strive. One of the warning watchwords for the future must be that to *concentrate intensely is to run serious risks*. If people wish to avoid insanity they must cultivate simple broad thinking as a safe foundational habit, upon which they may make very special and effectual developments by concentrating in certain directions if they please, but never to become neglectful as regards this basic security.

Attractions towards the making of genius are manifold, according as competition increases among

the growing multitudes. Hence it behoves us now to point the danger, not of making genius so much as of leaving at all loose the security which breadth of foundational habit affords. It follows that games are good, because they afford that steadying contrast to any special leanings that may be heavily directed by way of intellectual accumulation. It also follows that changes of mental employment are salutary, so long as the total amount of output is not too ponderous for the physiological constitution to bear.

We shall realise in a flash from the above how futile are brain-power testings, so commonly referred to by authorities recently, when the originators of them entirely fail to take into account the great tendencies which young people develop for cultivating the power of concentration. Test a boy by one small set of questions in calculation, or music, and he is to be deemed a genius; test him in common knowledge, and he may seem to be a congenital idiot. Again, test a boy in mental arithmetic, whose father is a labourer but also a V.C. winner; he may, on the spot, beat a boy similarly tested whose father is a mathematical professor, the explanation being that the less temporarily nervous a boy is the more momentarily capable he will be of concentrating.

What is insanity? It is no more definable than bad weather, bad food, or bad conduct. Insanity is only a loose term. If we choose to attempt to circumscribe, confine, and separate it by further explanation, we may say that insanity is definite when a person can be adjudged unfit to guard either his own or any one else's interests. But who is to act as judge? Decisions must clearly rest with two

sets of persons—(a) medical men who can determine the physiological and emotional processes involved, and (b) lawyers, or ethical experts, who are probably better able than ordinary people to weigh the varying values of human misconduct. Nor can one of these sets safely act without the other, unless a lawyer should happen to be also a duly qualified medical man. Moreover, in any eventuality mere academic qualification is as nothing compared with experience in practice—that is, in judging and proving not only abnormal tendencies and idiosyncrasies, but also the normal and various interesting shades of individual conception.

Then having got your true case of mental derangement, in accordance with the highest and best means of sifting, weighing, and assaying, what are you going to do with it? The white-skinned mentors of old, on one side of the earth—the European—decided that any person who was insane should receive corporal punishment; while, on the opposite side, the religion of coloured people included a peculiar reverence and awe for precisely the same kind of case. The one individual was to be held in chains and treated like a brute; the other was to be accounted a very rare kind of additional god that merited the utmost kindness, the most profound respect, a far kinder guardianship than any normal people could ever be favoured by.

What of the general views regarding insanity to-day? If you search the printed records of cases and note the medical principles of treatment attaching to each, you will find a very common and distinctly humane expression constantly cropping up, namely,

“the Care.” Much less often will you find the word “Cure.” Yet the same authorities will meanwhile fervently ask you to view insanity as an ordinary illness, and, above all things, to avoid using the horrid word asylum—mental hospital being a much more fitting expression.

Thus the idea of “care” came to be an indication of the degree of study and consideration. The reasons for this are not altogether easy to discover. The predominant factor suggesting “care” was undoubtedly the difficulty which the management of insane cases gave; patients were usually of an unruly, obstinate, and awkward order. But it would appear that this feature ran neck and neck with the difficulty which experts found in trying to understand the real nature of mental disorders of all kinds. Hence it came about that any available means of dealing with the insane, such as were practically possible to apply economically, were hardly prescribable beyond the “taking care.” It was hoped that further knowledge regarding cure might find itself somehow, some day. “Care” came to be an obsession begotten of compound and conflicting difficulty, while locked doors would always allow sufficient sleep for anxious and responsible officials every twenty-four hours.

This matter of care, therefore, having developed from ideas which made punishments “fit the crime” to the more sensible view that interpreted care to be pure and simple control—improvable to the point of being as humane as varying hygienic principles could make it—left the question apparently for ever begging out in the cold as to how mental derangements could be cured and prevented.

While further studying the causes of neglect to make "cure" more a matter of deep study, the reader must bear in mind that all the leading authorities have admitted that any experimentation and exceptionally applied methods for the cure of insanity, over the last three decades, have not brought the proportion of favourable results that has obtained in other branches of medicine and surgery. In my opinion this disparity is more due to the difficulties which have been found in advancing the science of psychology than anything else. Indeed, I consider that I am in a very good position to prove clearly that this is the case.

During the past ten years certain men of research, acting independently, have not only been making deeper study of the physiology of the nervous system, brain, and mind, but they have been applying the results of their extensive research to the difficulties which mental disorders have presented; and they have obtained most favourable results. Indeed, it has been found that many conditions formerly considered to be incurable are now curable. Quite apart from fresh facts which have been discovered regarding the causation of mental derangements by the ordinary medical officers of mental hospitals, as a result largely of greater knowledge revealing itself generally in medicine and finding its way into every branch of medical work—facts regarding the alimentary tract, eyes, ears, teeth, etc., and the influence which these exercise on the brain—there have been great advancements made in understanding the pure and simple functioning of the thinking machinery.

It has been found that the first cure of all for thought derangement is a means which will create greater facility and consequently greater accuracy in exercising even normal thought in normal individuals—a means named Neuro-induction. That this means is paramount in importance—now requiring the first attention on the part of all alienists—is shown by the fact that, notwithstanding various aggravating local troubles of the body, the abnormal mind itself is made more capable of finding correction towards the normal when it is helped by a certain simple form of nerve and mental training. Not that it could ever be recommended that local factors of causation should be neglected, but direct help to the thinking machinery is proved to be of first importance experimentally, through its having been employed with great success while other factors had been meanwhile present, but which for the time being were disregarded: though there are many causes of mental derangement, yet direct help to the thinking processes will even make local treatments of any kind easier to apply.

In the past any kind of mental training for curing thought disorder has been wholly neglected, save endeavours that have been made to interest and make happy by ordinary means some of those suffering from the more naturally educable forms of mental disorder.

Moreover, the new method, which for years has amply proved itself to be paramount, has served to make obvious the fact that, while in the past the great majority of patients have been judged solely and entirely according to the different manifestations

of *disorder* presented, in future the amount of sanity each is capable of exhibiting at intervals must be considered as of still greater importance to judge if a favourable issue is to be sought, it being a fact that most lunatics are far more sensible than they are given credit for by adherents to the methods of the old school.

The new method has been opposed. Most valuable new methods in medicine have been similarly treated in times gone by. But the positive results are now far too clear and numerous for opposition to be any longer sustainable. Those medical men who do not accept the new findings in future may run the risk of being considered guilty of unpardonable negligence.

As regards the provisions for the insane, all people's ideas are altering—including medical men. No longer is the life of the lunatic to be that of a prisoner, but that of the hospital patient.

Also regarding sociology in the widest acceptation of the term, it is the public and its press which will be the final arbitrators when common sense only is required as qualification for judgment.

Common sense is even a more reliable instrument than the law courts. Lawyer judgment is liable to get confused, through its very special sense of feeling obliged to watch precedent so carefully that the prospective becomes a thing almost to be dreaded when the shifting sands of circumstance all the time produce hateful insecurity when final decisions come to be expressed. Hence action, appeal, reverse of appeal in House of Lords, which all end in much dissatisfaction everywhere.

THE MAKING OF MANIA

Some few years ago a famous American scientist, becoming psychologically interested in his own son's advancement, thought that the latter could well become a foremost genius by means of a very carefully planned and intensive cultivation of the intellect. It has recently been recorded that the educated outcome of his efforts, as now manifested at the age of over twenty, is a most disastrous failure. The young man, after excelling all others in ordinary learning, now shows himself to be far less capable of earning his own living than the average clerk in an office. Here we have an example of a youth who is too specially clever to be ordinarily sensible.

When we consider such an instructive example by the side of another still more distressing one in America, which has recently claimed the interest of medical scientists and jurists throughout the world, we are persuaded to ponder over the conditions which are likely to make education a safe matter. Two schoolboys cruelly killed a third boy. Trial before a jury took place in due course in order to decide whether the two boys, who had both reached positions distinctly above the average in school, were murderers of the ordinary sane type, or whether they were homicidal maniacs in whom high education had produced a concentration of cleverness, on the one hand, while criminal inclination had developed enormously on the other. The explanation was forthcoming that there had been a lack of balanced training from quite early days.

Have we not in the above instances very clear

examples showing that the manufacture of genius is at the same time apt to create some form of madness ?

Whatever our final psychological judgment may be, we are, at least, able to extract a very wholesome lesson from such strange results. It is quite obvious that when the young are placed in a favourable position for rapidly deriving knowledge, it is extremely necessary that the scope of their learning should be so planned as to give room for very clear understanding regarding the simplest ethical first principles and truisms. Masters must not imagine for a moment that, while they contrive to pack in very particular facts, common knowledge will also surely be there ready-made.

Had the homicidal boys of America been well schooled in Boy Scout behaviour, they would, in all probability, have never reached their present plight ; the emotional senses of right conduct would have been present as a foundation before any other sort of higher acquirement could be considered as worth holding.

It is almost a commonplace that the better a boy plays the better he works ; that is, when playing refers to "the game" as ethically understood by Boy Scouts. Murderous boys have doubtless been spoilt, either by bad example, or by no example at all of a good-behaviour order. Their learning has been mainly for the purpose of passing examinations or fulfilling requirements.

The danger of over-educating certain precocious youngsters is very often clearly seen by both parents and schoolmasters, even before school work has

commenced ; but the fascination which the acquirement of knowledge affords both to parents and offspring nearly as often finally breaks down all barriers of early firm resolve. Parents have been known to throw all resolutions of restraint to the winds when minor accomplishments in a child have revealed themselves to be above the average ; especially when masters have favoured, because of their delight at the prospect of great credit which the rare capabilities would bring them. It is very difficult to keep back any keen disposition to learn.

The law comes into view, therefore, that there should be no great concentration of brain energy without a corresponding amount of consideration and time being given to the easier and yet quite precisional diversions.

But, when an anxious and ambitious master will insist on rapidly teaching his pupils to pass school examinations, and the excuse is found that games are impossible—say, in London—what is then to be done ?

The answer is, that some sort of limb-exercising diversion should be found that involves precision of a kind that occupies the mind mildly and engages quite a different set of brain cells from those occupied by school lessons, such as wood-carving or machine-making and mananging.

A large number of the most successful people in the world have been self-educated under great difficulties. On the other hand, many university wranglers have complained of feelings of ineptitude and shy insecurity when they have gone forth to lead an ordinary life of usefulness.

IS SUICIDE PREVENTABLE ?

It is usually considered that when a person commits suicide he does so because he is mentally deranged, at least for the time being. In the case of two people agreeing both to commit the act, there have usually been distressing circumstances which have led to an extreme urgency of thought affecting the two.

When the two are of opposite sex, and the male is the first to commit the offence, there may or may not have been an agreement beforehand as to the grave procedure applying to both. In fact, the female may possibly have persuaded the male not to end matters in this manner. Yet she may afterwards commit the act herself in her distress on seeing the male dying or dead ; it may become apparent to her that she would be left alone to face the ordeal of giving particulars as to what had been so agonising to both before the final crisis, especially after she had made futile efforts to stop the drift toward further misfortune which had been gradually growing too painful to bear.

When of opposite sex the greater sympathy is always extended towards the female, for obvious reasons. But it is almost impossible to judge which had been the instigating or greater compelling force unless clear evidence should exist as to what the mental attitudes of each had been before the deeds were done.

Sometimes a man and a woman, both being desperate, will suggest suicide for both, the woman declining but agreeing to be put to death by the man before he committed the act against himself. This

compact is usually a result of the woman being afraid to do what she believed might well be done by both if both were able.

People who contemplate committing suicide should at once seek the advice of some person whom they can absolutely trust. The great majority of people who have committed suicide have actually had sufficient sense remaining to realise fully the gravity of their proposition, even immediately before the act; but the other path had not been pointed out, and had not been conceivable by them. Very often there is nobody to point one out, because the victim's feelings of concentrated agony and hopelessness have created a disposition to be secretive; he or she is often too ashamed of the conditions which have caused the distress.

Some sort of ill-health nearly always precedes the resolve for self-destruction, especially when it has helped to create anger as against some one who may not be in the least to blame. Suppressed anger against fate may be found, if not as against any individual, the victim moving to suicide after concluding that all circumstances seemed to be preventing any sort of real happiness.

Ninety per cent. of suicides would be prevented if those in distress could but find a means of candidly and fully declaring their miseries to another party. It is true that many people in distress do so, and yet commit suicide. This may be owing to the fact that their trying position has not created any sort of sympathy, or because repeated threats of suicide have not been believed.

It should ever be uppermost in the minds of everybody that whatever may be their condition, the

greatest offence they could commit is to leave this life in an unseemly and ungrateful manner, after having had the great privilege given them to live.

GREAT PLUNGES INTO HAPPINESS

What is all our human urge about? Let us examine ourselves, to see why we ever have any difficulty at all, and why there is so much envy, hatred, and malice in the world—so much struggling for positions in masses, classes, also between these two, and between nations.

It all comes from survival of capability, from reflex ascendancy of increasing power. It is therefore inevitable; it is inherent; it is even of choice, according as people generally are born to select, to prefer, to act in order to obtain—and therefore “to trouble,” as the greatest of all books says.

Ambition is as the heat of the blood, without which there would be a sickening to death. But we shall not pursue our humble philosophic quest very far, in our endeavour to get down to the true explanation of urge, before we note that the cause is emotion, which arises directly “from the heart.”

It is emotion that feeds our urge and that consequently makes our unhappy as well as happy moods. We are continuously within the happy coils and toils of things that favour, but which are sure to bring bruises and pains and marks made by the tightnesses thereof.

Then how can we help ourselves? Shall we allow ourselves all this urge, as though clearly seeing the inclined plane upwards, and wanting to proceed upon it, but only to be deceived as to the true level, which

almost as in a dream brings us down again, leaving the nearly absolute horizon to force the realisation that, after all, it is really neither up nor down that we are going, but much on the seemingly plain flat of the old solid earth ?

No ; we can do better than that. There is one single act of renunciation which would make the whole world happy, if all its millions would but perform it. All have indeed found, as a truism, that urging forward requires the sacrifices of pains and penalties ; therefore exactly the opposite should be tried somewhat—which will bring corresponding happiness of ease.

Why do not people, instead of eternally wanting something more, universally realise that doing with less is at least occasionally much the better plan ? Of course the answer is because the idea of getting more is insistent in the great scheme of nature—which is to advance.

All of which brings us to the safe medium. If we endeavour to do all we reasonably can without exercising too great an ambition, always realising that we had better accept downs as well as ups, knowing that all processes in creation are of the nature of oscillation, then we shall be all the healthier and happier for it.

Small doses of the sense of self-sacrifice are the best medicines in the world for the mind ; the effect they produce upon the mind is similar to that made by plunges into the swimming-bath upon the body ; they stimulate towards elevation again. A penny to the beggar on the roadside, a Boy Scout act of kindness, such are as daily draughts of good spring water to the hard-working traveller on his way.

A great plunge into happiness is the realisation that most of us could do with much less of this world's goods than we get, as is shown by the actual proofs in existence that our forefathers were happier than we are now, even if they did not live so long, and yet they had less incomes to get along with.

We are therefore compelled to conclude that we ought to be clever enough to live happily as well as longer. And yet the complaint comes from America that her people are losing their power of smiling.

The greatest human sin to-day is unthankfulness for the lavish and constant sun-ray blessings conferred by the unseen hand. To feel specially thankful is far pleasanter than plunging in a bath of champagne.

In order to illustrate how strange some people can be in their minds, it is interesting to make a special study for the moment of instances in which great success in life, or the hearing of good news, has created such revulsions and convulsions as caused repercussions of an exactly opposite nature, or at least created just the opposite frame of mind to what reasonable observers of the incidents had expected.

Many a man, who has been declaring for years that it had been worry and the difficulties in life that had driven him to drink, has suddenly come in for some material good fortune or other only to find swiftly that his joy merely led him to drinking all the more.

But there are numerous instances of people receiving good news regarding the multiplication in value of their property, first dreaming that they had been ruined and then soon afterwards developing the incurable idea that they were actually so, re-

minding one of those dispositions which are prone to being all the more anxious the richer they become.

The above cases are quite different from still another class of people who have derived great distress from good fortune, such as actors and actresses, who have become so sick of the long run of a play that they have been known to feel as though they could go mad with the repetition of their skill, night after night, while those who knew them repeatedly complimented them all the time for their brilliant and apparently unending success. Until at length it has almost seemed impossible for them to imagine a capability for engaging in any other play or even employment.

While it is true that "nothing succeeds like success," to many an artist a first "best seller" has been their ruin ever after. All of which suggests that it is safer for an originator to be modest, even when the whole world is insisting that every virtue shall be poured upon his head. Yet every successful worker can always make himself safe by remembering to enumerate the things he has not done and never will do. Narrow-mindedness offers the most insecure pathway to any kind of progress; while pure concentration is the devil's own signpost—as luring as spiritualism—in that it emptily promises quite a delightful life amongst the choicest people, such as you can even learn to love before you "go over" to join them, nobody being able to offer the smallest proof that this may be so. And still there are people living in high positions who argue that "power of imagination" is the best of all forces one can possess.

