OSTEOPATHY

PRINCIPLES & PRACTICE

VOLUME 1.

JOCELYN PROBY

Edited & Compiled by Russell John White

Institute of Classical Osteopathy

OSTEOPATHY:

PRINCIPLES AND PRACTICE

Volume 1

JOCELYN PROBY

Edited and compiled by Russell John White

Osteopathy: Principles and Practice

Volume 1

JOCELYN PROBY

Published by
The Institute of Classical Osteopathy
20 New Street
Horsham
West Sussex
RH13 5DU
www.classical-osteopathy.org

I.S.B.N. 978-0-9530294-8-8

Printed & bound by 1A Printers
1A Wellington Road
Gillingham
Kent ME7 4NN

CONTENTS

This book is dedicated to the memory of Jocelyn Proby,
M.A. (Oxon) B.Litt., D.O. (Kirksville)

3 March 1900 to 30 December 1993

"Affectionate memories of the tall figure with unerring hands"

"Go to an osteopath and then to an ordinary doctor ..... the moment the osteopath's fingers are on you, you know you are in technically skilled hands. You do not get that sensation from the ordinary doctor, and you cannot mistake it."

George Bernard Shaw

INTRODUCTION

"One hopes that developments and changes of fashion are the results of more enlightenment, knowledge and skill, but one fears that often they are not – change is not necessarily the same as progress"

Jocelyn Proby

Jocelyn Proby was one the great figures in osteopathy. A man of brilliant intellect, he graduated from Magdalene College Oxford and then went to the University of Toronto as a history don. While in Canada he became interested in osteopathy. A move to Kirksville followed and he added to his already impressive list of qualifications with a D.O.. He then returned to Canada and worked with Daniel Mackinnon and at this time became interested in the ideas of Henry Lindlahr, the two major influences on his work and thinking. With characteristic energy he later wrote several articles describing and advocating the use of Mackinnon's technique as well as editing and revising Lindlahr's four volumes on Natural Therapeutics. At the age of 62 when most people would be contemplating a comfortable retirement he was still intent on expanding his knowledge and organised a course of instruction in "Structural Integration", under the personal tuition of Ida Rolf, which he successfully completed.

However, Jocelyn Proby was much more than a brilliant mind. Those that knew him well, patients and colleagues alike, have many stories of his kindness and compassion. It was not uncommon for him to keep seriously ill patients at his home at Ballyraine House in Arklow, treating and nursing them himself. During one exceptionally difficult winter he daily drove several miles through deep snow in order to treat a seriously ill child, eventually restoring the child to health with a rare blend of exceptional skill and devoted care.

These stories give an important insight into his views on the scope of osteopathic treatment. Along with J.M. Littlejohn, John Wernham and others of that generation he believed that osteopathic treatment could be beneficial in a wide range of conditions, not merely for neuro-

neuro-muscul-skeletal problems. He took this belief into the treatment room and successfully proved the effectiveness of osteopathic treatment for many acute conditions. Patients came to him from all over Europe and beyond, drawn by his ability and integrity, but success never altered him. Returning to visit Dublin, some years after giving up his practice there, he was genuinely surprised when he was recognised with pleasure by grateful patients.

Throughout his career he worked quietly and untiringly to help establish osteopathy. In the 1930's he was one of the founders of the G.C.R.O., in the 1940's Vice Principal of the B.S.O., in the 1950's, President of the O.A.G.B.,and founder member of the Institute of Applied Technique (now the Institute of Classical Osteopathy). In the 1960's, 70's and 80's he continued to study, lecture, write and inspire all those osteopathic students who were fortunate enough to have contact with him.

In 1978 he returned from Eire to England where he continued to practice until past his 90th birthday. He died on the 30th December 1993 at the age of 90, and osteopathy had lost one of its great figures.

R J White
Asterley Hall
Asterley

August 1999

SCIENCE AND THE ARTS OF HEALING

We are supposed to live in a "scientific" age, and the word "science" and its adjective "scientific" are in constant use. The word literally means "knowledge", but it has come to have a more restricted meaning, though it is often used so loosely, and even dishonestly, that it is difficult always to be sure exactly what its meaning is. Yet it may be said that when the word is properly used it implies that knowledge is at least to some extent systematised or arranged, that it has been tested by observation and experiment, and, in most cases, that it has been correlated to certain universal principles or laws which govern that particular department of knowledge.