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I have recorded the remarkable fact, regarding insanity, elsewhere in my writings, that while, on the one hand, there is full recognition by scientists and every one else who reads, that for weakened muscles the common-sense indication is for exercises to bring back power again, on the other hand, for weakening minds there has never yet been devised a direct method of exercise of the thinking powers towards their becoming strong again. Change of air, scene, routine, diet, etc. etc., have all been studied; and sometimes such changes have in their total effect conferred even disadvantages, as when the less unsound have seen more than they ought of the more unsound; but plain analyses of thought difficulties have been neglected—I do not mean the Psycho-Analysis of Freud and others which I have long ago criticised unfavourably—while any therapeutic adjustment after the manner of direct and individual mental guidance has been deemed impossible to carry out.

A vicious circle has been at work in fixing this strange disparity. Lack of knowledge of psychology has operated first, which has persuaded institutional authorities concerned with “the care” of the insane that there need not necessarily be any further urge regarding advancement.

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WHAT IS NEURO-INDUCTION?

Neuro-induction is a means of helping victims of difficult and disorderly thinking to become throughout easy and orderly again: as the difficult thoughts of a person may be reasonably recognisable and

simply analysable by another person, it follows that such other person is likely to be able to render some assistance by means of his own orderly expressed thoughts: if a man be deeply shocked because he has witnessed an awful accident, he can be helped to recover by another who makes calm and reasonable references to such occurrences, and who counsels the victim of worry to refuse to be any longer shocked.

All this will seem natural and easy enough, but psychotherapy goes very much farther than this, both as regards finding the true nature of the shock or worry and as regards a special method of application of restorative reasonings and recommendations. Accurate diagnosis of the form of thought excess or disorder is necessary if a right adjustment of remediable word expressions is to be made by the psychotherapist. It is not always easy for a patient to declare the nature or causation of a mental and physical shock or strain. It is therefore often difficult for any but an analysing psychotherapist, schooled in the best method, to find out what are the true causes. While the opinion is becoming increasingly common that the psycho-analysis of Freud and others is at best clumsy, lengthy, and in every way not only difficult, but all the time doubtful, I have to declare that the best form of psychotherapy will be found to be Neuro-induction, which assists in the finding of true causation *by clearing the thinking apparatus of the afflicted at the very outset*, which is done by first teaching the patient how to obtain immediate automatic relaxation in both body and mind, so that the latter can more easily act. Exchange of ideas with the physician is not only

facilitated by this means, but he is able to explain sensations and circumstances more accurately to the patient.

The discovery of Neuro-induction, which is a simple scientific process of teaching automatic relaxation and normal order, in both body and mind—by first correcting tenseness or strain—means that as regards the treatment of so many persons who suffer from mental disorders, in future, not only will the true nature of nerve- and thought-strains be discoverable earlier, but all stages of severity of functional disorder, even those that are complicated by organic disease, will be met by a much more effectual treatment than has hitherto been available.

Neuro-induction has been the means of bringing to light some very valuable new Laws in Physiology and Psychology, appreciation of which in turn has helped greatly in perfecting this mode of treatment (in positive circling).

Autonomous relaxation is the foundation of Neuro-induction, because it is a preparation for education—almost as a favourable surface is necessary before a fair elevation can be drawn upon it. This kind of relaxation dispels tensenesses and inequable stresses ; it levels inequalities of physiological processes, to a considerable extent, before any new structure or restoration is attempted by neuro-inductive measures.

A screwed-up person is one whose nervous system forbids easy thinking. Autonomous relaxation at once unscrews. It is a law that imperfect thought-power is often the result of a tense nervous system. All physiologists know this, but it is as important that all scientists shall realise it as clearly as painters

can recognise the dependence they are bound to exercise upon the nature of the material they have to employ. Nor can physiologists fully realise negatives until the chastening of positives has cleared the horizon : in order to realise fully what an energy is, it is quite necessary that a full conception, and even an illustration, as to what its very opposite can be, should be found if possible.

Autonomous relaxation is the instantly demonstrable, and normally securable, opposite of physiological energy.

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Dr. Montagu Lomax has done a considerable amount of good by his studies of insanity, and will not receive enough credit for it, I fear. One of his contributions to the medical journals contains this :

“ But whatever our indifference as citizens, it is simply impossible for us as doctors to dissociate ourselves from the problem of insanity and to regard it as a special branch of our profession with which we have little or nothing to do. If we attempt to do so the public will soon undeceive us. The mere fact that we are every day consigning people to asylums is proof positive in the public eye that we cannot evade this responsibility if we try. The public say, and in my opinion say rightly, that if doctors do not make a special study of insanity, and have not the least idea what asylums are like and how patients are treated in them, they have no right to sign lunacy certificates and consign people to what may be, and often is, lifelong imprisonment. The fact is, and the sooner we realise it the better, in everything pertaining to lunacy and its treatment, the public attitude to the medical profession is one of increasing dissatisfaction and

distrust. I have not been studying the question for the last seven years, interviewing hundreds of patients and ex-patients, and reading thousands of letters from the same source, without having that fact firmly driven into my mind. And I may say at once, as a medical man with asylum experience of my own, that for this feeling, there is in my view only too much justification."

In order to help the reader to study a difficult question broadly, I will close this chapter by quoting the following :

" Dr. A. L. Baly, Medical Superintendent of the Lambeth Infirmary, stated that the institution over which he presides had dealt with 615 mental cases in twelve months. The principal cause, he declared, was domestic unhappiness.

" That incompatibility of temper exists in all classes of society is amply proved by the records of the Divorce Court. Yet we make bold to say that the great majority of the squabbles in poorer homes that fret the nerves and lead to mental derangement could be removed if the domestic conditions were made happier. Drunkenness and disgraceful housing are the main causes.

" Our various Governments have been tinkering with the housing problem for many years, while at the same time they have done nothing to furnish the working man and his wife with reasonable facilities for recreation outside their narrow homes."

CHAPTER V

INHERITANCE

THIS subject has greatly interested readers of one scientific journal or another ever since Darwin died. Some years ago it was a favourite star for the telescopic eye of the editor of the *Nineteenth Century*, who was always looking for changes in its appearance and for any promises which workers on the subject might hold out. It has recently made its appearance in more than one medical journal.

Forty years ago I examined the lessons in Darwin's works with the deepest interest. The first time I referred to the subject in book print was when *Advanced Suggestion* was first published, in 1918 (2nd edition, 1921; Baillière). Here I wrote :

“Professors Adami and Cunningham may therefore both be quite happy with the conclusions of this book, for if glandular secretions really do produce chemical stimulating effects, then I must maintain that this is primarily through the influence of neurones ; moreover, in the case of the lower organisms I would point out that we have every right to conclude that primitive neuronous elements were active before glandular, for, in studying the higher animals, when an idea has caused

disturbance in bodily functioning it is the neurones which have primarily governed effect."

On Jan. 18, 1922, I was responsible for this paragraph in the *Medical Press* :

"Transmission of Acquired Characters is transmission of potential neuronal impulses as acquired. The neuronal elements of the impregnated ovum develop in accordance with those of united parents. Advancement of capability is clearly seen in neurone growth in the living being repeated in progeny. There can be no other explanation of intellectual and physical advancement, emotion being the cement for the building up of experiences or facts."

In the *British Medical Journal* of Jan. 21, 1922, a correspondent earnestly appealed for information on the subject.

In the *Medical Press* of Feb. 1, 1922, the Editor wrote :

" But while we are ignorant as to how the germ of our various feeling potentialities first arose, just as we are of the origin of our various anatomical characters, there can be no doubt that each of them, so far as it has proved serviceable for adaptation, has been strengthened by natural selection. Many recent thinkers have been all too ready to overlook the importance of this factor in biological evolution."

The last sentence is very deliberate, but it is quite a kind challenge ; it might even be a gentle criticism of my words quoted above in the *Medical Press* of Jan. 18. Howsoever, I am pleased to make answer to this if I may be allowed :

Development of the brain means multiplication of

neurones ; development of the brain also means multiplication of muscular potentialities—in other words, it means a fuller adaptation to environment—or an extension of effectiveness.

Of course, positive circling comes in ; affect creates effect, and effect creates affect ; multiplication of neurones makes increase of muscular capability, and *vice versa*.

Darwin gave us the direction towards proof of the inheritance of acquired characters when he studied the behaviour of fauna under domestication ; he pointed out that variations could be found, and by design perpetuated, to the point of “breeding true”—in birds particularly, but also in dogs.

Reflex and central inflex govern structure. We must realise that increase of neurone potentiality in the brain can occur through impulse—through exercise, brought about by special sense stimulus afforded by outside influence (environment).

In development from primitive cellular structure, even before the amœba, modification of structure came through the neuronous element, probably produced by, but certainly developed by, environmental check or shock or urge occurring as a necessity because of the inevitable evolutionary truism that the fittest must survive.

The cause of organic creation and growth is a question that is beyond the clear answering of either theologians or scientists, at present. Growth, and check to growth, are conditions peculiar to existence, and this is all we can at present go in our quest for causations. We cannot yet answer the question scientifically—What is the cause of life ?

Brains are continuing to develop—as they have formerly developed—in accordance with environmental stimulus, if not in weight then surely in number of convolutions, and more certainly still in complexity and capacity for functioning. Human beings are ahead of the higher apes; thus we have indications of the inheritance of acquired characters that are obvious because human beings are exhibiting enhanced capabilities as the years go on.

What the ultimate perfection of structure and function may exactly be, and whether we are in these days being rightly directed towards it in evolution or no, nobody can answer; but we can safely say that the best of humans are to-day accomplishing things undreamt of by their ancestors—things requiring greater brain power—greater neurone development. And progeny is inheriting this power without a shadow of doubt.

An amputated dog's tail or man's leg is a kind of characteristic that is not transmitted. Such rapid happenings do not belong to evolution; they bear no comparison with variations commonly called "sports." To be transmissible, an acquired character must first be neuronously formed, either in the brain or in mere collections of neurones such as belong to the more primitive creatures. Environment acts on the brain more surely than does a voice on a central exchange in an artificial electric system, and it leaves its effect in human brain sensitiveness. There is more or less permanency in the enhancement, both of this neurone sensitiveness and of the increased facility in synaptic conveyance.

Quick, large, or isolated effects in neuronal develop-

ments are not to be expected. Definite maternal impressions straight from mother to child are not likely to be found very frequently; although enough supposed examples have been recorded to indicate that such direct transmission may be possible, yet careful study of phobias has brought me to the conclusion that any examples which appear to be real may not be so. In two severe cases of dread of birds, the mother of the one had been shocked by a bird flying into her flowing hair, and the mother of the other had been a worried dealer in foreign birds' feathers, yet my latest study of these cases gives me to realise the possibility that each patient may have been terrified by birds in their infancy and not through their mothers' experiences, a tendency to fear anything suddenly fluttering having been common to both.

The closest searchings in the last few years have made me more certain of the transmission of acquired characters through neurones, and less certain that any material impressions are provable; but I shall not be at all surprised to hear of proofs of direct impressions any day from other observers.

Let us now examine more closely some of the facts as elicited by Darwin and others, and endeavour to settle the main question through the light of later findings and by careful elimination and deduction.

I propose to present some conclusions which to me seem incontrovertible. Yet they are sure to be disputed, for there are temperaments ready to "go agin'" anything new, but I will promise in the happiest

sporting spirit that the best and worst of critics will find some difficulty in formulating rebutting evidence.

Darwin noted that certain birds and animals in domestication often changed in character much more rapidly than similar kinds in the wild.

My work, more than forty years after Darwin's, serves to show that fantail and pouter pigeons respectively—to pick out the best illustrative examples—have a neurone central mechanism which not only responds to outside affects causing reflexes, but from these reflexes spring inflexes to effects, causing the tail to fan and the neck to pout.

Now what has caused these fanning and pouting functions to develop from the common pigeon? My answer is that domestication has involved more or less confinement in closer quarters than in the wild, which has led to ease and leisure, while the stimulus of feeding generously, with little exercise taken, has caused increased sexual habit. The latter has led to extra spread of tail and pout of neck through increase of reflex and inflex, while in positive circling the fanning and pouting have favoured attraction and the increase of sexual habit, to make the trend of variation all the quicker and certain. In case it might be supposed that all birds and animals would be equally likely to produce variations in domestication, I must point out that pigeons have shown themselves specially prone to exhibit variations, probably because they are more demonstrative in love-making than other birds in captivity.

Thus a study of artificial selection, where changes are hastened by certain modifications being paired

with the like, making offspring that exhibits similar modifications, helps us to realise what has taken place under natural selection. We are bound to note the probability that what has occurred rapidly in the one under our very eyes has also taken place in the other very slowly over a vast number of years.

Fanning and pouting prove not only inheritance of particular acquirements, but also neuronal extensions from reflexes which cause muscular developments and movements. Thus we are not only fortified fully in our belief that there could be no such inheritance without neuronal development, but we see clearly that the interactional theory gives us an easier understanding of this development.

In case any critic should wish to try conclusions over the word acquirement, I had better declare straightway that there is no difference in mechanism between the various ways of acquiring—no difference in the physiological processes involved. Incidental variations are acquirements either originated by some known special excitation of environment (*e.g.* sexual), or they may be due to an unknown influence; they are acquirements for the purposes of our main argument, however they have been brought about.

How the sharp lines of distinction between definite species have come about will be far better understood from the following study of circling taken from my manual of instruction (*New Era Psychology*), published privately in 1921, which particularly deals with methods of training disordered nerve and thought systems.

THE CIRCLING PROCESS

For something more than a decade the expression "Vicious Circle" has been applied to processes which are mutually operative, or interacting. A common example is worry causing indigestion, when indigestion, in turn, causes more worry. Another familiar instance is when high wages cause higher prices, and high prices make demands for higher wages.

In pursuing psychological investigations into interactive circling, as being imperative in the study of psychology generally, I found that not only is the process of paramount importance to all thinkers, especially biologists, medical scientists, and sociologists, but a right conception of the very opposite at once seemed to be just as necessary if the real nature of some of our most familiar and fundamental phenomena were to be understood.

On finding that it was quite as important to recognise the very opposite of the vicious circle, I felt obliged to adopt new terms. I chose to call vicious circling by the name negative circling; its opposite, that is favourable, I termed positive circling. I felt bound to recognise equally clearly that happiness helped digestion and that good digestion helped happiness.

But a much more interesting conclusion was to come, namely, an answer to the question: Why should there be this very definite and powerful interaction in nature? For it is so very common—so frequently seen in all sorts of phenomena. Indeed, there can hardly be a physiological or even psychological

process without it. In searching for an answer, one could scarcely avoid recalling the teachings of Darwin as regards "Survival of the Fittest."

Is it not quite clear to us that this process of reciprocal action, or developmental interaction, has the effect of emphasising or increasing differentiation with a view to securing variation? Once a balance is upset—it may be by an unknown influence one way or another—we have in this circling process a doubling of forces either way.

Having many years ago found the laws that *Negatives tend to beget Negatives and Positives Positives*, in physiological and psychological activities, the purpose for which they operate now seems to be clear.

These laws help us to understand far better the formation and persistency of variations of all kinds, right up to the point of "breeding true." We can also readily see why variations are often very difficult to alter; it is not easy to worry less when indigestion is present; it is not easy to lessen either wages or high prices. Nevertheless, this should by no means dishearten anybody. If sufficiently strong efforts are made in wise direction as against *both* interacting evils—or all, if there are more than two, as there usually are—the whole correction of negative to positive can be accomplished in the great majority of cases.

Any reader going carefully over the pages of *Advanced Suggestion*, will find that there gradually comes into view the root biological explanation for evolutionary structural changes; that certain acquired characters are transmitted, and that varia-

tions and mutations depend upon the effect of environment—upon environmental influences upon neurones. Some scientists have recently considered that the endocrine glands have primarily governed variations, but long ago I pointed out that neurones have first affected glands, before ever glands affected neurones—from the most elementary cell agglomerations onwards. I contend that it was neuronal behaviour and influence that first *fashioned* the glandular elements.

There could be no better reason found why just everything in nature is constituted in variations, as a rule, than that *progress is intended through inheritance of acquired characters*. And so that the great purpose—the making of progress—may be the better understood, and so that the most perfect provision for it may be deeply realised, I have only to draw attention to M. Charles Richet's recent work—though to differ with him entirely as to his conclusions. His very errors serve to emphasise my points; they are useful, for it is mainly through mistakes that nearly all kinds of accuracies are arrived at. He set out to find regularity, but he unwittingly taught us how impossible it was to find dependable rhythm in nature. His experiments and conclusions regarding human functional time measurements have been referred to in a contribution to *The Times* of Jan. 31, 1922.

Those who consider that psychology has greatly advanced recently in Great Britain will feel obliged to disagree with his findings, which are based upon an entirely erroneous conception as to the nature and limitations of volition. He has “suggested to the

French Academy of Sciences that there may be a measurable psychological unit of time, a maximum rate per second at which thought can vibrate." He has taken a familiar sentence of sixteen syllables "as distinct exercises of volition," and has tried to measure their maximum frequency in a minute of time by getting various people to repeat the sentence over and over again. Thus he has found that "the average was 740 syllables in a minute."

He has concluded, therefore, "that the maximum number of elementary thoughts or acts of volition is 12.5 to a second," and that thought "can vibrate about twelve times in a second . . . as a psychological fact" from which we may standardise time.

The real fact is that syllables of sentences oft repeated are not examples of separate volition at all; they are examples of autonomous actions, which, of course, have merely been first founded by volition. Repeating sentences is thus in exactly the same category as swinging dumbbells, playing the piano, and writing; all these are autonomous acts which have been volitionally and carefully learnt.