Before we consider in more detail the proper use of the words "science" and "scientific" in connection with the arts of healing, I think that it is necessary to draw attention to the fact that they are very often used in a most improper way. In common speech and in controversies in the newspapers and elsewhere, people very often say that a thing is "scientific" when they simply mean that they think it is true or sound or desirable or that it works well. Conversely, they say that it is unscientific when they do not believe in it or like it. Any one who has studied history knows that in certain past ages it was the fashion to conduct all controversy on the basis of religion or of scripture. If you wanted to make a point or clinch an argument you made quotations from the Bible and tried to show that your point of view was based on sound religion. That fashion has, for good or evil, altogether changed, and what we all want to do now is to show that we are "scientific". Sometimes we just simply state that we are "scientific" and hope that it will be accepted; sometimes we go further and elaborate scientific arguments to support our point of view.

As an illustration of the change which has taken place in the last two or three hundred years, it can be noted that the institution of negro slavery was seriously defended in the eighteenth century on the ground that negroes were the descendants of Ham who were intended by God to serve the descendants of Shem or Japheth. In the present century the Germans wished to dominate and enslave other peoples and to exterminate the Jews. The justification which, they gave to themselves and to

the world for their ideas and behaviour, was couched in scientific rather than religious terms. They even invented a pseudo-science in which Nordic master races were contrasted with other races which were regarded as being inferior and fitted only to serve the Nordics, if not to be exterminated altogether. These are, of course, extreme instances, but they show the dangers which may arise from using such words as "scientific" to support arguments or policies, which, even if they are sound or desirable, have nothing about them which can rightly be described as "scientific".

Technical language or jargon?

Another use of the word "scientific" which is misleading but which is very common, is when it simply means that the particular thing is expressed or can be expressed in language which is regarded as "scientific". Every branch of knowledge has acquired a technical language. This is on the whole a good thing, because it enables the subject to be written about or discussed with more precision by those who are engaged in the study of it. Technical language, however, has its dangers, because it enables people to hide their ignorance, even sometimes from themselves, and to deceive and impose upon the laity, and particularly upon the uneducated laity. I fear that technical or scientific language is very often used in this way, especially perhaps by doctors. Thus if I say, "I perform an appendectomy", it sounds much more "scientific" than if I say, "I cut out a portion of someone's guts"; but it is not necessarily any different. The only things which can determine whether an appendectomy is scientific or not is either the way in which it is done or the circumstances in which you do it or abstain from doing it. Merely to call a thing by a scientific or technical name does not either justify it or condemn it, nor does it render it "scientific" or "unscientific" in any sense in which the words have real meaning. This is perhaps very obvious, but it needs to be remembered and pointed out, for many practices or otherwise, are accepted, even by people who should know better, because they are expressed in technical or scientific jargon. The fact is that both error and truth can be expressed in scientific language, though a great many modern scientists (and doctors) seem to think that superstition and error are things which existed in the past but which suddenly came to an end when "science" freed itself from the trammels of priest hoods and theologies.

It is becoming very obvious now that this is not so. It is, for instance, the fashion for doctors to laugh at the practices and ideas of physicians of the seventeenth century and earlier periods, but not to realise that many modern medical practices may seem just as crude and barbarous to some more enlightened generation in time to come. Truth and wisdom emerge, when they do so, painfully and slowly; superstition, which results from fear ignorance and greed, is not the monopoly of any particular age, and it may be expressed in "scientific" terms quite as readily as in religious terms. Conversely, wisdom, truth and knowledge may be expressed in terms which are not scientific or which are not considered so at the moment. Many examples could be given, but it is perhaps enough to remind ourselves that there was once compulsory baptism but that now we have compulsory vaccination instead. I suppose each man must decide for himself whether the change has been an improvement, which of the two practices is the more "scientific" or which of them is the more superstitious.

Having thus dealt briefly with uses of the words "science" and "scientific" which are intentionally or unintentionally misleading, we can go on to consider the senses in which they are used legitimately. We can say that a thing is "scientific" because it is done in a way which has been proved by experience and experiment to be the best, safest and most satisfactory way of doing it in the light of the accumulated knowledge which is available to us. Thus there are scientific and unscientific ways of doing the same thing, such as performing a surgical operation or administering a drug. It should be noted that if a thing is to be done it is obviously best to do it "scientifically" if we know how. However, we should beware lest we call traditionalism and conservatism being scientific, and we should avoid thinking that to do a thing "scientifically" is enough. To be truly scientific we must do it for scientific reasons as well as do it scientifically. It is quite possible to do a very unscientific thing scientifically, and vice versa.

Universal Law

This brings us to another meaning of the word "scientific" which is, I think, its most important and, so to speak, its most real meaning. All science is based on the idea that we live in a universe which is governed and proceeds according to law. If we did not believe this it

governed and proceeds according to law. If we did not believe this it would be useless to try to build up "sciences". The aim of the scientist is, as has often been said, to dominate Nature by first learning to obey Her. There is really no limit to this process. A great many principles and laws of nature have in fact been discovered, and no doubt many more will be discovered in the future. Actually, most of these laws when they are discovered are found to be be very simple, though the application of them may require a great deal of technical knowledge, thought and skill. Usually the men who have discovered the great natural laws have been what is called "men of genius", that is to say they have discovered them very largely by a sort of inspiration, though it has been inspiration based on a great deal of study, knowledge and observation and checked and confirmed by experiment. Such names as Newton, Lavoisier, Faraday, Edison and many others occur to the mind. When great natural laws are discovered they may have infinite applications. They will enable whole new "sciences" to be built up, all sorts of new techniques to be invented and man to obtain much greater command over Nature in the particular spheres to which the laws apply.

Thus the ultimate and most real meaning of the word "sciences" is the discovery and application of great natural laws or principles governing the particular department of knowledge in question. A thing is "scientific" when it is done in accordance with universal principles which we understand at least in part. When we do not understand the principles we act, if we act at all, empirically. It is not necessarily a bad thing to act empirically and, indeed, we are often compelled to do so unless we are prepared to do nothing in a great many situations which obviously call for action of some kind. In actual fact, mankind has often learnt to do things empirically before it has learnt to do them scientifically or to understand the laws and principles governing what it was doing. However, the fact that we can do a certain thing or deal with a certain situation by empiricism does not, if we are scientifically minded, relieve us of the duty of trying to find out the "scientific" principles governing what we are trying to do. If we do discover those principles it will almost certainly lead to a change for the better in what we do or the way in which we do it.

Osteopathy is Scientific

If we can obtain a clear idea in our own minds what we mean by the words "science" and "scientific" it should be a great help to us in thinking intelligently about the healing arts in general and Osteopathy in particular, for we shall be in a better position to make up our minds which forms of treatment and which individuals and which schools of thought can claim to be "scientific" and which are merely empirical, however respectable or even good that empiricism may be.

We can, I think, claim with justice that Osteopathy is essentially scientific in both the senses in which the word can be properly used. Manipulation and other forms of manual healing are undoubtedly very old, but in our osteopathic technique we have sought to systematise and build up a tradition of manipulation and to correlate what we do with what is known of anatomy, physiology, pathology, mechancis and other sciences. We can claim to do manipulation "scientifically" just as a qualified surgeon can claim to do a surgical operation "scientifically". This does not, of course, mean that we may not and should not look for improvements and enlargements in the technique of Osteopathy. It is to be hoped that as time goes on we may be able to do much of our work more quickly and more easily than we do at present, and that we may be able to attempt and perform things which are now beyond our powers. We have, however, already laid a foundation and can say with truth that we have begun to build up a science of manipulative technique.

But Osteopathy can also claim to be scientific in the more important sense that it is based on a general principle and that its technique is, or should be, applied in conformity with that principle. The principle is that the human body is a mechanism in which structure and function are correlated to one another, so that any departure from the normal, in structure or mechanics is a potential cause of disease or dysfunction in some of the organs or parts of the body. When structural and mechanical defects are not the only or the direct cause of disease they are very frequently a means by which the natural curative forces of the body are prevented from operating. There are, therefore, very few diseases or conditions in the treatment of which Osteopathy cannot play a useful part. Because we have discovered one of the great

principles on which health depends, namely, perfection of body structure and mechanics, we can claim to be treating disease scientifically when we seek to make body structure and mechanic as perfect as possible.

Other Treatments

But if Osteopathy can rightly claim to be scientific, both in its basic principle and in its technique, what can be said of orthodox medical treatment? This is not an easy question to answer. There are a great many techniques and treatments in common use by doctors which are highly scientific in the sense that they are the result of a great deal of thought and experiment and are carried out in a way which accumulated knowledge has shown to be best. On the other hand, it is very difficult to find any general principle of any kind upon which ordinary medical practice is based. (This does not apply to the homoeopaths who do administer drugs in accordance with a definite law or principle.) Fundamentally, it would seem that nearly all treatments which are in common use today are empirical and symptomatic, although the empiricism is based on a very considerable knowledge of many sciences. No doubt a large measure of empiricism is inevitable at the present stage of our knowledge, but we should not deceive ourselves into thinking that things which are empirical are scientific, and we should always be searching to discover more about the basic principles on which health and disease depend and to base our treatment on those principles. Only in proportion as we discover basic principles can we hope to build up a genuine science of medicine. The thing which makes agreement and co-operation so difficult between osteopaths and members of the orthodox medical profession is that so few of the latter seem even to see the desirability of discovering and applying fundamental principles, although our knowledge of many subsidiary sciences has now reached a point where it should be possible to lay the foundations of a science of medicine or, to put it another way, a science of health. We osteopaths are very certain that in our osteopathic principles and technique we have the beginning of, and a very important part of, a real science of medicine, though we must recognise and expect that other basic principles will be enunciated on which other techniques of treatment will be built up. There are signs that this is already beginning to happen as the result of the work of pioneers both

inside and outside the orthodox medical profession. To discuss this fully would be a big matter.