They are undoubtedly brain-cell acts, but they are not acts of volition. Repetition has made them for the most part independent of the originally constructive volition. Moreover, being autonomous acts, they are as sure to vary in different individuals as will any kind of mental or muscular capability—to mention only two, memory and piano-playing dexterity.

When the rapidity of a blow of the fist upon an object made for testing, such as Dalton's machine in the anthropometrical laboratory at South Kensington,

has been found to vary from 16 feet to 22 feet per second, while the trained fighter, Carpentier, can strike a blow as fast as 88 feet per second, even allowing for any reasonable amount of errors in testing, we can at once realise that the smaller repeated muscular efforts of speech must vary very greatly in rapidity, whether they be truly voluntary or purely automatic.

It follows that all the further conclusions which M. Richet has found, from the particular experiments, are useless, excepting that they serve very eloquently to impress upon us the great necessity for a much wider knowledge of that psychology which has been advanced in Great Britain, and which M. Richet is not aware of.

There can be no sufficiently accurate time measurement of muscular movement from which we can derive a standard. The intention of the Creator was to fashion differences in everything. No two tangible things can be found alike in the whole of natural structure, and therefore no two natural functions. Twins are quite unlike one another; but an easier proof is to be found in the leaves of trees, no two of which can ever be found exactly alike.

It is out of this universal scheme of differences that progress evolves, nature abhorring a sameness as studiously as a vacuum—being lavishly provident as regards variety, and shrewdly economic as regards space. Those who attempt to study nature are only mocked and misled if they imagine that they can find departure from this differential rule—the only tangible rule, so far as I can see, that has no exception. I have never been able to find exception in searching a lifetime. People may imagine that many vegetable

seeds are exactly alike ; but the grown plants from them will prove that they never were.

Thus it is borne in upon us that, on the one hand, we have the most perfect provision for survival of the fittest in variations being the great rule of creation, without any chance of exception ; and, on the other hand, we have facts which nobody can now escape from—however astutely arguments may be searched for and levelled against them—proving not only that acquired characters are inheritable, but that in the neuronal element lies the secret of inheritance of acquired characters—where impulses take place, which, according to recent researches made in order to discover the constitution of matter, are most likely of an electric nature.

We should expect that “breeding true” is exemplified under natural selection better than under artificial selection. In the former, length of time and the operations of positive circling have been more firmly and roundly definitive. Reversions “to type” are bound to be commoner over a short period amongst domesticated changes than during the thousands of years occupied by natural influences : variations are sooner made in domestication, and therefore less easily kept. We must never forget, also, that human beings are animals under domestication, in the evolutionary sense in which Darwin used the word domestication : much difficulty has arisen in the past, in studying inheritance, through forgetting this fact.

Accentuation and furtherance of differentiation have therefore been brought about by multiplication in the process of “circling,” according to the above

laws. For example, the erect posture has permitted increase in capability, which increase has been transmitted to accentuate the erect posture. Bipedal came to mark itself more definitely from quadrupedal because of the law that more affect makes more effect, and *vice versa*. Animate process is never a single affair: the burning of inanimate material makes inorganic material. But there is no such thing known as inorganic remaking organic structure. Amongst living things we find that man can make conditions which help to strengthen man, and that a giraffe can reach high for food to secure a kind of life that makes more giraffes.

While organic positive circling exists in order to secure progress, inanimate things can never progress, because they can exhibit no structural variations to permit progress through ultimately making species distinct—once variations have given effect which in turn affects. Finally, the fittest species survive according as they compete with other species *en masse*.

The better adaptation to environment, the stronger physically; therefore the better will procurement be; the stronger the issue the better will be its adaptation to environment.

In my opinion the power of scent has acted as effectually in natural selection as anything else. In animals below apes the power of scent is enormous—roughly gaugable according to comparative length of nose. The erect posture shortened the nose, for other tremendous advantages obtained by the erect posture—four, or five (tail), prehensile limbs, for example—permitted more, and finer, movements, and

brain developments. It is interesting to note that the longer the nose of apes the more do they tend to "herd" for safety in the hills, *e.g.* baboons. Power of scent came in greatly in horned animals, which differ in structure very little in most respects. Gorillas and man do not "herd" like deer or baboons.

Increase in physical capability came to include the development of huge olfactory organs because searching for mates required this means of distinguishing them—even more perhaps than it required horns for fighting. Large olfactory organs are also a help in finding food. I am of opinion, after years of particular study of the question, that it is powers of scent and hearing in birds that afford practically their whole capability for migrating—nine-tenths, say—vision making up the one-tenth when comparatively close to a goal.

I have only referred to three particular powers in positive circling that make for origin of species, those of muscle, brain, and olfactory organs. These three have been the chief arcs of the circling; but it is more than likely that definiteness and speed in evolution have been greatly multiplied by yet other forces than these. We can well imagine many minor forces to have been operative: such as shape, giving speed and attractiveness, in addition to height and weight; colour, offering both distinctiveness and attractiveness.

It will thus be realised that the making of multiples must result in clear demarcation in quick time, in comparison with what would be expected from just one departure—from one effect making no return affect.

THE CORRECTNESS OF DARWINISM

There are two outstanding proofs that Darwin was right in his main theories. The first is those changes in structure that are going on now, and that have taken place all along, as shown by the effects which brain impressions of parents have upon progeny—however minute; the second is the discovery of circling and its meaning, which is the return influence created by reaction on action. When it is realised that increase of potentiality in a developmental direction takes place by geometrical progression, that is, by the multiplication of forces according as every fresh one is generated, then the great spaces between species are at once accounted for, enabling us to conclude that each species came from another in a once continuous chain.

For example, the higher the neck of the giraffe extended, the stronger became the general musculature, which latter further permitted a multiplication of forces separating it from those examples not exhibiting this tendency to positive departure from the standard in length of neck.

Emotion is the biggest builder of variety. Thus the neck became the chief departure in the giraffe because of the keen excitement of reaching, which produced deftness of moving the head and neck. The hind legs of the kangaroo became large through variation in leg muscles, while leaping was at the same time selected instead of all-fours progression.

Height of trees in abundance, and drought of ground, gave environmental variations that made the giraffe; while the shorter shrub growth in patches of Australia

caused not so high a reaching but a necessity for the kangaroo to jump from one bush to another without coming down too often from its head altitude ; yet both the giraffe and the kangaroo can bring their heads to the ground to eat or drink when they wish.

Similarly, comparatively recently in evolution we have obtained such specimens as the bull-dog, once selected for fighting, and having massive head, jaws, and shoulders ; also we have the Sealyham, good for fighting foxes in burrows in the ground ; tame animals being so much more ready to vary both on account of their rapidly altering environments and the uses for which they are required by man.

CHAPTER VI

PULMONARY CONSUMPTION

SUCH judgment as springs from the common sense of the layman is bound to go a long way towards fortifying the medical profession to grapple with the problems of causation and cure of a very common disease, consumption: it amounts to an economic law, that when the public reaches satisfaction the medical profession is bound to develop greater acumen and confidence—and *vice versa*. Here I write very particularly for both classes of people.

It has been declared by those in authority that sanatorium treatment for consumption—the most extensive form of treatment ever adopted—has failed to constitute a satisfactory means of cure. I shall endeavour to point out why it has failed, and indicate what appear to be the most promising lines of procedure for the future.

The fact has long ago been established that we need not fear so much the organisms of consumption, for they are everywhere. It amounts to a truism that they will only attack certain people. Therefore it is the soil which needs our chief study. I have closely investigated instances such as this: A young man for two years occupied the same bed with his consumptive brother in a small, badly ventilated

room. Though the brother had been all this time actually in the virulent stage, as clearly shown in the carefully taken history of the case, and died at the end of the two years, during which time there was careless expectoration on the bedclothes and elsewhere in the room, without any means whatever of proper antiseptic cleansing, yet the one who was well in health, and who kept so by means which were mainly in the cheerfully athletic and Sandowistic category, remains so to this day after forty years. There are many instances of this kind which show clearly that where the soil is sound, vital, and resistive, tubercular disease will not attack it. There are, moreover, examples without number which indicate that a soil favourable to the disease has been, and therefore can be, made into a healthy—unfavourable one for the bacilli—by “certain means”—chiefly by some turn of events which has brought ease of mind—improvement in spirits, shall we call it?—healthier conditions of living, acting in positive circling.

Still greater proof exists in the number of people who have been attacked and who have soon recovered spontaneously—statistics having been compiled as accurately as possible to be conclusive and very significant—without anything having been known of the incidence until *post-mortem* examination for diagnostic purposes, following death from other causes, has brought to light evidences of lung disease that *had once been there* but that had in time somehow become cured. Undoubtedly in some of the cases the individuals have just happened accidentally on just that happy turn of events in their earlier career

which has increased vitality, improved the outlook, and forbidden the disease to develop any further.

In studying the nature of treatments which have been successful in curing certain cases of consumption, I have observed, so conclusively as to render the phenomenon to be considered a virtual law, that some sort of hopeful happiness as to the future (not the misleading *spes phthisica* really begotten of chronic despair—the false hope of the consumptive—which is quite another thing) conduces to cure as much as anything. Therefore routine and habits that encourage this feeling come to be of the first importance for our consideration. It is not so much a rigid routine of open windows and good food which gives good effects; cure finally depends upon whether these means, and others previously referred to, help in producing a happier state of feeling—of mind. Some sort of congenial employment is likely to engender a helpful spirit.

That favourable surroundings alone cannot be the chief desideratum is very well indicated by the many puzzling instances which have occurred of some of the best athletes (prize-winners), soldiers, sailors, and dwellers in farmhouses in the country, who have died from a rapid form of the disease. The nervous or mental factor is thus forced upon us as being most important in our broad consideration. I have found in a close study of such instances that the temperament has been highly sensitive, much inclined to strenuousness, and given to fits of depression when accomplishment has not been wholly satisfying.

It is impossible to understand the causation of consumption properly without observing the very

important process of physiological reciprocity, not only as a scientific object lesson, but as a factor in common-sense reasoning, a process which I have explained in previous chapters as positive circling. If food helps towards happiness, then happiness also helps towards good digestion and increases the benefits to be derived from food. Now, feeling better conduces to happiness, and this helps towards getting further better. This positive process, again, is the opposite of vicious or negative circling where bad food causes depression of spirits; the latter produces indigestion which minimises the benefits to be derived from any kind of food. It is obvious, therefore, that a stronger sense of potential vitality should be encouraged—in the full belief that it is there if we can only elicit it.

It was long ago observed by scientists that the digestive powers of consumptives were usually very poor. Big books have been written in the past upon this particular feature alone. My own researches have proved that the cause of this indigestion in certainly well over 75 per cent. of cases has been depressed spirits.

Let us now study the question of vitality from a very purposive angle. What is it that helps at once, more than anything, to tone up the mental spirits and to bring about enhanced vitality? It is surely to be found in the physiological process of breathing. Our first question for the moment must therefore be, What really is vitality? This is best answered by imagining what would happen if either the heart or the lungs worked badly: it must be concluded that vitality is produced by the

air we breathe ; but in human beings it is impossible to leave out of account the fact that vitality also depends immensely upon the thoughts and emotions—upon the general nervous system. If the blood is of poor quality the heart is weak ; the brain is weak ; everything works weakly. If the air breathed is of poor quality the whole system must suffer. The blood becomes poor in quality when the amount of air taken in by breathing is not exhilarating enough. We are now studying also preventive medicine.

It is not sufficient for us to decide that one of the first factors in maintaining vitality is the amount or kind of air we breathe : we should rather consider that it is positive circling which secures a healthy vitality, and that this is constituted of happy ideas co-operating with the taking in of enough good food as well as oxygen of the air. Then, again, it is clear that the amount of oxygen will depend not only upon purity of air, but also distinctly upon breathing capacity—that is, upon the amount of muscular and other physiological work done by the whole respiratory mechanism as well as by the lungs themselves.

Our first physically vital necessity is therefore a pair of lungs which will act well. Why should not all lungs act well ? Because the mental and physical conditions of life may cause the muscles of breathing to be either poorly developed or temporarily weak, through causes which will certainly include want of exercise. If we examine typical examples of healthy, lusty athletes on the one hand, and pale, puny, sickly looking sedentary employées on the other, we shall find that the former take good deep inspirations as a habit, through training, while the

latter exhibit shallow breathing; the former have strong muscles through being obliged to exercise their lungs, because the pleasure of it alone entails this; the latter probably never play games which require increased breathing, being employed in occupations that depress the spirits and cramp the chest.

“Early diagnosis is wanted, above all,” say the administrative authorities. How shall we find the cases soon enough to be able to check the disease before it has gone too far? This is an important question asked by those who are concerned with the vitality of the nation—with the public health and physical fitness of the million, for either war or peace. Surface measuring is a method which has been deemed to be sufficient by some in the past. Height, chest measurement, and weight have been taken; but these have been found to be ridiculously misleading. A fat man with an enormous chest measurement is usually very unfit for exertion, while a thin, light runner will have vitality enough to do a Marathon distance, provided his chest capacity is good.

It is clear, then, that measurement of chest capacity should be the first means of judging physical fitness. Height and weight no more indicate physical power than size of the head affords proof of intelligence: it is now well known that mental capability depends not upon the mere size of the brain, but upon the way in which its cells, massed in convolutions, act: the mental as well as the physical vitality of quite a small man in stature may be very great.

And what is the lesson? In future the exercise of lung power will become a prime duty for all those

who do not show a normal, healthy breathing capacity. Every person, whether ill or well, should learn what their capacity is; deficiency will immediately point the advisability of employing the best of all natural remedies. There comes into full view therefore the very first diagnostic means for distinguishing consumption at an early stage, namely, the measurement of chest capacity.

Abnormally low breathing capacity will indicate either danger impending, or that actual disease has just started. The belief is fast gaining ground that the pleasantest and most important—as well as the easiest—of all healthy exercises is the training of the lungs to do the best that can be got out of them.

Exercises of most kinds make people feel happy because they are actually felt and known to be healthy. Sanatorium treatment having failed, in my opinion chiefly because there have not been fine enough individual adjustments towards making the mind happy and hopeful, I would recommend that in future the temperament and worry history of each patient should be most carefully judged, so that treatment may be applied with that amount of special consideration which is likely to produce a sense of returning vitality in the mind as well as actual feelings of recovering vigour in the body.

While admitting that manual work prescribed for consumptives, or those threatened with the disease, may of itself cause them to breathe more deeply, it is clear that the work must be interesting or it will create the very opposite mood to that cheerfulness which we know is so absolutely necessary for good digestion—and which so greatly determines vitality.

A PARTICULAR STUDY OF TUBERCULAR DISEASE

The number of people living who suffer from deformed spines is very large—having regard for the very serious nature of the disorder—they are due usually to tubercular disease of some of the bones of the spine.

Short in stature, obviously living under great disadvantages, cramped as to the chest, often rather thin and ill-looking, such people have been, to me, for many years one of the greatest mysteries that could be encountered in medical life.

Here we have a little people battling with life's difficulties heroically, and even smilingly as a rule, under conditions which one would imagine were threatening an early if not sometimes a sudden death. They appear, even to the casual observer, to possess a deformed spine, when quite a lump indicates an angle of broken-down bone. In fact such sufferers actually possess a spine which has been so diseased that it has failed to hold normally; it has "given way" at the spot, because vertebral sections have become partially destroyed. All such have clearly a spinal column that has become so weak that it would not remain in a normally straight position.

And yet so many of these people seem able to go on living, most of them to enjoy life, and many even to earn their living by hard work!

Such studies cannot fail to be interesting. They are scientifically very important. They are at first mystifying, and by the very contradictory character of their "make-up" they constitute very valuable material for our analysis; for it is by studying

difficult problems of the kind that we move further along the paths making for full knowledge generally.

Let us examine this problem, therefore, as one that must be most captivating for all health enthusiasts.

We have before us an instance of grave disease, usually tubercular, which has attacked the spinal column of vertebræ. Could there be anything more likely to upset not only the shape and form, but the various internal mechanisms and physiological processes?

First, of course, there is pain and disability as regards movements, necessitating keeping still, and sometimes even a rigid fixture by means of apparatus—at one time it is expensively mechanical, at another it may be in the form of a complete envelopment of a close and rigidly fitting plaster of Paris jacket. But all this by the way.

What we should study most is the recovery and the span of life which these wonderful little people reach, when the activity of the disease stops and they are left with a pronounced deformity which doubles them up and cramps particularly the lungs, rendering them individually about the most fragile specimens of survival it is possible for us to look upon.

After tubercular disease has excavated a spinal vertebra, and led to all but a complete break in the bony continuity of the backbone, would it not seem certain that cramped lungs, being pressed down by a doubling up of the upper on to the lower half of the body, would cause disease of the lungs of a certainty?

Yet these people happen on repair locally, in the spine—though never to straightness and full strength, because some bone is destroyed—and on repair generally, yet are often able to enjoy life thoroughly.

Many times they will outlive stronger and healthier made people.

What is the explanation of this form of remarkable recovery from disability and disease, and yet more remarkable survival, under an exceptionally severe handicap of defective conformation of bone support that for ever after obtains ?

The answer is, that the first illness has led to conditions of living which have acted as a contrast to what went on before the disease set in, for if the same conditions went on which caused it then the continuance of it would be certain until early death. Recognition of the disease, therefore, has led to methods being adopted that were likely to put a stop to the disease. What have been the methods ?

Was it diet, medicine, or rest ? Probably all three. Doubtless all three. Then we should conclude that the general tone of the system had been low before the attack. But sometimes it may be that the diet has not been poor before the attack. In this case the system must have been low in tone, while rest and medicines advised have led to a partial cure and prolongation of life.