In conclusion it should be pointed out that, however certain we may be that Osteopathy is "scientific" there is a sense in which it can be made more scientific than it is, and it is our duty to try to make it so. The essence of the "scientific method" is that we observe certain facts or phenomena, then induce some general law or principle from them, and finally check and prove that law beyond all reasonable doubt by further observation or experiment. The "scientific method" may not be the only method of arriving at the truth, but we must accept the idea that it is the method by which a truth must be established and gain general acceptance in the modern world. Osteopaths have nothing to lose and a great deal to gain by scientific investigation provided that the investigation is carried out honestly and reasonably, and without prejudice. We know enough to be able to say with certainty that there is a definite functional relationship between sound structure and mechanics and sound function and health, but we have to convince the scientific world that this is so and we still have a great deal to learn about the mechanism by which our principle operates in the living body. The application of the "scientific method" will undoubtedly help us to convince others and it will lead, almost certainly, to an improvement in our own methods, and technique, for we shall come to a better understanding in terms of physiology and pathology of what we are achieving or trying to achieve. This will lead to Osteopathy taking its proper place in the new science of health which is struggling to be born.

ESSAY ON OSTEOPATHY

• *. . the whole body fitly joined together and compacted by that which every joint supplieth, according to the effectual working in the measure of every part, maketh increase of the body unto the edifying of itself in love.*

Ephesians iv i6.

Although manipulation has been a method of healing employed from time immemorial both in the West and in the East, Osteopathy as a distinct school of practice is of recent origin. Its founder was Andrew Taylor Still, an American doctor, who was born in 1828, first enunciated his theories in 1874, and died in 1917. During the second half of his life he devoted his energies, in the teeth of much opposition, to developing his ideas and methods and to founding schools for teaching them to others. Osteopathic practitioners are now numerous in the United States, and are to be found in increasing numbers in other parts of the world.

A. *Fundamental Principles*

Osteopathy is based on two principles, though certain secondary principles, as well as a special type of technique, naturally follow from them. The first of these principles is the natural self-sufficiency of the human body, and the second is that normal structure and normal function go hand in hand.

Still's belief in, and insistence on, the natural self-sufficiency of the human body were, in themselves, nothing new. The *vis medicatrix naturae* has been believed in and relied on by the great physicians of all ages, and Hippocrates himself laid it down that the whole aim of the science of medicine must be to study natural processes and assist them 'so that the sick man may conquer the disease with the help of the physician'. Still, however, re-stated the principle at a time when it very much needed to be re-stated, and he discovered a new way of applying

it in practice. The belief in the self-sufficiency of the human body, implies that health, and not disease, is the natural heritage of man, that he is not destined for ever to fight a losing battle against sickness and physical decline, and that he can, by taking proper measures, maintain and improve his own health and hand on a good heritage to his children. The function of the doctor is not so much to fight disease as to promote health and to put the body in a condition to defy or overcome disease. It is the inherent vital forces within the patient himself that alone can overcome disease, and all that the doctor can do is to assist them, direct them, or liberate them.

Still's second principle, that normal structure and normal function go hand in hand, was more original. He was a profound student of anatomy and a very capable mechanic, and, after many years of thought and study, he became deeply impressed with the perfection of the body from an anatomical and mechanical point of view. He saw that the skeletal framework of the body was designed to give support combined with mobility in a very wonderful way, that the relations of the soft tissues, blood vessels and functioning organs to this skeletal framework were very ingeniously contrived, and that the whole organism was under the control of a central nervous system which was itself in particularly close relation to the skeletal frame-work. Provided that the body received natural and wholesome food, that it was not subjected to undue strain or injury and that poisons of all kinds were avoided, there seemed no reason why it should not remain healthy throughout the natural span of its existence.

The close connection between structure and function is a fact in nature which will seem to be more important the more we study it. Anatomy and histology cannot be divorced from physiology, for physiology is little more than anatomy in action, and when physiology gives way to pathology it will always be possible sooner or later to observe gross or microscopic changes of structure. In some cases the structural changes may be the result of the functional changes and in other cases they may be the cause, but it is certain that normal structure and normal function are found in health and that abnormal structure and abnormal function are found in disease. Perceiving this, Still thought that it should be possible, by making the structure of the body as normal and perfect as possible, to maintain or restore normal function; because even in cases

where abnormalities in structure were not the primary or sole cause of disease they were the accompaniment of it and helped to maintain it or to prevent the natural forces of the body from overcoming it.

B. *Secondary Principles*

The next idea to which Still was led by his study of anatomy and physiology was that the body must be regarded as a whole and that it is almost impossible to exaggerate the extent to which its parts are inter-related. Changes in structure and function which take place in one part of the body are not purely local in their effects; they are in fact bound to produce changes in other parts which in their turn will produce further reactions. The reason for this is that all parts of the body are under the control of the nervous system and that all parts depend for nutrition and drainage on the circulatory system, which in its turn is largely under nervous control. All life and activity in the human organism can be regarded as responses to stimuli of one kind or another and it is through the agency of the nervous system that these stimuli operate. The nervous system has many parts, but it is also very distinctly a whole, so that it is impossible for one part of the body to be deranged without other parts being affected in a greater or lesser degree. This idea that all pathology is to some extent systemic as well as local has an important bearing on the question of treatment. Treatment should be general and systemic as well as local, and it is possible by directing treatment to one part of the body to produce an influence on another part. There are indeed many conditions which it is impossible or unwise to treat directly, but which can be successfully treated by directing our efforts to other parts. A knowledge of anatomy and particularly of the nervous and circulatory systems will give us a guide as to how and where we can most profitably treat.

Having become convinced of the close connection between structure and function, the next step which Still had to take was to devise a method of treatment which would remove the structural abnormalities which he found in association with disease. He first turned his attention to the skeletal framework of the body and he observed that all kinds of pathology were commonly accompanied by abnormal position of the bones when at rest and by restriction of the normal mobility of joints. He found also that disease symptoms tended to disappear in a remark-

able way if the normal position and mobility of the bones were restored. This he found could be done by means of passive movements and the application of leverages and force in suitable ways. He next turned his attention to the soft tissues and found that another accompaniment of pathology was an abnormal condition of muscles and ligaments. These would sometimes be contracted and over-rigid and sometimes relaxed and deficient in tone. Usually such abnormalities were found in conjunction with the other abnormalities which he had noticed in the bony structures, and it was clear that the two were connected. If the bones became abnormal in position and mobility the soft tissues connected with them showed changes; on the other hand the bones were more prone to become abnormal if the soft tissues on which they depended for support and mobility were in an abnormal state. It was, however, possible in many cases to restore the soft tissues to their normal state by kneading, pressure and manipulation. In some cases it proved to be more important to work thus on the soft tissues than to deal exclusively with the bones, but in other cases the real source of the trouble seemed to be in the bones and joints and the soft tissues soon returned to normal of themselves once the natural position and mobility of the bones had been restored. Here was a pathological state in which both bones and soft tissues were involved, but in which sometimes one and sometimes the other was of primary importance[1].

The success which Still had in treating every kind of disease by normalising the framework of the body confirmed him in his belief that the structural abnormalities which he had learnt to recognise were much more than local in their effects. Believing, as he did, in the natural self-sufficiency of the human body, he felt that there was no reason why the organs of the body should become diseased or to function properly provided that the quality and quantity of the blood supply to them was adequate and that the drainage from them of their waste products was efficient. He expressed this idea in simple language by saying that 'the rule of the artery is supreme'. It was however, impossible to consider the circulatory system apart from the nervous system; the two were in close connection both anatomically and functionally. The only explanation of the cures which he effected by his

[1] It has been well said that the object of osteopathic technique is the elimination of abnormal tension wherever it can be found in the body.

manipulative procedures was that the structural abnormalities which he had found and removed were maintaining or producing disease by interfering with the normal blood and nerve supply to the various parts and organs of the body. The exact way in which these effects were produced was not immediately apparent, and indeed still remains something of a mystery; but that they were produced he could have no doubt.