But now let us inquire what it is that keeps such people well and happy for years after active disease of the bone has ceased. It cannot be costly dieting, for I know they have not all received this. Yet most have undoubtedly received an improved balance of nourishment. How can they go on apparently in the best of health for years with their chests and lungs cramped ? We are bound to ask the question, if we are real scientists, in the face of the fact that we have abundant proof that full chested breathing

seems to be an ordinary essential. We are compelled to argue that if breathing is limited in the well-formed, then phthisis is likely to be the result, yet so many with tubercular curvature and cramped lungs go on, year after year, and do not get phthisis. There must be thousands of them throughout Great Britain. I am quite sure that a few of them do develop phthisis eventually, but how they can live more than a year or two possessing such defective mechanism passes the wit of man or woman to understand, unless one dips more deeply than usual for solutions of the problem.

It is most important that we find some solution, for if we can it will surely help us in our general consideration of cause and effect. If we can say why an individual can live with spine broken from disease, and with lungs so confined in a small space that it would seem almost impossible for them to expand at all; also if we observe that indeed the breathing is quick and shallow all the time, then we may bring into view the prime causation of phthisis.

Here we have distinctions for clear comparison. We have the lungs of one spinally diseased and deformed from tubercle, and having a lung space that is diminished in consequence—here are all the favourable factors we could find, as we believe, for phthisis, and we get no phthisis, on the one hand; while, on the other hand, we know that many people who are well built, who have been exceptionally athletic, who have lived on the sea, in the army, or on farms, nevertheless develop phthisis.

The pathologists cannot say that the bacillus of tubercle has been nurtured by the consumptive and leave out of account that the spinal case has also been

subject to tubercle. Nor can we conclude at any time that some people encounter the bacillus and some do not. Even Dr. Leonard Hill, who has made so much of the danger of people passing tubercle to others, must allow that scientists before him have truly declared that the bacillus is everywhere, and that post-mortems show most people to have had a "touch" of tubercle of the lungs at some time or other in their lives—which they have spontaneously recovered from and which nobody had ever been aware of during life.

Therefore what is it that gives us one of the most devastating diseases ever known to man? Why have we not found a cure?

The answer to the latter question is the aforetime failure to correctly answer the former. We shall never find the latter until we do comprehend more nearly the former. Authorities are still going on experimenting with anti-tubercular injections. Nor can they be altogether blamed for this, provided they are broad enough in their quest for true causation, excepting that probably the energy directed against the bacillus causes workers to become less acute in their reckonings regarding causation: studying the cart too much may prevent knowledge being obtained regarding the qualities of the horse.

Scientists have repeatedly rung the advisory peal that preventive medicine needs more consideration. Is not this cry a sound one when we bear in mind all the data above, and having regard for the unalterable and equally well-known fact that it is the soil of disease which makes disease possible?

In spinal tubercular disease it is unquestionably the soil being altered that stays the ravages of the

bacillus, and it is this soil which resists tubercle of the lungs long after the vertebræ have ceased to break up.

I therefore cancel down and make deduction from the above data. I consider that it is a defective quality of the blood that constitutes the essential soil for both tubercle of bone and of the lungs ; that an improved hygiene checks the bacillus in both regions ; that it is the blood that needs our very first attention.

Now what has happened to the blood to make it suitable as a soil for tubercle ? And here I would remind those specialists who have agreed amongst themselves that tubercle invasion of bone or intestinal tract has originated through the ingestion of contaminated milk, that it has been the soil which decided the incidence, for otherwise more children would have suffered from contaminated milk. Though I am an advocate second to none in enthusiasm for a purer supply of milk for young and old, yet as a common-sense pathologist, and no more, I cannot allow that the question of soil should be left for a single moment. What happens, then, to the soil to make it favourable for disease ?

My answer is, that a defective digestion, through loss of tone, has favoured a neurasthenia. I come to this conclusion because I have found that the chief cause of all dyspepsias is psychasthenia, which is the first cause of neurasthenia ; once the one is created the other is provoked in negative circling. Psychasthenia thus makes loss of tone through dyspepsia, while dyspepsia makes psychasthenia.

I am of opinion that when tubercular disease of the spine has stopped the blood has been improved by general hygienic measures, including rest to both body and mind consequent on definite diagnosis and

directions given by the attending medical adviser who has been called in when the seriousness of parents had been aroused. It is particularly the rest which has helped towards better digestion. Similarly, in tubercular disease of the lungs of so many who have recovered at an early stage, it has been the improved digestion brought about in some way that has resulted in better blood being opposed to the bacillus.

In the case of well-built people, including athletes, it has been psychasthenia *plus* an overstrained mechanism that has produced dyspepsia, aided by the toxins of fatigue—which themselves are largely supplemented by a depressed mood. Many athletes are inclined to depression of spirits, as a swing back from their great exaltation of energies. Training makes the majority of athletes learn how to lose complacently; but sustained over-ambition tunes the nervous system of certain ones to a very high pitch, over long periods sometimes, and once a downward tendency is felt in the results of contests this may be taken very deeply “to heart”; sometimes a very rapid negative circling lands such victims into “galloping consumption.”

It follows that the first of all treatments against tubercle anywhere in the system should be directed against “depressed spirits”—whatever may have been the cause of the latter.

I have no hesitation in concluding that the chief factor in the very successful treatment adopted by the Treloar Hospital for Crippled Children, has been that which created happy feelings and consequently hearty and healthy digestions, in children who had been subject beforehand to the very opposite sort of life.

CHAPTER VII

PHYSICAL FITNESS

AMID the multifarious engagements of the human mind there are apt to enter not only strange ideas regarding development and what evolution will bring in the future, tending to upset smooth calculations as to the actual present, but there are also certain negligences that find their cancelling and damaging way into the general scheme of vital processes to be studied.

For instance, man has slowly evolved from the stage of advancement represented by the lower animals, through the higher animals, to having a bigger head and brain than any living creature that has previously inhabited this earth; and on account of his great learning powers he is apt to become at times dangerously unlike an animal as regards the natural ways of going on that support a good state of health.

He is apt to become too sedentary, too closely devoted to duties which he sets his concentrating mind upon. In other words, it is possible for man to become too little of an animal when he otherwise wishes to survive healthily. Diseases are commoner in man than in wild animals.

What happens when either a man or an animal is physically active in habits? The functions of the body take place in accordance with, and are attuned

to, the structure—which structure is befitting in its potentiality even to extremities of action that may be required of it. One of the most extraordinary God-given attributes of biological mechanism is that there is so much allowance made for exceptional strain, to meet dangers or emergency requirements. We are not born to fit into a particular place naturally and exactly ; we are to a very high degree plastic and mouldable—that is, trainable.

But with all the latitude and longitude that is possible there are variable limits, beyond which it may be fatal to extend our trials.

A heart will do so much work, but it will not stand more than a certain amount of extra strain.

It follows that we are expected to be to some extent active, so that our structures shall be duly exercised to the point of keeping them physiologically efficient. If we do not exercise these structures then our vital capacities generally will suffer.

Nor could we reasonably complain. If we are built for certain activities, and we choose to take no notice of the behests of the Great Maker, then we deserve to derive disadvantages. No prayers will prevent penalties. Man cannot contract out of the world-spinning prime direction of things, as clever as he may be to find and to translate into hundreds of languages and dialects the greatest book of all time up to the present.

There is this great point : we must never for a moment allow ourselves to feel one fraction cleverer than we are, or we may have the trap of fate spring its jaws painfully upon our unwary feet walking a difficult world.

We must take exercise or we shall surely suffer.

If we languish, then our hearts become lazy, our circulations through beautifully adaptable vessels will become abnormal, and the day will come when some strain of unexpected obligation will enter into the life to challenge an unpreparedness through neglect, and away we may go—not to have the same chance again, that has been so wonderfully and generously given.

There are three outstanding exercises which need the careful consideration of those who would wish to keep fit and equal to emergency strains: (*a*) That of the heart and blood-vessels, (*b*) that of the lungs, and (*c*) that of the mind. And the last is the most important, for it is through the understanding that due observance of the first and second will be possible.

The sedentary and little exercised individual is likely to develop blood-vessels unyielding to strain being put upon them. They are likely to become too rigid instead of gently adapting themselves to extra pressure.

All readers with common sense will understand this simple bit of physiology. Of all the structures of the body which are neglected too soon in life the blood-vessels seem to be the greatest sufferers. Containing the essential life fluid, channels branch from the great conduit leading from the heart to the minutest pin-point smallness of resilient extensions to the peripheral skin surface; it is highly necessary for this system of expansile and contractile distribution to be kept in good working order.

Now it will occur to the very plainest of thinkers that any exertion will accomplish an exercise of the blood-vessels, through serving to fill the myriad branches fuller, while a cessation of this exertion will allow them to contract again. If the vessels get none of such

exercise they become as rubber stored and unused—that “perishes”—that becomes not only ineffectual for its prime purpose, but risky as being liable to “give way.”

Arteries should be kept supple by some sort of muscular straining exercise, throughout life.

The best and simplest exercises are those which afford pleasure in the performance, whether of the character of work (profitable in three senses therefore) or play (profitable in two senses).

Supposing a person is not in a position to take ordinary exercises of any kind: I am giving this proposition in order to show that excuses for not taking exercise should be exceedingly difficult to find. Take an individual who is boxed up for hours in a porter's small office, or one who is travelling for hours, perhaps days, in a railway compartment; is he to be excused? What can he do?

He can exercise nearly all the muscles of his body even sitting on a seat, by straining them and compressing towards his centre, with the immediate result that he feels the blood driven to the surface; especially will this be obvious in the face. He will feel it; others may observe it slightly if they happen to be looking. But it is an important exercise, once a day, and a valuable one. Folding the arms and flexing the legs under the seat will help in the general energy of muscles. Practice a few times will make the effort easier and more definitely purposive.

Incidentally, this act will oftener than not prevent a chill from being contracted in abrupt changes of temperature. Resistive heat of blood is thereby driven to the surface instead of remaining concentrative and congestive to internal organs.

But out of sense comes further precautionary sense—which at this stage may spring forth naturally from any interested though perhaps entirely unscientific reader himself, however unfortunate or inexperienced he may consider himself to be through no fault of his own. It should be noted, without any diffidence whatsoever, that if an individual has neglected to exercise his blood-vessels for some years, while through this fact and perhaps the additional one of neglect to feed wisely (which has caused impure blood) the vessels have become to some extent *actually* “perished,” then to inflict undue strain upon them may be risky.

Old men should not recommence any severely straining exercises of any kind, after some years of abstaining from them, without consulting their medical adviser. If the arteries are hard they cannot get them really youthfully soft again. Old men with hard arteries must keep short of strains, and go along with such small energising as they have found to be safe.

Young men will not always know how far they may go in effecting strain. I never did believe in Marathon racing myself, even when as a boy I won prizes for other athletic performances.

No words of mine can sufficiently express the great value of active sports, such as football, hockey, polo, tennis, badminton, boxing, etc. etc. Which is a commonplace remark, but not enough to convince some people so egoistic and self-satisfied that they imagine themselves to be quite secure as regards specific performance of brain and body while they study books hard and leave all games to “flannelled fools.”

It is a law—in spite of wonderful exceptions sug-

gesting the contrary—that in order to work seriously well it is necessary to play well. Indeed, it is sound psychology. The best quality of thought-power is not that which is squeezed out of worried brains, but which comes forth from smiling, alert, resourceful countenances that show a capacity for exercising “play of thought,” after the manner of one who is prepared to argue just how very easy deep thinking can be.

So much for blood circulation and flow of thought. There remains for short further consideration the question of exercising the lungs.

At a special meeting of the Royal Society of Medicine held on Jan. 21, 1924, reference was made to a report issued by the Ministry of National Service upon the physical examination of men of military age. The report was “the most comprehensive survey that had yet been attempted on the health and physique of a large portion of the population.” Two and a half million examinations were carried out on men between the ages of eighteen and forty-five. Quoting from the report :

“As the result of this analysis the conclusions come to were that to every nine men of military age in Great Britain, on the average *three* were perfectly fit and healthy ; *two* were upon a definitely infirm plane of health and strength, whether from some disability or from some failure in development ; *three* were incapable of undergoing more than a very moderate degree of physical exertion, and could almost—in view of their age—with justice be described as physical wrecks, and the remaining man was a chronic invalid with a precarious hold on life.”

Air-Commodore David Munro has set forth in *The Lancet* of Jan. 26, 1924, the great value of such records and the methods of obtaining them :

“To the physical culture teachers . . . there were certain qualities capable of exact measurement, such as height, weight, and girth of chest. . . . But while physical qualities lent themselves to exact measurement, physical disabilities unfortunately did not.”

Therefore Dr. Munro strongly advocates an “Endurance Test.” The mercury of an instrument for testing the force must be blown up to 40 mm. to be maintained there without breathing for as long as possible, the pulse being counted in periods of five seconds during the performance of this test.

The average time of holding up the fluid at this height in a large number of cases tested was between fifty and sixty seconds. The pulse-rate should remain steady, or rise gradually, according to the time the breath is held. “A marked rise was unsatisfactory, and a still more unsatisfactory sign of cardio-motor instability was a marked rise during the second and third period of five seconds, followed by a dying away to normal or below normal. For the detailed physiological explanation of the phenomena of this test he would refer them to its inventor, Group-Captain Martin Flack. The factors involved were, as he understood them : (1) the state of oxygenation of the patient's blood ; (2) the state of his respiratory efficiency ; (3) the tone of his blood-vessels. Whatever was the actual physiological machinery functioning in this test, empirically it had proved of great value to the R.A.F. as an indication

of a man's capability for physical endurance. So far it had only been used for testing flying personnel, but he anticipated its general use in recruiting centres for all personnel at no very distant date. He also anticipated that a *U-tube manometer would in the future be as much a part of the equipment of a general practitioner as is a stethoscope.*"

Sir Arthur Keith considered that "Group-Captain Flack's work marked a great advance in methods of examination upon anything hitherto done in any country."

"Professor G. Dreyer of Oxford has recently continued the investigation into the normal vital capacity of man, bringing it into relation with the size of the body. Professor Dreyer correlated vital capacity with other physical measurements, with a view to obtaining a working guide to physical fitness under different conditions and in different classes of individuals. Formulæ were evolved to define the relationships between vital capacity, body surface, body weight, trunk length, and chest circumference. In association with Dr. L. S. T. Burrell, it was demonstrated that in pulmonary tuberculosis there was a definite decrease in vital capacity from the normal for the individual of that occupation and mode of life. Improvement in the clinical condition was found to be accompanied by an increased vital capacity which might be used to measure the benefit received from treatment. Several papers have appeared since, confirming the value of vital capacity estimation in diagnosis, prognosis, and treatment."

Commander Martin Flack (Royal Air Force) has further pointed out that if a man made expiration straightway, unhindered, into an empty thin rubber

bag which offered practically no resistance to the entry of the air, and this amount were measured by its displacing fluid from a graduated bottle, a fair measure of the capacity of the lung would be obtained. Now when an expiration is passed through an instrument it meets with resistance that varies greatly according to the nature of the instrument. It follows that (*a*) this instrument should be invariable in its action, which it can hardly ever be when it possesses wheels or intricate mechanism to be affected by friction and moisture; and (*b*) the amount of resistance had better be a minimum that is calculable and that can be compensated for.

The Vitameter presents this minimum of resistance, through a simplicity of structure that neither friction nor moisture can vitiate, even after being used for months on end. And its true action can be quickly tested any moment by means of a common watch. Whatever minimum resistance to the lungs which the Vitameter presents to expiration is calculated and allowed for in the scaling. Thus it is the most reliable pocket instrument that is procurable for testing breathing power, and by far the cheapest, because the simplest, smallest, easiest to use and to keep in order.

It will be clearly seen by medical men that the Vitameter Outfit constitutes the readiest and surest instrumentation for the diagnosis of any deficiency disease or functional disability of the lungs; on the other hand, exercise of the breathing musculature must be the safest and most certain preventive of either chest disease or defect of chest functioning that we at present command, given food and environment suffi-

ciently favourable for maintaining health. Nothing can be more quickly indicative of vitality and general physical power than testing chest capacity and force by means of these instruments ; breathing exercises are also of superlative value in any physical training, especially when the results of the exercises can be easily measured from time to time.

The measurement of vitality therefore constitutes an advancement in procedure which will be taken advantage of eagerly by progressive medical men, who have for so long hoped that improvements in instrumentation might be made.

Interest regarding the physiology of the chest grows as the value of making observation becomes increasingly apparent. For instance, it is found by athletes that breathing capacity and force vary to some extent in an individual during the day according to meal-times. Above all, it has been found that in the slightest pathological threat of damage, as in pleurisy or phthisis or pneumonia, or even on recovery from such, when defective function needs restoration, there is a most distinct drop recorded by the Vitameter.

The most important study of diaphragm breathing, rendered more interesting lately because of the exercise of abdominal contents found to be so greatly helpful in the correction of stasis, now becomes imperative ; indeed, it is synchronous with the new convenient and cheap means of measuring amounts now available.

The Vitameter Outfit is sold by Stephen Matthews & Co. Ltd., 19 Farringdon Street, London, E.C. 4.

CHAPTER VIII

A STUDY OF CONSTIPATION AND HÆMORRHOIDS

I DESIRE firstly to emphasise the importance of due consideration being given to the great part which the diaphragm can play in influencing human health. Through a knowledge of the potentialities of this muscle it has been found that we can alleviate the common severities of abnormal functioning of the abdominal contents to a very considerable extent.