C. The 'Osteopathic Lesion'

The name which has been given to the abnormalities which Still discovered and treated is 'osteopathic lesions' and it is here necessary to say a little about the symptoms, clinical signs and pathology of the 'osteopathic lesion', and to suggest certain possible explanations of the way in which it produces its effects. It is not intended, however, to consider these questions in great detail, because that has been done elsewhere in books specially written for the purpose.[1]

In one sense an 'osteopathic lesion' is 'any structural perversion which produces or maintains functional disorder' and it is not essential that a bone or joint should be involved in it. A lesion, for instance, may be muscular or ligamentous, or in certain circumstances a viscus or organ may act as a lesion. The typical 'osteopathic lesion', however, is a bony lesion and involves one or more bones and joints and the soft tissues connected with them. It is by the bony 'lesion', and particularly the vertebral lesion, that osteopathy as a school of practice must stand or fall. The bony lesion is essentially an acute or chronic joint strain and it has certain very definite symptoms and clinical signs, some or all of which are present in all cases. The most important of these are as follows:

1. Some abnormality in the position of the bones when at rest.

2. Some abnormality in the mobility of the joint. Mobility is

[1]The nature and pathology of the osteopathic lesion is considered at length in the *Report on the Scientific Basis of Osteopathy* by Dr. Kelman Macdonald. The way in which the lesion produces its various effects is especially well discussed in *The Osteopathic Lesion* by Macdonald and Wilson (Heinemann, 1935), particularly chap. iv

either restricted or unduly increased. This symptom is present even when the actual position of the bones is normal.

3. Tenderness of soft tissues and over the prominences of the bone itself. This may or may not be accompanied by pain on motion or when at rest. Pain and tenderness are more marked in acute lesions than in chronic.

4. Some abnormality in the feeling of the soft tissues on palpation. In the acute stage the tissues are usually contracted, though this fact is masked by a superficial oedema; later there is a tendency for them to become more and more fibrotic.

5. Some abnormality in the feeling and appearance of the skin over the lesioned area. In the early stages it tends to be flushed, moist and hot, but later it grows dry and anaemic[1].

In addition to the symptoms and clinical signs of 'osteopathic lesions' mentioned above, a good deal has now been discovered about the pathological changes which take place in the tissues themselves. The most important of these are as follows:

1. A condition of relative acidosis in the area of the lesion.

2. A condition of oedema in recent lesions which gives way more and more to fibrosis as the lesion gets older.

3. Areas of petechial haemorrhage (per diapedesin) in certain of the soft tissues surrounding the lesion.

4. Changes in the tonicity, irritability and staining reactions of muscles.

5. Changes in the articular tissues, including a thickening of the synovial membrane and abnormalities in the amount of synovial fluid.

[1] An osteopath of many years 'experience writes: 'In very old-standing lesions there is sometimes a sort of stellate arrangement of the veins on the skin, as if the surface veins were trying to come to the aid of the deeper congested tissues.'

6. Changes in the intervertebral disks, which lose their shape and elasticity and show degenerative changes in various degrees.

It is now necessary to consider the way in which such structural abnormalities produce malfunction and disease. Osteopathy, in common with other systems of treatment, must ultimately be judged by its clinical results and by the soundness of the fundamental principles on which it is based, but this does not mean that we should not try to discover the way in which 'osteopathic lesions' of all kinds produce their evil effects. In one sense osteopathy may be said to be lacking in scientific proof, but this does not mean that it is necessarily unscientific. Our knowledge of neurology, physiology, biochemistry and other allied sciences is not yet sufficient completely to explain osteopathic phenomena or the results which we get from osteopathic treatment, but there is nothing in these sciences in their present stage of development which would lead us to suppose that the principles and methods of Still are false or unsound. Indeed, certain recent advances and discoveries in science have done much to confirm and explain many of Still's contentions and to enable them to be stated in a more scientific way.

It seems improbable that the effects produced by osteopathic lesions are susceptible of one simple explanation, which is the same for all cases. Mechanics, chemistry and physics are so closely bound up together in the human organism that we cannot hope to arrive at the truth by approaching the problem of the osteopathic lesion from one angle alone.

At the present time there is a tendency in the osteopathic profession to discount the idea that structural abnormalities can produce pathology by simple mechanical means. Some early osteopaths, though Still was not among them, gave currency to the idea that osteopathic lesions of the spine could effect a complete or partial blockage of nerves and blood vessels by direct pressure on them as they emerged from the intervertebral foramina. This idea, however, is quite exploded and cannot be sustained. Actual dislocations and organic disease of bones can sometimes produce such effects, but subluxations and osteopathic lesions which do not take the bones beyond their normal range of motion could not do so.

It would, however, be rash to take the view that there are no cases in which structural abnormalities produce malfunction and disease in a very direct manner. Every student of physiology is aware of the important functions performed by the normal movements of the diaphragm in the maintenance of health and of proper functioning of important abdominal and thoracic organs. Malposition and loss of flexibility of the bones forming the thorax is one of the most frequent causes of bad breathing and failure of the diaphragm to function as it should. Here is an example of a very direct way in which osteopathic lesions can affect the function of the most important organs of the body, such as heart, lungs, liver and intestines. Macdonald and Wilson in their book *The Osteopathic Lesion* have drawn attention to the fact that the vascular symptoms sometimes found in cases of cervical rib are hardly explainable except on the ground of direct pressure on sympathetic nerves and that such symptoms can often be abated by manipulative measures. Again, it seems quite possible that severe subluxations of the atlas and other upper cervical vertebrae and the accompanying muscle tensions can produce actual interference with the blood flow to and from the brain. It is true that the existence of vasomotor fibres to the blood vessels of the brain has now been demonstrated and that the ganglia in which they originate are in very close relation to the cervical and upper dorsal vertebrae, but it is doubtful whether these facts alone can always explain the spectacular results sometimes produced in grave mental conditions by correction of osteopathic lesions in the upper cervical area. The vertebral arteries and veins are in particularly close relation to the upper cervical vertebrae, and in fact pass through foramina in their transverse processes, and it seems therefore quite reasonable to contend that subluxations of the upper cervical vertebrae can produce a direct interference with the blood supply to parts of the brain. [1] Instances of direct mechanical interference can be multiplied, but when all is said and done they are only capable of explaining a proportion of the effects produced by some osteopathic lesions.[2]

[1] See Case Report by Dr. Ray M. Russell, *British Osteopathic Review*, November, 1934; also case mentioned by A. T. Still, *Autobiography, p. 107.*

[2] Oedema, fibrosis and muscle tension in varying degrees are the accompaniments of all osteopathic lesions. These, no doubt, exert some mechanical influence on nerves and blood vessels, but it cannot be said with any certainty to what extent this interferes with their functions.

Another angle from which the osteopathic lesion can be approached is that of biochemistry. It has been shown that the soft tissues involved in an osteopathic lesion are in a condition of passive congestion, relative acidosis or low grade inflammation, and it has been suggested that there is a change in hydrogen ion concentration sufficient to affect the conductivity of nerve elements passing through the area. Many of the sympathetic nerve elements are extremely delicate, and the post-ganglionic fibres are non-medullated so that it cannot be said with certainty that they are not affected by abnormal chemical conditions prolonged over a period, especially in cases where synapses occur in the tissues influenced by the chemical change. On the whole, however, it seems improbable that such chemical changes exert a very great influence, and there can be little doubt that it is through the mechanism of nervous reflexes that the osteopathic lesion produces most of its effects.

It has long been recognised by clinicians and symptomatologists that there is such a thing as the viscero-somatic reflex. That is to say that a nerve impulse arising in an organ or viscus can stimulate other (somatic) nerve fibres so as to produce pain, contractions of muscles and trophic disturbances. The osteopath believes that the reverse also is true, and that the somatico-visceral reflex is more common and more important, though naturally far less easy to detect or observe. A considerable amount of evidence already exists for the existence of such a reflex, much of it having been collected by persons quite outside the osteopathic profession and free from its influence. This evidence is well summarised by Macdonald and Wilson in Chapter iv of *The Osteopathic Lesion,* and it is sufficient here to point out that the tissues surrounding joints and the synovial membranes themselves are well supplied with afferent nerve endings which there is every reason to suppose capable of producing reflexes over related parts of the sympathetic nervous system. These nerve endings can be stimulated in various ways by the abnormal conditions of the lesioned area. In some cases the stimuli may be due to the altered chemistry of the tissues, and in others to abnormalities of tension or position, but as long as the lesion continues it will tend to produce effects which will increase rather than diminish with time, on account of the phenomena of summation and facilitation which are common to all nervous reflexes.

A full explanation of the way in which osteopathic lesions produce their effects cannot be given at the present stage of our scientific knowledge of the body and its processes, but it can be safely affirmed that nervous reflexes of various kinds play a predominant part. There is plenty of evidence, both clinical and experimental, to support the osteopathic contention that the chemical, physical and tissue changes which take place around a lesioned joint are not confined to that area but are reproduced in the organs and viscera which receive their innervation from the same or closely related spinal segments. There is nothing remarkable in this when we consider to what an extent the functioning of all organs is dependent on nervous impulses either directly or through vasomotor nerves acting on their blood supply. The immediate effects of a lesion will no doubt be to produce purely functional trouble, but if this is prolonged over a period it will render the tissues and the body as a whole more susceptible to infectious and organic disease.