It is the erect posture of man which contributes to his being more liable to constipation than animals that move on all-fours and have their body axis horizontal. On first thought the latter might seem to be the more disadvantageous; it might appear that the walking-erect posture would conduce to an abdominal bearing down that facilitated functioning through gravity. On second thoughts, however, it will be appreciated as probably a newly pointed-out fact that it is this very gravity that has caused extra basic resistance, the perineal muscles having found need for being particularly developed and exercised in order to afford extra support. Yet, in spite of this, human females suffer from prolapse of both passages

more than do animals, owing to occasional damage in childbirth but sometimes to debility or lack of muscular exercise. It is the horizontal posture of animals that so greatly favours a forward bearing of abdominal contents, away from the perineum should it be damaged. In humans the very reverse obtains. Even if an animal were ill and muscularly weak, the horizontal posture would allow gravity forward to ease the perineum, and not pressure down into it. When lying down a human being also derives this ease.

It is now common knowledge that anæmia used to be very common in girls at the time of puberty, until the last decade during which there has been a very noteworthy decline. The cause for this has been difficult to find. I have scientific reason for believing, however, that in past years girls used commonly to receive a shock at puberty through lack of information; painful surprise sometimes caused glandular action to be suppressed; while in quite recent years they have been much better informed and more independent in spirit, which has rendered physiological functioning freer, apart from the fact that the medicinal agencies which have been employed have been of a quicker acting and more deeply effecting character.

In order that some important therapeutic recommendations may be offered, it is further necessary to observe that the diaphragm muscle can be located; it can easily be identifiable and commandable, so that it can not only move for respiration, but prove that it is possible for it to be the sole muscle of respiration. In other words, the thorough and

complete action of this muscle can be appreciated as a recognisable, normal, and easy functioning. It can even move at will without respiration taking place. The latter advantage is quite easy to discover in individual experience, and to demonstrate to anybody having ordinary powers of observation and understanding.

Having found that the diaphragm is a muscle quite easy to command, and that it will not only enable a person to breathe by itself—the upper rib exercise for respiration being quite in abeyance meanwhile—but that it will act apart from respiratory requirements without any more difficulty than any other muscle of the body can act if desirable; it will then be noted that its action, being an upward and downward one, has the effect of moving the organs above it and below it; more obviously below it on account of the yielding and mobility of the front abdominal wall. Movement above it can never be so great because of the close packing of the liver, heart, and lungs.

Elevation of the diaphragm releases tension within the abdomen, but it can also cause retraction of its front wall, while depression, alternatively, creates tension and protrusion of the abdominal wall. In this way the contents of the abdomen are moved; they are stirred and exercised, as in a rubber bag the walls of which are to a great extent elastic and resilient; the contents are subject to a considerable amount of disturbance according to the frequent rhythmic repetition of the movement.

Now comes a very important recommendation. On account of the extra resistance to freedom which

the musculature of, and around, the perineum exercises in the erect posture, our object should be to obtain greater perineal freedom in order to allow facile functioning on most important occasions of daily evacuation, and yet to maintain the greater support at all other times. The best therapeutic time for exercising the diaphragm, abdominal wall, and contents of the abdomen is when the perineal and anal musculature is relaxed, namely, when efforts are being made to defecate. It will then be found that a few actions of the diaphragm not only move the abdominal contents but they afford a very distinct sense of bearing down right through to the anal orifice. In this way a hesitating or delaying evacuation can be helped to be more prompt. By this means material in the bowels can often be felt to be moving, though it had seemed that this was impossible but a few seconds before.

Moreover, it is of scientific interest that human beings are subject to more or less tension of the perineal muscles on account of the common necessity they find for avoiding leakage of flatus; which tension means a daily exercise and development of the resistive muscles. It is more than likely that this extra muscular security contributes to resistance and obstinacy on the part of musculature in parturition.

But the above recommendation is carried to further definitive evaluation by the realisation that if, after evacuation, a few movements (half a dozen or more) of the diaphragm are made, this has the effect of promoting a future movement even the next day and therefore every day following the daily exercise.

Those who find that a movement of the bowels

does not take place after a few exercises of the diaphragm—when a movement is due—are suffering from a form of sluggishness which may perhaps need some medicinal aid for a time, to be reduced when the daily exercise of the diaphragm has begun to contribute to the facility.

Ptosis, or “sagging” of the intestines, is a condition which takes place after years of constipation and debility; it may be so severe as to require more than diaphragm exercise. Intestinal stasis, as a chronic infirmity, may even need operation. After years of suffering have brought about such deformity of arrangement as must make difficulty even when medicines are taken by the mouth, aided by enemas, an operation would seem to be the only means left.

The question of dieting is one which is well worth studying, though it is a fact that some people are free in the action of their bowels no matter what they may feed on, even if they never take fruit or vegetables; but this does not disallow the equally cogent argument that many people have found that eating fruit, vegetables, and whole-meal bread make their bowels more relaxed.

Hence the complementary argument regarding food is, that fruit and vegetables should be taken; but one must not imagine that these alone will at once cure all cases of constipation. I have known people feed solely upon fruit and vegetables for some months without curing their constipation, once this has become very severe and chronic.

Again, I am in favour of fruit and vegetables in proper proportion quite apart from their ever having been found to be of use in a laxative respect. They

present the most valuable form of vitaminic food in existence—so necessary for blood purification.

Extensive experiment over many years has proved that the commonest form of constipation is the result of nerve tension, both general and local. This fact I myself established many years ago, when I found that a certain kind of nerve relaxation (neuro-induction) promptly corrected a very large percentage of the most severe cases. And this particular treatment remains to-day the best means existing for curing constipation; the second best in demonstrative value being exercise of the diaphragm as above explained; the third being diet. Neuro-induction acts through the general autonomous relaxation that is involved, and through the local tone that is given to the muscles for acting when their energy is required; it serves to balance the energies of the sympathetic scheme of nerves which have been out of order.

I am quite prepared to admit that a vegetarian dietary, when pursued, may also sometimes lessen nerve tension; it will sometimes lessen the chances of constipation in its own particular stimulative way; but a vegetarian diet may not be advisable for everybody.

Neuro-induction acts quickly; diaphragm exercise *may* act soon, but it is more likely to be slower in its effects.

The ideal treatment therefore is, firstly, neuro-induction, in order to relax local and general nerve tenseness; secondly, diaphragm exercise which will help the first agency making for recovery and assist afterwards in prevention; while, thirdly, the taking

of enough vegetables and fruit is extremely likely to help greatly. All three constitute the biggest set of combined forces that can be brought together short of actual laxative medicine taken in quantity and regularly, which latter, of course, cannot be altogether desirable. It is now reasonably believed that laxatives, when taken habitually, cause eventually a degree of blood contamination. The first of the three mentioned remedies is frequently found to be quite enough to ensure permanent cure ; the second is also ; the third is also.

Ordinary massage of the abdomen will do some good in some cases ; but here the opposing tenseness of the general and local nervous system and the muscles governed by it, is likely to be an obstacle. At times, when it has appeared to have done much good, it has afforded that amount of relaxation which has finally overcome the comparatively mild tenseness opposed to it. Yet very often it has happened that the more vigorously the muscular energy has been applied on the part of another person, in a varying massage technique, the more the nerve tenseness has opposed, showing that the nerve factor may be very strong in quite the negative direction in an auto-suggestive manner.

It has been found, in studying hæmorrhoids, that an effective relaxation of the abdominal contents *plus* an impression that contraction of the local blood-vessels and also swellings, by means of the neuro-induction technique, almost invariably results in the rapid disappearance of the abnormality ; especially is this so when the "impression" involves a lesson to the understanding, as well as to the local

sensations of the patient, that contraction is aimed at ; this lesson is given to the offending region either by manipulation, if the hæmorrhoids are external, or by the passage of an instrument if they are internal (a simple bougie or speculum is sufficient), which will help to convey the mental conception of reduction in size. Indeed, the best cure in existence for hæmorrhoids is direct pressure under neuro-induction, which prompts and actually creates a contraction of the blood-vessels ; it compares favourably with excision because the whole cure is more rapid, while complications or unfavourable results never can occur.

I have not yet failed to reduce external hæmorrhoids to permanent disappearance by the neuro-induction manipulative means—usually by one treatment.

Hæmorrhoids are rare in animals, partly because of the horizontal posture and the absence of gravity, but also because animals are not subject to the same degree of local sensitiveness as exists in human beings. In the latter, once a lump is felt it is naturally dwelt upon by the mind. This sense of weakness of local control is apt to remain as a distinctly sensitive loss of control, especially when, through hearsay, the possibility of further evil developments is so highly appreciated. Should the hæmorrhoids be external, then the chafing of the buttocks in the erect posture serves to contribute greatly to their continuity. If they are internal then the daily passage of fæces irritates them often to an exquisite degree of local discomfort and mental anguish.

The above rationale has come to light through a

deep study of the effects of neuro-induction as an essential mode of procedure in dealing with a great number and variety of bodily and mental disorders.

As to the rapidity of action in the three respective methods, very often one single treatment by neuro-induction is enough for the permanent cure of either constipation or hæmorrhoids, or both. Exercise of the diaphragm alone may also produce favourable results in twenty-four hours—if not directly after first trying it. Dieting may also correct constipation in twenty-four hours, in some cases. Hæmorrhoids treated by neuro-induction will begin to regress sometimes more quickly than the effects on the bowel activity are manifest, but their total disappearance may possibly take some days even in the case of those recently formed, while some weeks' or months' patience may be necessary for those that have existed for months or years. Definitely fibrous thickenings may require months to appreciably lessen, while possibly the "inactive" remnants of these may remain for ever. The latter may well be cut away if they are found to be either inconvenient in themselves or if they seem to be repeatedly inclined to provoke acute attacks.

It will be clearly apparent to any one that the first of the three methods requires an experienced person's aid; the second is a method which can easily be learnt and adopted by the individual requiring it; while the third is one which any one, or every one, could employ to advantage; truly, if one or other of the three are brought to bear early enough, then surgery should never be required. Where there is incurable

mental disorder it is obvious that surgery may provide the only means possible as against hæmorrhoids.

In order to help the reader to understand the effects of neuro-induction in hæmorrhoids, in the next chapter I happen to refer to a most instructive case, the condition having been as severe as could possibly be imagined.

There is no method in existence which will so quickly and permanently cure ordinary prolapse of the rectum as neuro-induction. Surgical operation will succeed, it is true, but nothing like so satisfactorily in the long run. Prolapse, which is secondary to prior damage or disease, will usually require surgery.

CHAPTER IX

CANCER AND NEURONAL CONTROL

THE following study originated from a change from general to special practice fifteen years ago. The nervous system and mind were preferred probably on account of previous interest that had been taken in the natural history and habits of the fauna.

Amongst various cases chosen in commencing this special work was that of a girl who suffered from "nerves," but who happened to have at the same time a crop of warts on the back of her hand. These were said to have made their appearance after an operation she had had upon a large wart on one of her fingers. The information was elicited through questioning that she had been very disquieted in mind as a result of the operation, and had feared other warts might come. This seemed like an example of autosuggestion, which prompted the reasonable judgment that heterosuggestion might cure this particular crop. It was resolved that her brain energies should be cancelled down by a process mentioned before, namely, neuro-induction, which is effected chiefly through autonomous relaxation *plus* local manipulation and suggestion (as explained in

Advanced Suggestion, second edition—Baillièrè's); this was designed in the particular case to produce a neuronal concentration and mental attunement towards the regression of about half the number of the warts, with the result that these forthwith began to disappear. They completely disappeared in a matter of three or four days, leaving the other warts which had not been so manipulated, in fact word references were made by way of suggestion as to the second lot remaining. After the distinction had been established, the remainder were treated similarly, and they also disappeared.

The conclusion was reached that it was probably the blood-vessels which had been affected by the "suggestion" of neuro-induction, towards their reduction in size, through the nerves supplying them, and that this had led to the gradual shrinking of each small growth.

The experiments of earlier observers were then called to mind, who had caused acute enlargement of superficial blood-vessels, after the manner of creating "stigmata" of distinct patterns, by means of "suggestion." It appeared that if this form of progression had been possible, why should not regression be sought by the reverse scheme of suggestion?

Further experiments were made upon various erythemas and swellings. It was found that in each case the red appearance could be reduced to paler, sometimes to the degree of being instantly obvious to the naked eye, which showed clearly that it was through the blood-vessels that regression took place in the size of certain tissue enlargements under "suggestion."

At length a case of cancer of the breast-bone came seeking for advice regarding insomnia. The disease was outwardly visible ; the mediastinal area was implicated and all hopes had been abandoned by advisers. The patient—a man, fifty-four years of age—was found to be strong enough to understand clearly all that was said to him. Neuro-induction was brought to bear for the insomnia, at the same time the nodules were neuro-induced and palpated, a couple of hours after which both the patient and others could clearly and easily distinguish a lessening in the redness as well as in the size. The regression of the spots directly palpated was sustained until the patient's death some six weeks afterwards from the general exhaustion due to the extent of the disease.

Later on a case of cancer of the mouth and jaw that had been discharged from hospital was found. Again neuro-induction caused distinct regression and general improvement, and the patient was lost sight of.

Later still (about fourteen years ago) a convalescent neurotic patient asked what were the chances of her friend who was suffering from fear of cancer recurring in her breast, which had been operated on some time previously, for the latter patient had declared that she could see some nodules “coming again at the place where healing had taken place.” The friend was interviewed, and an irregular chain of slightly reddened enlargements was found, some about the size of small half beans, in the line of the cicatrix. Odd glands were also felt to be slightly enlarged in the axilla of the side.

After neuro-induction, regression began forthwith and continued in the nodules and later in the glands, and a state of freedom from the disease has continued until this day upon which these present lines are being written. As previously published, it is not contended as regards this particular case that the recurrent nodules were cancer. They were believed to be cancer. They were not microscopically examined. But whatever they were they regressed at once after treatment by neuro-induction. That the patient did not imagine they were there is evident from the fact that others saw them and saw that they regressed.

During some years after the above period of making experiment the same technique was employed upon other vascular abnormalities, various skin eruptions, and the results proved to be positive some hundreds of times.

The inquiry upon cancer was not pursued regularly because of the difficulty of finding cases as well as the chances of incurring a hindering opposition to the other general work meanwhile going on of the same neuronal training character.

But, later on, a lady dying from cancer, who could hardly breathe, and slept badly, was seen for the latter reason particularly, in which case neuro-induction reduced tension generally and locally, and conferred great benefit until her death. After which another similar case was treated in the same manner to great advantage.

Five years ago the brother of a patient who was "moving to the end," suffering from cancer of the prostate, sought to obtain evidence as to whether any good might be done by psychotherapy. The

patient belonged to a distinguished family, and after the brother's answers to questions regarding the patient's intelligence, it was decided that it was extremely likely that it would. Neuro-induction was tried, and all observers, including the patient, were quite satisfied that improvement all round was the result. The patient, however, expressed a wish that he might continue the X-rays at the hands of an expert who had been so extremely interested in his case ; in fact he felt practically bound to do so under all circumstances.

On the day following the trial of neuro-induction, it was reported that the patient was distinctly better in every respect. It could hardly be imagined that this report was given in order to please anybody, for the details of betterment were such that they could hardly have been invented. Anyhow, after a full family and medical discussion, the improvements were put down (enthusiastically, but not unfairly so) to the X-ray treatments, which were considered to be really doing the most good.

In this case it was the brother who had believed that psychotherapy would do some good, as it really appeared to do, while all others, including the wife of the patient, had pinned their faith in X-rays. In a few weeks the patient died.

Four years ago a lady was urgently recommended to seek some further professional decision as to the advisability of her hastening home to Switzerland at once, for she was in the last hopeless stage of suffering from cancer which was involving the intestines so that functioning had become near to being impossible. She refused to go. She could

just walk out of a motor-car but no more. She was at once sent to an hotel, and after examination, was treated by neuro-induction for general distress with local pain and swelling of the abdomen. Six hours afterwards it was reported by a relative in attendance that she was much more comfortable. Eighteen hours afterwards the account given included a good night and a return to desire for food, while the bowels and bladder had acted quite normally. She wanted to get up to do some letter-writing. This was disallowed until after a second treatment the following day.

On the third day she got up from her bed and expressed a wish to go out motoring in order to see some of her friends. The tumid abdomen had gone down to nearly normal, at least so far as to enable masses of the disease below to be felt quite easily.

She had five treatments in all, and within a week she was able to undertake the ordinary duties such as a state of good health would allow any ordinary shopping lady; meanwhile she even set to work to finish a small book which she had been engaged in writing for a publisher—and she did finish it. Then the day was fixed for her journeying abroad. The next heard about her was from a relative, who wrote the information from Switzerland that she was in “splendid” health and that all were most thankful for the benefits that had been conferred. No news of her has since been sent.

Some few months ago (1924) the case of a man suffering from cancer of the rectum, who refused any operation for his own particular reasons, was sent for advice regarding the possibility that neuro-induction

might be of some use, for it had been reported to his advisers that hæmorrhoids had been successfully reduced many times in various cases by this means. The mass was felt to be about the size of a large tangerine orange. The patient could not sleep because of the continual distress arising from a desire to stool. Constant tenesmus, as well as the necessity for frequent enemas and doses of purgatives, had brought him to a state of despair. He was told that neuro-induction might relieve him, but that no certainty could be promised as to what the future might bring.

Within an hour following the first treatment he felt better and went to his hotel in order to endeavour to rest and read. The next day he called, looking strong, bright, and happy. He had had good movements of the bowels, had slept well, and now felt able to eat anything. He was treated again by local palpation and general neuro-induction, and it was observed afterwards that the congestion around the growth as well as the growth itself seemed to be diminishing. The growth was more mobile. There was more room for the examining finger. He had five treatments in all, after which he went home to the provinces, and no more was heard from him, the custom being to favour all patients writing without their being expressly encouraged to do so, in the belief (*a*) that it is very likely that the disease will ultimately prove fatal, and (*b*) that other advisers may make it difficult for the patient to communicate anything at all.

The chief object in dealing with such cases in the manner described for the time being is this: it is valuable to observe just what happens, whether it

might be wholly favourable or no ; one would like to know everything to the end, but it is found sufficient to get scientifically reliable results so far without unnecessarily pushing the quest into difficult channels, where it may be impossible to reach final judgments in a life that is always very full of the taxations of extensive practice and research.

In all the above cases some great reduction has taken place. This is the lesson so far. And there is every reason to believe that similar results will take place in practically all instances where congestion and enlargement of the character of neoplasm is the abnormality and where neuro-induction is the therapeutic agent employed.

Other workers on the same lines, though they appear to have only proceeded so far as to reduce some erythemas and vascular abnormalities of a more innocent character, such as skin diseases, obstinate ulcers, hæmorrhoids, have reported that they have obtained regressive results. The active peripheral edge of most inflammatory skin disorders will exhibit regression phenomena in practically all instances in which a properly applied neuro-induction technique is the principle employed. Hæmorrhoids are usually promptly regressible by neuro-induction, unless some fibrous confirmation has been of long standing.

Having regard for the fact that in numerous instances of congestion and abnormal formation, including cancer, in which regression has been sought and obtained to a definite and macroscopically obvious degree, without exception, by means of neuro-induction, it seems reasonable to propose that further work on these lines should be pursued by those who are

endeavouring to fathom the mysteries which characterise such abnormalities, both as regards the nature of them and the best means possible for combating the difficulties which their cure presents.

There is a growing belief that malignancy depends upon a condition of the blood which favours abnormal vascular extension, without which any kind of tissue neoplasms can hardly exist. It seems possible that metastasis occurs through the exciting influence of abnormal fluids and cells upon the glands, which cells provoke similar abnormal processes in whatever region may, by its weakness, particularly invite them—the whole vascular system thus conveying fluids which favour loss of tone. It seems even possible that in cancer the blood has been contaminated particularly by certain dietaries which have encouraged toxins to develop in quantity, more especially those which have contained too few of the fresh vegetable vitamins; hence it is recommended that all people should study their dietary to the extent of permanently adopting a habit of feeding daily upon a fair proportion of the latter.

The above investigations have all along taken place with full regard for the immense influence which the mental factor may exercise throughout the course of cancer. This will have been judged already to some extent from the foregoing paragraphs; the neurone factor is almost bound to enter, being one that is likely to contribute to causation and progress through involving the central reflexes to the extent of pain—which itself is likely to create distress of mind as to the possibility that some sort

of serious trouble may ensue sooner or later. Moreover, one may equally well insist that worry is one of the greatest causes of toxæmia through its effects upon metabolism.

Therefore the mental factor is extremely likely to contribute also towards the initiation of malignancy, if indeed it does not do so in some cases of benignant neoplasms. It is a factor that has long ago been repeatedly suggested as being likely to be powerful ; arguments in favour by various authorities have been set forth in a chapter on Abnormal Growths in *Advanced Suggestion*, first edition published in 1918, while on Nov. 7, 1924, Dr. D. Guisez of Paris referred to the causation of throat cancer in a lecture at the Royal Society of Medicine, London, in these words :

“ It had been the experience of himself and his colleagues that psychic causes were assigned by patients in more than half the cases seen as having provided the origin of their trouble.”

CHAPTER X

MEDICAL ORGANISATION

THE fact that medical men in the mass object to contributions in the lay press on medical subjects, written by medical authorities who sign their names, is bound to lead to demands being made for reasons. Some people are sure to conclude that excuses for objecting would be difficult to find.

Have we not to-day some object lessons before us which afford abundant proof that there is something very seriously wrong with medical organisation? We have, on the one hand, a gentleman who is now a knight-high bloodless surgeon, who never passed an orthodox medical examination in his life, and who, according to the verdict of many front-rank surgeons themselves, could teach orthodox practitioners methods such as they have not been able to acquire by any possible means of their own. We have, on the other hand, at least a couple of authorities on disease who also have never studied medicine in the ordinary way, but who have written important works on the most difficult diseases of all to understand.

Nay, more, we have even the fullest assurances as to the uncommon worth of these lay efforts in the

form of forewords and favourable criticisms, freely given by distinguished medical men in order to help on the great lay work, which constitute at the same time most eloquent proofs of the shortcomings of the mass of the medical profession.

What does all this lay work mean if not failure on the part of orthodoxy? If we come to examine the whole scope of medical scientific labour we shall be bound to consider that there must be something in the conditions under which the medical profession works that positively prevents advancement.

Organisations of all kinds frequently appear to soar swiftly towards apparent perfection in their initiative and promising power, according to the amount of emotional interest elicited and the momentum gathered as funds come "pouring in" from a healthfully generous and kindly disposed public; but the failure of many such organisations to produce what they set out optimistically to reach would make melancholy reading for experts of the inquiry offices and statistical societies. Many organisations begin with good money, and not only go on living upon it, but learning how to appeal for more; they continue to make out the best case they can in order to sustain confidence, until they finally succumb. Disappointment and heartfelt regrets are then felt by such as have enjoyed for some years quite a big salary for nice and easy services rendered, in a most benevolently sounding cause, while the sorry accounts soon pass into the limbo of the forgotten.

Meanwhile there are workers quite outside these organisations, who quickly discover a vice derived out of the sensations of self-satisfaction which the

majority of organisers sooner or later develop ; they discover a selfish, jealous, even unwise exclusiveness towards anything that is originated of value outside their ramparts. In order that organisers shall feed themselves well for continuance there must be massed opinion in loyal favour of the work done inside, and this spirit is extremely liable to generate something worse than disfavour towards everything done outside. This kind of procedure may be advantageous and happy enough in certain kinds of business, in which wits are legitimately at work to gain ordinary material possession ; but when it comes to science, and particularly medical science concerned with the saving of suffering and life, the plainly philosophical onlooker has some right to rub his eyes and ask very serious questions.

The fault with medical organisations is that they are too often founded by position-hunters, who sometimes acquire their first influence through inheritance of money or on account of some fortuitous backing by people who are quite alive to the ulterior common business aspects, reflections, and tangents. At times purely scientific capability altogether actuates an individual ; but even this is liable to be exploited sooner or later by others who are less well-meaning. Pure scientists without guile—and, of course, there are many—are ignorant as to the real character and effects of such machinery in their keenness after science only. I have specially studied several instances.

What is wanted more than anything else in order to advance science generally to-day, but more especially medical science, is some new kind of organisation which shall be so altruistic in spirit,

and ordinarily fair in disposition, that it will positively encourage work done by non-members, so that when new small discoveries are made, by isolated humble individuals working alone in their private laboratories or workshops, there shall be instant examination of these for all they may be worth, and a hearty acceptance of them according to honest valuation for greater cultivation to the common good.

In times gone by the greatest discoveries have been made by men working alone, generally in spite of opposition. Lord Lister worked against virulent—almost violent—opposition for fifteen years before his enemies began to help themselves to the fruits of his labours and to label whatever items they could steal from him as their own. Sand-bagging and theft have been the reward of past days when great discoveries have been made. All this is well known, and has been eloquently expressed in a book entitled *Discovery*, written by the distinguished authority, Professor Gregory.

But why understood and not altered? We ought to have been rid of this sort of iniquity long ago. “Discovery” was written several years ago, yet most of the vices therein exposed have gone on increasing like cancer. A sense of confined loyalty is undoubtedly the self-satisfying excuse that is ever uppermost in the minds of certain position holders. A mocking virtue this! What about a greater duty and loyalty towards the rest of human kind to whom the research worker and the scientist ought to be the most willing and therefore the best paid of all servants? What would the rest of the world say if the scientist should decide, “I work secretly

for myself and mine ? ” Although there are many people who argue, “ Let the scientist work for us for nothing if he will.”

Some of our medical scientists declare that they give their services for no recompense. They claim virtuous recognition for this ; but we know that the majority of place-hunters in the past have had a very clear understanding as to quite free services within hospitals being the very best means of obtaining handsome incomes outside these benevolent institutions.

Such words may seem to some readers to be verging on the offensive. But why should they ? They do not express anything more than plain truth.

Medical organisation has of late years been perfecting itself in quality of knotted netting, but fate has guided its personnel towards the fashioning of small ends, until the time has now come for some candid critic to note the plight which all are in. Strong hands of outsiders have been knocking at the doors and entry has been refused, while the knowledge of the knocking is still there in the disquieted conscience. At length it has become increasingly difficult to make amends when “ holding out ” so long a time has made the unevenly paved inclined planes of false positions uncomfortable.

Crisis at length comes. Scandal is revealed, which compels further revelations and explanations for shortcomings. We see this phenomenon now in process of evolution in the case of the insanity laws now being studied by Royal Commissioners. We see a further form of fateful compulsion at work now that a critic has declared that the layman’s book on cancer “ will do more towards helping on the dis-

covery of a cure in six months than has been done by any orthodox means in the past six years." We see big buildings of organisation with stony frowns concealing brains concentrating and worrying not because of continued failure, but rather because of statistics which convey unfavourable impressions notwithstanding great cost of personal labour and scarcity of means to maintain.

Small ends of nets bring the varying contestants closer together, while reconciliations and emendations are harder to come by when firm efforts of judgment have appeared all along to be so wonderful, even quite unalterable at all events.

What is to be done? A Royal Commission on Scientific Organisations might not be a bad idea. But even Commissions in the past have not been without critics capable of making very cogent complaints regarding the personnel chosen and the character of the business ultimately done.

The great complaint against medical organisations is, that papers are admitted to be read according as position and influence may win permission of the would-be reader, and not according to the inherent worth of the scientific observations and findings presented. The result is that many papers are read which are useless, and many unread that are valuable. What is wanted, therefore, is a sound sifting body of real judges who will distinguish merit that is marked by a number rather than by the position and name of the claiming originator—the latter to be kept in a sealed envelope.

Advancement in Surgery is not so subject to vicious control. This may seem strange until it is realised

that success in this branch of practice has depended for the most part upon individual manipulative skill and direct results. Lister's discoveries have reduced mortality through diminishing possibilities of septic process, since which time progress has been mainly in accordance with knowledge of anatomy on the one hand, and manipulative deftness with knives on the other. Progress on the purely medical side has depended upon poor and uncertain knowledge as to the causes of various diseases, and upon experience through experimentation over a sufficient number of cases to make some sort of finality in conclusions. The malorganisation complained of does not permit of ready exchange of ideas and wide comparisons of experimental conclusions. Hence Surgery has greatly advanced in recent decades, while the Practice of Medicine in the same period has not advanced anything worth speaking of as regards our commonest diseases, such as consumption, cancer, dyspepsia, epilepsy, and so on.

Malorganisation has prevented advancement through the system of too readily embracing certain discoveries, which eventually are found to be of little use, and by not finding other methods the pursuit of which would lead to real advancements. There are abundant examples existing which prove this to be absolutely true. It is not that one imagines that better organisation might be beneficial; it is that certain work already done outside existing organisations can easily prove itself to be more advanced than work that has been done inside in particular fields of investigation.

What kind of examination and proof is wanted?

Not that of place-preservers who have their own personal interests to study at all costs, but that of pure scientists who are able and disposed to judge work and results for the sake of advancing science and nothing else.

Lack of organisation—or, as one prominent lay journal has described it, “over-organisation”—at least indicating the characteristic hard work and industry shown in the profession—is an evil that inflicts very severe hardships upon the rank and file. It results in little or no encouragement being given to individuals for scientific advancement. Some of the most valuable discoveries in medical science have been made in the past by general practitioners, in spite of the difficulties which mal-organisation has ever produced.

I shall now explain further the essential evil that hinders scientific progress. The organisation of the profession is largely in the shape of the Ministry of Health, acting as a parliamentary supervising and advising body; also the various educational and qualification-distributing medical schools and university sections, all provide their proper quota of organising heads; the medical societies are concerned with giving advantages, through collections of members chosen on account of individual fitness as judged by proposers, seconders, and majorities giving their votes at meetings, to the end that opportunities shall be found for exchanging ideas, searching records, comparing notes, and reading papers likely to be useful for advancing knowledge.

Now it is not unique, doubtless, to find, in such

collections of men understanding one another that mere position can make more position, in two senses and processes. That is to say, on the one hand, a man in one good position is usually all the better placed for getting into another position, possibly deserving one after the other because of his great capabilities; yet he may undoubtedly gain power purely through obtaining good "jumping off" positions by means of his persistence in pushing and in gaining social favours alone. Most men in good positions earn these, I have no doubt—and earn them absolutely fairly—but no publicist of whatever standing would disallow the argument that many positions are won partly—even sometimes largely—through the personal and social advantages obtained, while there are plenty of examples of pure scientists of the highest order who have only become known as such quite late in life because they have never had social advantages of the kind.

Science generally—not only medical—is well known to suffer from this lack of sifting and clearing machinery for finding advancements. Machinery is a term well used, in order to indicate those well-dressed social assemblies where order of address and personal favours are punctiliously judged; such will not be as efficient in the service of scientific sifting as that would be where only the quality of the research and findings came up for putting in the scales. All scientists are aware of this, and many have bitterly complained of it in the public press.

What happens in the average medical society—or sections of a society? The usual procedure is the election of president and officers for each year.

These are nominated beforehand, as a rule, and their election is a foregone conclusion, partly because of prior conferences and understandings regarding various applicants for positions, but largely because it is merely customary to seek for no other. There thus comes into being a very considerable power of office-holding, as against everything else and every body else outside this holding.

Again, every president and office-holder is naturally anxious to make the best of his position for the year. There is a harmonious cohesion of the sections for the one end, that each shall get the best advantage possible for the time being. Nor would it seem that any individuals could be blamed for this.

But what is the effect upon the whole trend of advancement, when each individual in power seeks at once to put forward either his own evidences of learning and research or the work of those who are closely associated with him in some way ?

The system is the very negation of fair combination if it succeeds in favouring those of the annual elect ; for let a newcomer (though a member) apply to have a paper of his own read, and it will not be the quality—that is, the degree of scientific value of the paper—that will be judged first, but the social and medical status of the individual. Indeed, if members of a selecting council should consider that a paper offered did not favour their own particular ideas, then it is extremely likely that that paper will be voted against, not because it falls short of scientific value, but because its acceptance would help a man who ought not to be helped unless he can get into a more commanding—say, hospital—position.

Much of this sort of criticism will be strenuously denied by many who have been in positions where they have been fortunate by dint of reasons other than a purely scientific acquirement of knowledge; but the majority of medical men will agree that I am right even if they dare not candidly admit it.

There are existing evidences to show that what I write is the case. The system is proved to be so far wrong by one simple example which I may mention at the moment. A very distinguished medical man was directed to sit in an office for the purpose of interrogating applicants for an important post. He was a great power in a large medical school. His first question, at least to some of the applicants, was, "What hospital?" If the answer gave a hospital which was not his, he sought to get rid of such an applicant at the earliest possible moment.

This form of offence against science and the commonweal is so common that every medical man has either met it or heard reliable evidence regarding it.

My point is that it is damaging to the medical profession, and, when all medical men know that it exists, they ought to resolve with one consent that it shall not obtain any longer.

YET HEROES ALL

There is not a practising doctor in the land who does not perform one or more very distinct feats of heroism in his lifetime. And many do so almost weekly.

The medical life gives rich opportunities. The emotions of feeling capable to render assistance are

ever uppermost; they produce culminations in decision, adaptations, and acts of urgent relationship, in ordinary general attendances, that are often totally unrecognisable as the purest of benevolences. Not even do many doctors know the extent of the sacrifices they sometimes make; they become so accustomed to them.

Take the instance of a surgeon who pricks his finger while operating on a patient suffering from poisoned blood. As likely as not he will continue the operation in the patient's interests, thinking little of the great risk he is running. Sometimes he dies as a result within a few days.

The sucking of a tube blocked after operation for diphtheritic asphyxia, which occurrence would cause the patient's death unless the tube were cleared, is one of the common acts of heroism unhesitatingly performed, to the great risk of the disease being contracted by the surgeon.

The famous surgeon, John Hunter, was known to have given himself an incurable blood disease—from which he suffered at least fifteen years of most distressing symptoms that finally caused his death—in order to prove, by observations made on himself, just what were the main characteristics of the disease, so that it might be more accurately diagnosable by others in the future.

Accounts are published every year of members of the profession making self-sacrifices, as when a number of them go forth abroad into deadly foreign areas in order to investigate intimately the nature of communicable illnesses, in the full chance of becoming victims almost before the characteristics of

disease could be recognised. Deliberately intending to look "death in the face" would well describe some of these errands.

There is also an inclined plane towards risks, upon which many doctors are placed as by inevitable sequence of events, when overwork comes stealthily upon them at seasons of mild epidemics. At such times the doctor has been known to drop over the sick-bed with a collapse of exhaustion ; some have even died from heart failure. In such instances he entirely discounts himself so long as physical ability lasts.

Such circumstances of life and work the present Royal Commission sitting on "Panel Practice" might well take into account. The lesson from the facts referred to is a twofold one. It is necessary for governmental authorities to be satisfied that medical men are well enough paid for the services which they render under Acts of Parliament, and it is most highly desirable that popular medical men should not become so overcrowded with patients that errors of judgment enter to bring disaster either to patient or doctor.

CHAPTER XI

MEDICAL SOCIETIES AND JOURNALS

THE medical leaders themselves have been placed by natural evolutional processes into positions of comparative powerlessness in their respective citadels, and especially is this to be observed in the Royal Society of Medicine, which consists of a federation of formerly separate societies under one roof and subject to the general secretarial guide of an eminently capable gentleman. Every one would readily allow that to gather a set of already made and managed societies amicably under one form of control was no easy matter for any one to undertake. In this manner came into existence the present potential society made up of respective sections.

So far the Royal Society of Medicine has been a success; but only so far. I shall refrain from criticising it as fully as I feel able to do, not because I am a Fellow of the Society of many years' standing, but because at the moment I do not feel that any good purpose would be served by so doing. But I am obliged to offer my opinions as to how and why this largest of the medical societies is at fault in a particular respect, for soon I trust that reform will be effected.

It is mainly through the work of the medical societies that the few chosen advancements get some chance of becoming known, and it is therefore mainly through these societies that the medical journals are able to draw material for publication. At least the reading members of the profession, including those who can never hope to attend meetings of the sections of the Royal Society of Medicine on account of living at great distances from London, can look for the reports from the leading societies in the medical journals when they desire to keep abreast with the continuously progressive times.

Nobody knows better than editors of journals that their reading public is not at all easy to please, having regard for so many differences of opinion—so many diverse temperaments and enthusiastic obsessionists to cater for. And obsessionist must be a fair word, for no professional work is more likely to create ardent and forceful protagonists, as well as bold innovators, than the medical—all praise to such as are begotten of the right spirit for being concerned with helping mankind in the direst of difficulties when ill-health takes possession.

We cannot for a moment decide otherwise than that the editors of medical journals do their level best and perform a difficult work mightily well, as all editors must do who keep their seats. The amount of work they are obliged to do, in sifting and selecting, must be maddening to any but almost superhuman intellects. I know enough about such work to be able to declare, taking all the kinds, that the duties of an editor of a journal are most brain-racking.

As to their morale, this is extremely clear, as it

appears to me. The business of an editor is to find, and present to a body of subscribers to his journal, a useful quantity of reading material in each number punctually issued. His work consists of judging what will be appreciated by at least the majority of the subscribers, for otherwise his journal could not survive. He is bound to keep his eye upon what opinions the majority of experts hold that will satisfy and sustain and even sometimes stimulate pleasantly the majority of readers. Editors are not expected to be—they cannot be—the highest experts themselves,—particularly must this be the case in medical journalism, which requires so much time, if it be well served, that the highest knowledge regarding actual practice could not be obtained as concerning all branches of advancement. Each one is therefore obliged to accept the decisions of the various experts in high position.

Therefore editors are practically powerless for either directly deciding or encouraging work that has not received the full and smiling countenance of the leaders who regulate the work and output of the societies. All they can do is to decide what material of the societies shall be subject to their acceptance for publication in the common and largest interests.

In lay journalism the present-day tendency that is almost characteristic of the whole is for editors to let in courageously such anticipatory and often speculative material occasionally as shall at least arouse much interest and possibly some opposition, to the end that the interest engendered shall be of the debative character. In this manner there is an oscillation operating which does succeed in the end in finding

approaches to absolute knowledge, and these lead to finality of conclusion and to such balance as makes the publication "safe for democracy."

The present day lay journalism elicits that very breadth of interest which was so painfully wanting in days gone by, when to open a certain newspaper was only to learn just one side of many questions. Nowadays all the best newspapers contain so much of all sides that each in itself contributes to the best of all forms of education. No longer does a subscriber look to one newspaper only for final decision or for perfect inspiration ; he reads its pages rather for the purpose of being better able to arrive at his own personal opinions. Which object in view is even more intensely British in nature than International or other anxious people could ever have expected possible to be reached by any nation.

Medical editors, doubtless, quite rightly decide that they must not be too speculative, whatever may be the courage shown by lay journalists.

Therefore no serious fault can be found with medical journals. No fault can be found with any journal which does its honest best to obtain readers. The only people who have any cause to find fault with editors are directors and shareholders who are not satisfied with the interest they are receiving for money they have invested in their ventures.

It is natural that presidents, secretaries, and members shall all do the best they can for themselves in the several sections of societies. Preferential position can hardly ever be solely for the self-sacrificial purpose of wholly considering the interests of every

one else. Such ideal conception is possible, but not the least probable, to the judgment of the smallest psychological understanding.

Nor can any leaders be blamed for so considering situations. As well might a cleric be elevated to an archbishopric and be expected to be unconscious that the position was one worthy of his pride, as that a president of a body shall not be expected to receive some sort of reward of moral or material kind.

Philosophers will allow that everybody may be selfish to the extent of making his own benefits so large as to produce the capability for conferring great benefits generously upon others. This is the salutary sanction which capitalism often wins—fortunately for the million.

Therefore the fault to find with medical society sections is that there is too little disposition shown by leaders and office holders to let in possibilities that point towards advancement, that may have only inherent value to recommend them and nothing more.

A wholesome corrective of the unfair conditioning complained of would be this: the selective principle worthy of adoption should be instinct with the one great purpose, namely, to find advancement; not personal advancement, but as coming from any direction whatsoever, even from outside the machinery of organisation if it could possibly be heard of.

Each individual, from the president of a section downwards, should extend open hands to any written material that might seem to have a distinct possibility of value somewhere below its surface. If such could be sensed, there should at once be the best welcome

given to it for its own sake, not ever for the advantage of any individual who may happen to present it.

All this may at first seem to be so much counselling of perfection, until readers remind themselves that what scientific societies should be created for is, not for offering favours to individuals, but for finding further scientific facts—such as are new to science. This should be the constant requisition. It has not in the past been the first object in view. Hence these pages. Hence the demand for reform.

The common idea possessing many members of scientific societies has been this : Now what paper can I write and offer to read that will create the best impression on the part of the majority of hearers and readers as to my own capabilities ?

The correct idea should be : Now I wonder what ideas any of us will be in possession of that may be original enough to be found to be an advancement, or at least helpful towards solving the particular scientific problems which we are most interested in as assembled enthusiasts ?

A good test for each member to apply to himself, or that may be seen in operation in others, should be : Am I glad that another man might have made a new discovery, or do I feel inclined to oppose him because I am jealous ? In other words : Am I glad when a new discovery is made by another or not ? If not, then I am not a true scientist.

A fine spirit is that of the boxing loser who goes forth at once to congratulate the winner. It is this : Am I glad that some one has gained in the great game of research for the sake of the gain, even though it may be a perfect stranger, who has

succeeded? If the loser is angry, he is a bad sportsman: if the research worker is umbraged at the success of another, he is unsound in his moral make-up.

The *Weekly Dispatch* has published some illuminating articles regarding certain forms of treatment which were becoming "the rage," and noted particularly how medical men and surgeons were very busy amongst them, especially such troubles as furrowed features which required reducing, or old age that needed operations and other helps to lessen the ravages made in facial appearance. Attention has been called to a device known as Abraham's Box, sold at a high price, and vaunted as a diagnosing and curing instrument of unheard-of value. All this serves to indicate the absurd lengths to which procedure will be carried in medical life, while quite important matters receive not only very little attention on the part of organisers, but are actually kept back from receiving due consideration.

The *Medical Press* of Dec. 24, 1924, in referring to Fashion in Medicine, concludes with these words:

"Were Luke Fildes to paint the country doctor of to-day, instead of depicting a grave, frock-coated physician seated by the side of his little patient, and looking to Nature for a cure, he would portray the active and alert practitioner, hypodermic syringe in one hand and an ampoule in the other, relying for success upon his vaccines and his sera."

That reform must come, and indeed quickly, is shown by the most recent medical journals (since *John Bull* articles), which contain frank admissions

from leading medical men, such as, that "Midwifery work is not liked by medical men." Upon this recognition it is easy enough to comment, that a more self-damning one could hardly be uttered. No strictures that I have ever uttered could be more fatally eloquent than this. None could be more offensive towards women, when maternity work has every right to be favoured by medical men more than any other ; indeed, it used to be so favoured, even less than fifty years ago ; it is so favoured by some practitioners now. It is a species of professional degeneration to view this branch of work with disfavour. It is ill-natured if not grossly inhuman. It is at least highly discreditable. But where can there be any possible excuse when so many women are entering the medical profession ?

Professor Watson (report of lecture in the *British Medical Journal* of Dec. 27, 1924) has declared in no uncertain terms that :

"Obstetrics takes up more time in proportion to the monetary return than any other part of the work of a general practitioner. He cannot overtake all his work and give adequate time to his midwifery cases—hence the tendency to hurry delivery. . . . The number of needless forceps deliveries would in this way be reduced, and the forceful delivery before full dilatation of the os and engagement of the head a thing unknown."

Professor Watson struck the right strings of the harp when he added on the same occasion :

"Conservatism is to be commended when it makes us hold on to the things which are of proved value, but

it must be condemned if it renders us incapable of appreciating and making full use of the newer ideas which emerge with time. This leads up to the question I am going to put and to attempt to answer. Has our teaching of obstetrics and gynæcology kept pace with the advances made in these subjects in the last twenty years ? ”

CHAPTER XII

WHAT TO DO IN DIFFICULTIES

A PSYCHOLOGICAL STUDY

HOW can humanity get more out of itself? Of a certainty it can do so, first, by frankly and openly acknowledging the greatest employable power on earth, namely, thought power. All should set to work to make the most of this power. Individuals should find the economic truth and then proceed to convince the multitude of it, so that it may be followed as by unavoidable impulse.

Thought derives its greatest power only through the economic truth. Hence the surprising novelty of the idea that thought power is the greatest power we possess. Few people realise that if thought power is false it is a weakness. The latter shortcoming, begotten of poor conception as to quality, has, therefore, largely prevented the force of truth in religions from holding or gaining much ground in the past.

The employment of plain fact is the greatest of all human powers. The finding of truth, and using it, is real life, is pure and essential human vitality.

What is wanted throughout the whole world to-day is a newly expressed religion. Not a new Bible, but

a more up-to-date way of interpreting it. Religion there always has been, since men came into being ; and there always will be some sort of religion so long as certain men survive who can sufficiently explain right from wrong.

Want of fact must ever create the great goal towards which humanity can strive ; truth makes spirited incentive because it is so difficult to arrive at, while at the same time it seems so very desirable. Truth is to man as attractive as the sun is to plants ; it compels a turning towards it, because of the fascination there is in the competition for lasting power on account of progeny. Many a false merchant finally hugs holy writ when he sees his children growing up.

The miseries of falsehood make truth fascinating. And if the budding philosopher asks why creation should be so mocking in affording us showers as well as sunshine, darkness, and light—as it might be to aggravate us and give us great trouble—the plain answer is that we could not have the one without the other. Contrast and relativity make appreciation, and the great relief of alternative, but they also make progress possible. Falsehood is human erring.

All the trouble between the people and the theologians of to-day is an expression of the agony of doubt. It is the pain of confliction. Therefore it is clear thinking that is wanted more than anything. We do not thrive on light as it is in the shape of prismatic indirectness, which astigmatises the mind's eye ; what we require is more direct and clear rays of final and unquestionable fact.

The Bible is crammed full of great philosophy, but this has heretofore reached the multitude by passing

through stained windows, which have metaphorically muddled rather than educated directly, straightly, and clearly.

The greatest sin of the past has been blind teachings by exemplification, which have been misunderstood both by teachers and by those taught.

The greatest sin of to-day is the continuance of teaching what the teachers themselves do not understand. Nor will the teachers frankly admit they do not understand: therein lies their greatest sin—which is tacit falsehood, really—resulting in the deprivation of those who are always naturally hungering after the truth. The teachers are making belief, out of what is not yet fully and directly explainable by them.

The Bible is crammed full of truth. But this the multitude refuses to accept—judging from the complaints regarding empty churches made by the teachers—because the truth is not clearly apparent as such.

Theologians and the laity alike are impatiently and unhappily asking one another to-day, What is the Truth? Hence chaos and decadence. Theologians affect to approach the scientists, but too often angrily, and sometimes with lips apart showing teeth. Yet both theologians and scientists ought to be occupying friendly seats opposite one another, taking a straight journey to the same destination—to the terminus of the whole truth.

What should be done? The quickest and best solution would be for scientists and theologians to get together in honest and fearless conference—not spurning or hating one another. Theologians are

irreligious if they are afraid of discussing matters with scientists, and the latter are shortcoming if they reply that they dare not tackle the subject.

There is nothing the matter with the Bible worth speaking of ; it remains the best work on philosophy ever compiled. What is wanted in the whole world's interests is a new presentation of its teachings. The theologians clutch the float of hope because they know that religious feeling still exists—in spite of them. It is bound ever to exist.

The multitude cries aloud through a few mouth-pieces : “ We want the truth.” The theologians answer, “ Believe ! ” But they do not give the plain truth ; nor will they be patient enough to help others to do so, because failing to find it themselves. If they gave the truth then all would believe, and our churches would be filled.

Religion is in difficulties, not because of itself, but because of its teachers. Truth is never in difficulties. Who ever heard of a slump in science—a decadence in the laboratory workers' actual conclusions and in their employment of facts ?

The facts of religion ought to be winning all the time like any other facts. But they are not presented properly as facts ; they are put before people like strange food, with this exhortation, “ Eat and believe ! Ask no questions about it, but take it because we say so. And we say so because the Bible says so.” The multitude replies, “ What is it ? ” and no satisfactory answer is forthcoming.

The average man or woman will no longer be pushed into religious observance because parsons say that all ought to do this or that ; they are too well

informed these days for this kind of conduct. The only hope for the Church lies in the fact that all peoples can be won by the truth that is plainly taught—indeed, from which they can no more finally escape than they can avoid seeing with eyes and hearing with ears. Theologians must cease to coerce; they must go in for winning converts by means of the greatest power on earth.

People who quarrel are those who have between them serious differences amid which truths and untruths are hurtled forth, in a profusion that may be symbolised by the very machines of destruction used, in all-out anger and bitterness even at times to the death. Of course a very big show of active warfare is going to be followed by a world's chaos, ruffled tempers and sardonic spirits ruling in the whole populace afterwards, all of which require something extra exciting by way of amusements to assist in making recovery. Could an outside judge in another planet, looking on, expect anything else?

But it is true that looseness of living and flush-faced extravagancies were coming on long before the Great War: indeed, these largely led to the war, in the helter-skelter hell-for-leather race for front places and fine gardens and hunting-grounds in addition to luxurious homes.

And to-day what? The same old aftermath, but most people even in a worse temper. With, of course, æsthetics gone half mad. The expounders of religions crying, "We have told you so, and you have taken no notice of us, and the churches are now crumbling," the shop people dressing their windows with tinselled

fabrics and sugar-encrusted enticements; the populace crying aloud that all advisers charge too much and that the benevolent offer too little; musicians developing an atonalism-psychosis, and trying their best to become attractive even to the risk of becoming wild-eyed lunatics. Cubists are doing the same sort of thing on paper. Dancers and dressers are lashing out in the wildest of bubble-bursting orgy, hardly knowing how next to astonish or shock, beggared to find enough exposure bold in flat-chested falsehood, schooled in innuendos and suggestions by which they may deceive one another.

What will be the outcome? Probably a swing back again to plain-going sense. Not all are dipsomaniacs drinking deep of the destroying element without inclination for a more pleasant Monday morning. The inner sense that sees will again ask for the temperate tea at the time for getting up and stretching limbs; the mind's eye will refuse to accept the cubistic at the bidding of the narrow-faced and long-haired. There will also be quite a bitter revulsion against the Jazz and its pulsating pettiness. It is impossible to believe that all people will go mad all the time. There are limits even to tom-tomming and public hugging. At least history tells us so,

"Such good exercise is wanted," say the dancers; but is there nothing more skilful and really thrilling than the walking-to-music and stuffy jostling to rhythm so much in vogue to-day?

What is the best thing to be done in all difficulties? It is to cancel down the "various particulars" until the plainest and simplest issues become apparent;

then to deal strongly with these. Difficulties are caused more by involvement, through departure in argument from main issues, than by anything else in the world's affairs. This departure is usually caused by one or more of these: selfishness, carelessness, plain dishonesty, or weariness which causes cowardice.

Anger should be avoided like a poison. The best force against aggravating circumstances is exactly the opposite: however vexing a position or person may be, there is nothing in the world so powerful to present against this as calm, easy, slightly smiling thought, which confounds any person who may be contributing to causation more than anything. Firm thinking and speaking is the limit to which stress or strain should reduce one. I always advise individuals to "let other persons get angry, if they are ignorant enough."

Anger sours the whole physiological system. Difficult disturbance affects the nerves and mind and causes indigestion; anger is the cause of many physical sensations which are to some extent self-damaging, not the least being that of facial distortion. Be "slow to anger" is a sound ancient recommendation. The quicker the temper, the more animal-like is the disposition.

The main attribute which distinguishes man from animals is his power of thinking. This commonplace elicits at once the incontinent reply that "Everybody can think." Yet it is natural for most philosophers to agree that we hardly need a Bible to tell us that "all men are liars"—that is, reckless thinkers.

Soon we come to realise that the higher the de-

velopment in fine arrangement of brain cells, the wider are the exemplifications of extreme variations. Thus we are familiar with the limited vocabulary of the agricultural labourer, say, on the one hand, while our interest can be claimed particularly by the scholarly information which can be imparted in a newspaper leading article, on the other. Nor should it be imagined that the writer of the latter can quickly and completely understand the "mentality" of the worker on the soil. For if the latter's mind were so easy to read, why should Lord Astor have found occasion to offer a prize to tempt the most capable of all brains to write the best article against socialism?

Therefore there are difficulties to be encountered in judging humanity—with all the leanings and urgings exhibited by its greatly varying specimens.

Take the case of a millionaire who has spent half his lifetime in studying deeply how he should amass money, and the other half in the still more puzzling and worrying, and far less stimulating, study as to how he shall dispose of it quite happily before he dies. Such contrasts in exhibitions of thought power force upon us the conclusion that the old utterances, such as "Uneasy lies the head," etc., and "Vain is the help," etc., hold as good to-day as ever they did.

But the above example is quite a mild one as compared with a fatality of human endeavour so often illustrated by certain most successful brain efforts of an individual ending in his hopeless despair, while full fruition could only come after death. Most of the greatest discoveries have created painful antagonisms immediately towards the discoverers concerned, sometimes to their punishment to death.

In order to realise the great governing power of the mind, it is interesting to study some of the changes that are possible in its very remarkable mechanism. Men and women have been known to find themselves useless and helpless when endeavouring to take a position which, to their judgment, has seemed to be desirable, but who have nevertheless risen quickly to considerable heights from the moment of some quite simple conjuncture. Opportunity, whether for displaying enthusiasm or even health, has made the turning-point, from nothing to everything that could be wished for, as simply as a waft of wind could be seen to act on a weathercock.

Take the case of an athletic champion reduced to a terribly depressing physical and mental debility for years, being brought back, by hardly more than a few trains of thought, so that the power to win two more championships was reached soon afterwards.

Study the object lesson of a struggling would-be playwright being reduced to comparative beggary, being handed over to a mind-trainer, who brought him to the position of being a brilliant author, only a few months intervening between the cause of the turn in power and the fullest effect of the remedy, just a little practice along carefully graduated elevation having been afterwards recommended.

Note the possibilities, as regards mind power, by observing the instance of a boy condemned by his father to exile in the East because of his bad behaviour at school. The warmer-hearted mother intervened, an expert was found, the boy's thoughts were trained by a few exercises, and after less than a year he reached a high place in his school.

A member of Parliament of distinction and exceptional intellectual capability is known to have declared, in absolute soberness and in the most urgent despair, having hastened to a specialist, that his mind was "going," that he had not slept properly for weeks, and that he felt a hideous doom creeping upon him that nothing could prevent. A little mind training, according to advanced methods, restored the power of sleeping, and completely brought back full capabilities again.

The present writer has seen many a grey mask of misery and hopeless bondage of mental break-up transformed in a few weeks into a naturally healthy colour, indicating release to physical and mental freedom and ease, as by the turning of a tap in the right direction.

Then study the example of a distinguished novelist who had gradually reached a state of feeling "done to the earth" through overwork and anxiety to fulfil undertakings, being brought to the "top of her form" by four lessons in mind ease, which enabled her again to "catch the rope which helps the climb," so to speak. Nothing else in the world could have accomplished this in the time; probably nothing else could have done it in any amount of time.

As to the effects of the mental upon the physical system, instances have been seen in which surgical operations have been ordered on account of the baffling character of the internal symptoms and their unyielding obstinacy as against every conceivable recommendation made by a succession of distinguished medical advisers; some mind training has been fortunately tried, with the result that perfect

health has quickly followed. Only a very few pleasant hours devoted to the method of training were necessary, to be followed by entire health and capability that had not been experienced for some years.

Hundreds of examples might be given such as above. Yet the medical authorities are slow to realise the facts ; they imagine the principles to be too difficult ; the results appear to be too astonishing for them to entertain all at once. The old time-honoured methods of bottles of medicine, and the technique of injections in order to compensate for abnormal functioning, are really very acceptable indeed, while a remedy that may accomplish so much more, but that is not nearly so automatically palpable, not so measurable in easy doses, is looked at as a something that is hardly worth bothering about.

IMPORTANT NOTES

Great improvements have been made in recent years both as regards the diagnosis and treatment of abnormal heart action. The late distinguished consultant, Sir James Mackenzie, helped on the work mightily, though the fact that such conditions were subject to correction to a very great degree by a system of training was first brought out by myself sixteen years ago. Much the same ground of research regarding reflex action which Sir James traversed had been explored by myself previously ; nor did he realise that in some very important respects my findings had been much more practicably illustrative. It yet remains for the medical profession generally to learn the extent to which many faulty hearts can be trained towards sound action, and how easily so,

notwithstanding the references which I made to this branch of work in my book, *Advanced Suggestion*, published as long ago as 1918.

In cases of "blood-poisoning," whether the source is unknown or there has been direct communication as from a patient to a surgeon while he has been operating (sometimes through a mere prick), a large percentage of which are fatal, it is the promoting state of the blood existing beforehand that is the most important factor. The victims have usually for a long time been "run down" in condition. This has been proved in a series of cases which have been considered to be hopeless, beyond either surgery or any other means. Cure has been effected in some of these cases by the whole system being fortified through the administration of the following in rotation :

1. Egg flip with whisky, and rusk or without, followed by 20 minims of the tincture of perchloride of iron in water.

2. An hour afterwards : good beef gravy from underdone joint, with plain biscuit sopped in it or without, by teaspoonful slowly.

3. An hour afterwards : whisky, $\frac{1}{2}$ to $1\frac{1}{2}$ ounce, according to kind of patient ($\frac{1}{2}$ ounce to a delicate girl, $1\frac{1}{2}$ ounce to a strong man, or more), in either milk or barley water, sweetened or not, to taste, with biscuit to excite salivary fluid.

4. Egg flip, with rusk or without, followed by 20 minims of perchloride of iron (as before).

This type of sustaining is to be kept up every hour, or modified, in time, to more solid, according to fancy, the object being to restore vital energy by stimulating, nourishing, and easily digested food and medicine. It is the latter which is the most important—though impossible to act favourably without the food.

Fruit juice in water, or whole fruit chewed, should be given as often as there is any thirst; the juice should be diluted if it is very frequently asked for.

The above regimen has cured some previously pronounced "hopeless" and abandoned cases; but it has even succeeded in a case of lock-jaw, everything having been administered through an extracted tooth space. In most of such trial cases injections of antitoxins had previously been given and found to be useless, probably because the blood had been too impure for this form of treatment to answer. But even if antitoxins or operation were resorted to, the iron, and manner of feeding, will save lives which would not be saved without.

The writer of these pages has seen a large number of cases cured by the principles which have been set forth in the various chapters of this book, after they had been pronounced "hopeless" under prior reckonings, more especially where the mind and nervous system have been chiefly concerned.

Insomnia alone causes many to advance towards the incurably "mental"—which insomnia could be corrected in a very large proportion of cases, *without any drug whatsoever*, by neuro-induction.

No surgeon could deny, before any inquiring tribunal, that thousands of operations would be found unnecessary if proper means, either natural or medical, were adopted in due time. This statement will not offend such surgeons as are scientists first and operators when necessary.

As regards nervous or mental cases, it may be laid down that thousands of future healthy and useful lives are governable in young days by just a few sentence sequences of common sense being implanted: this statement may seem to be merely an aggravating commonplace until it is

pointed out that most medical men and parents are so sincerely anxious concerning illnesses that procedure frequently runs the gravest risk of being specially overdone. Treatment has in recent years been brought to such an excessive pitch of experimental enthusiasm that the simple trees can hardly be distinguished because of the blazing and smoky and more eye-striking woods there seem to be all around. Thus have certain impressive and convincing catchwords become the more attractive proposition ; sky and elevation advertisements of electric flash have drawn quick and firm decisions, while simple preventive measures have been overlooked in the helter-skelter of a too clever pursuit. The very word "preventive" is objectionable to some people.

Hence it has remained for a comparatively quiet observer to point out that many air-accidents are preventable by due recognition being given to the fact that both air-pilots and the travelling public may any day be seized with an illness *en route*, to cause panic and loss of judgment, while some defective engine might get the blame for the crash. Our authorities are now alive to this, and will therefore probably arrange so that a skilled attendant is provided on passenger planes, in order to lessen any such unfavourable eventuality.

It has remained for an independent research worker to establish the fact that the best cure for asthma is a process which lessens the sensitiveness of an over-sensitive and over-excited breathing mechanism, being also the quickest, cheapest, pleasantest, and most permanently effectual remedy in existence. When over-sensitiveness is reduced by a perfectly natural method of training the powers of breathing towards the normal, a few times, then asthma ceases to occur. The ideal time

for this wholesome correction to be applied is at an early date after first suffering, of course ; or, as soon as reasonably possible—say, within a year or so. But if a breathing system has been out of order so many years that it has created secondary troubles, then the latter may need more varied and particular attention. All of which things are proved “up to the hilt,” and will not be denied or disputed excepting by those who, for one reason or another, are not anxious to adopt anything new. Why is not such a curative process known generally ? Because there has been a bad habit in the past of considering that new discoveries on the part of independent research workers are the very things that should be kept back as long as possible ; this unfortunate vice is in future to be lessened by better medical organisation ; it arises largely from common jealousy and unseemly “elbowing.”

The first and best procedure in dealing with cases of disordered mind is to make a diligent search, not for disorder but for *whatever order there is still remaining*. This order should then be trained to obtain full command, the sufferer finally being able to become entirely self-possessed. In thus *seeking for sense*, nonsense is sure to be found easily—of whatever kind it may be. From time immemorial only nonsense has been searched for by experts, with the result that thousands of essentially and deeply sane people have been too pessimistically labelled, and too quickly sentenced to what has finally turned out to be their eternal doom.

In the near future it will be accepted generally by the medical profession that dyspepsias are caused by worry more than by anything else ; that exophthalmic goitre is commonly caused by nerve strain or mind shock ; that insomnia is most commonly the result of mind strain ;

and that these three forms of disorder can be more readily cured by neuro-induction than by any other method at present known.

Tuberculosis is chiefly caused by the vicious encirclement of deficient food (lack of vitamins) and depression, both of which make contaminated blood. Bacilli are but an incident. Lack of vitamins commonly begins in infancy, through the milk obtained from cows which also suffer from this lack because their food is not naturally obtained.

Something like 75 per cent. of all menstrual disorders are due to local and general nerve strain; this has been demonstrated conclusively by Neuro-induction tests; and confirmed by the lady doctor of a large high school, who made independent and extensive observations and issued recommendations accordingly. Yet operation is still a favourite treatment of the text-books.

The artificial sunlight treatment is doing two great things. It is persuading the ordinary reasoner to remember that most dogs and cats like warmth, and can teach us some of the ancient lessons of the sun-rays. It is asking all people to be simply sensible, on the one hand; on the other hand, the records of wonderful successes are bearing in upon us the fact that these can nearly always be obtained merely by a change of environment alone, from squalor to happy surroundings, so long as there is just enough food to be had. I have specially studied health in men who have worked in underground railway smoke eight to ten hours a day for twenty-five years, and at the end of it were amongst the strongest specimens ever seen. The chief point is that they liked their work and pay. And what about nocturnal animals?

Are they not quite happy and healthy? Still, I quite allow that the sun is most powerfully purifying. Therefore environment spells sun, not sun—some conditions, not one.

Christian Science is a well-meaning effort, but a short-coming and risky one against serious disorder: in this, as also in homeopathy, cheiropaxis or osteopathy, and bone-setting, there is eloquent evidence throughout of the force of suggestion. Bone-setting, however, requires a high order of manipulative skill to justify itself, such as Sir Herbert Barker has for so many years displayed.

Respiration culture should involve breathing in the very particular respect of nasal efficiency. Only a very few people are aware that the outer alæ of the nose are made for moving and exercise, which means that an easy free passage for air is essential. Unhealthy noses breed bacteria that are a fertile source of general blood contamination. A well-acting nose is one of the clear indications of good general health. The Rev. Allen Barratt, Claygate Vicarage, Surrey, is a well-known authority on breathing exercises. He has laid particular stress on the value of nasal-breathing efficiency. His course of training has produced many remarkable results.

Physical culture has extended to great lengths in the last few years. It has remained for an independent research worker, after twenty-five years' special labour, to discover new anatomical and physiological facts regarding the human voice and speech mechanism, so that more rapid and effectual methods of producing *bel canto* tone, facility and clear transmissibility of utterance, for both song and speech, have been formulated for the benefit of the millions of people who would wish to learn.

Training is made all the easier by means of a gramophone illustrative disc. The whole process depends upon selected essentials in *the training of certain muscles of the mouth, throat and chest*, whereby concentration comes from cancellation, and a short circuit system is arrived at. Voice culture is a very healthy form of exercise, as well as being immensely useful for everybody.

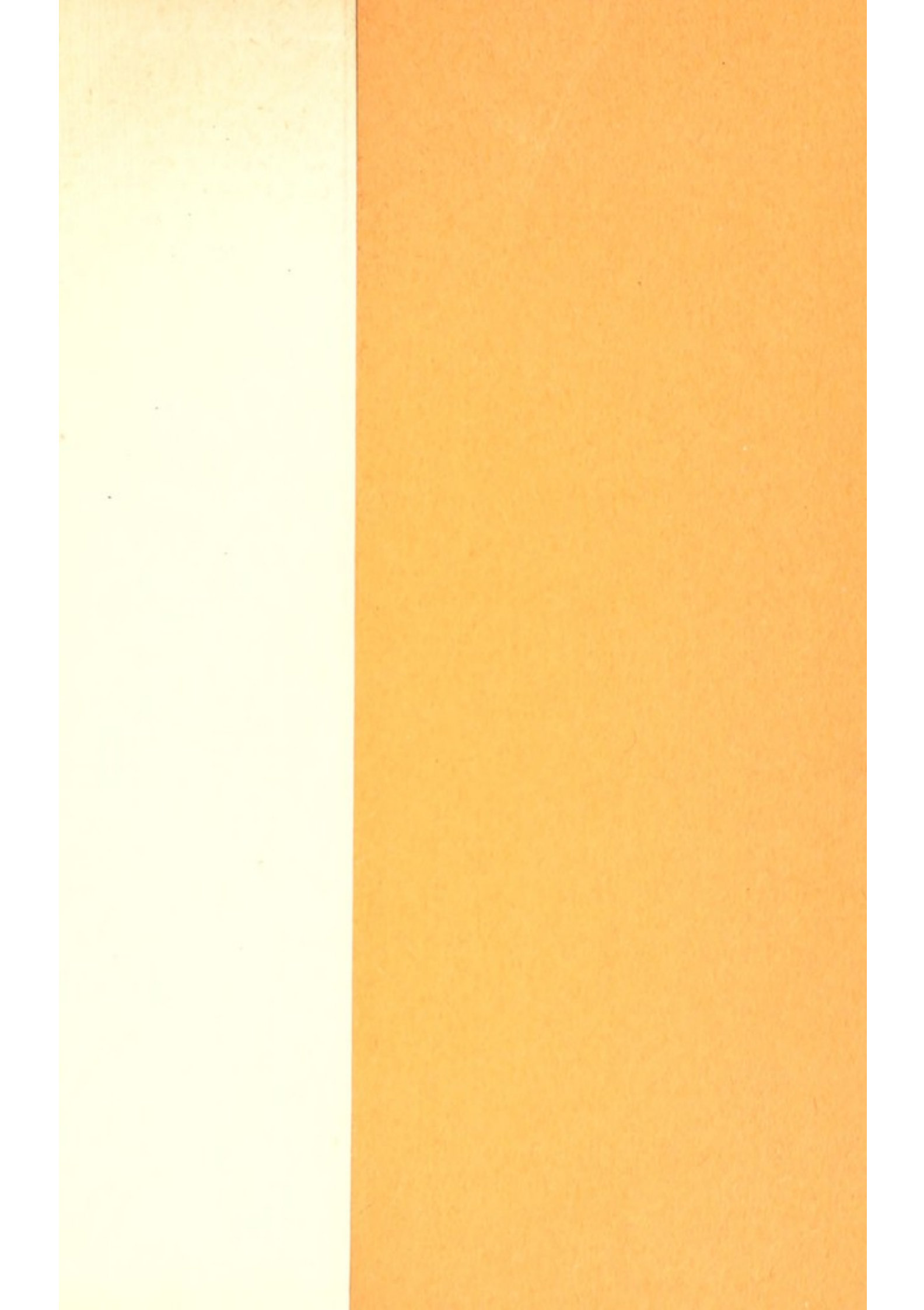
As far as I can gather from the literature on X-ray and Radium therapy, nobody seems to have been able to establish a perfectly certain degree of value for them as curative agencies of an entire type. Are cures ever claimed for them when all credit should properly belong to "suggestion" and the improved hygienic conditions under which they are placed? I am, of course, open to conviction.

Alcoholism spells thought weakness, otherwise mental unsteadiness, otherwise defective judgment and will-power. Therefore its first cure is mind-training. Anything else administered by way of medicines or injections, whether described as "gold" or not, may be effectual in slight cases, through "suggestion," physical assuagement or tonic effect, but it will be the mind that finally becomes and remains master in any case of cure. Incurable cases are assuredly those that cannot be influenced by sensible reasoning.

There are no new methods referred to in this book but what can easily be adopted by other medical men. Some are already adopting them most successfully.







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