D. *Application of Osteopathy to the Treatment of Disease.*

In order to understand the relation of osteopathic pathology and osteopathic treatment to various kinds of disease conditions, it is necessary to classify the different kinds of osteopathic lesions. This may be done as follows:

Primary lesions. These may be:

(1) Traumatic, that is to say, due to specific injuries, blows or sprains.

(2) Postural, that is to say, due to bad posture or repeated minor strains or injuries.

Secondary lesions. These may be

(1) Compensatory, that is to say, compensatory to or induced by some other lesion elsewhere in the body framework. (The spine, for instance, though composed of many separate units, is still a physiological and mechanical whole. Derangements of one part of

it will produce stresses, strains and derangements of other parts.)

(2) Reflex, that is to say, produced by disease or abuse of some organ or viscus.

Under these headings it is possible to classify for practical purposes all the structural abnormalities which are met with in all kinds of disease, and for all, or nearly all, there is an appropriate type of osteopathic treatment which should be applied to aid the body in its difficulties and help it to return to normal. The treatment will vary greatly according to the condition of the patient and to the type and origin of his osteopathic trouble. Moreover, in some cases osteopathic treatment will be of primary importance, while in other cases it will be used merely as a valuable aid or adjunct to other forms of treatment, and in a few cases it may be entirely contra-indicated. It is, however, hard to name any disease conditions, either chronic or acute, in which there is not an osteopathic procedure which is of real value for some purpose at some stage.[1]

Let us consider first the primary lesions. It has always been the view of osteopaths that a great proportion of disease and ill-health is traumatic or postural in origin, although this may not be apparent to the patient himself or to physicians who are unfamiliar with osteopathic thought and diagnosis. The diversity of man's occupations and activities, and the fact that he is not perhaps adjusted as completely as he might be to the erect posture, render him very liable to strains and injuries affecting the framework of the body. Injuries may soon be forgotten and faults of posture may pass unnoticed, but they are capable of starting a chain of causes which can lead eventually to serious malfunctions and even to organic disease. The reason for this is that an uncorrected osteopathic lesion tends to be cumulative in its effects. The malfunctions which it produces in viscera, glands, muscles and other organs not only injure the body as a whole, but by vicious reflexes help to maintain and make worse the very lesion which causes them. Also a lesion in one part of the bony framework frequently produces secondary lesions elsewhere, which in turn have their ill effects. Vicious circles are thus produced

[1] For further discussion of the contra-indications to manipulative treatment see below.

which cannot fail in time to lead to serious consequences. In treating cases of this kind it is clear that osteopathic manipulation is of primary importance because it can go to the very origin and root of the trouble.

When the osteopath is confronted with secondary lesions of reflex origin, it is obvious that he is on less certain ground, and that his manipulative treatment may need to be supplemented by other measures. There is strong evidence to support the view that people who are osteopathically sound have better resistance to disease than those who are not, but there can be little doubt that even the osteopathically sound contract infectious diseases and suffer from the results of wrong living in various ways. When a particular organ or part of the body becomes diseased, irritated or overtaxed, reflexes originate in it, which produce symptoms in the related spinal area. If the irritation is continued for a sufficient time genuine osteopathic lesions will result and they will in turn tend to maintain disease conditions in the organ or part where the trouble originally began. The slowness or incompleteness of recovery after acute disease is often due to the continued existence of osteopathic lesions which were induced by reflexes during the acute attack; a fact which goes a long way to explain the usefulness of osteopathic treatment in convalescence. When we are dealing with reflex lesions we are not dealing with the basic cause of disease, but in spite of this fact osteopathic treatment may be of the greatest importance and produce the most excellent results. It must be remembered that, although all disease does not have a spinal origin, nearly all disease does have spinal manifestations, and it may easily give rise to a vicious circle in which the spinal pathology plays an all-important part. Osteopathic treatment is often the easiest, and sometimes the only, way of breaking the vicious circle and enabling health to be re-established.

This is not the place to discuss in detail the application of osteopathic measures to particular diseases, but a few words may be said about the use of osteopathy in certain general categories or groups of diseases.

(a) Manipulative Surgery. A distinction has often been drawn between osteopathy and manipulative surgery, but it would be more true to say that manipulative surgery is a part of osteopathy. 'Manipulative Surgery' is the name which has been given, not perhaps very happily, to various manipulative procedures which are used in the treatment of

joint injuries and dislocations and of misplacements and fixations of bones.[1] It is a reproach to both the osteopathic and medical professions that much of the best work along these lines is done by bone-setters who are quite without formal qualifications. At the present time the medical profession is not willing to admit that there is any truth in osteopathic theories of disease causation, but it has been forced to recognise that manipulation is indispensable or useful in many kinds of joint injuries. Orthopaedic surgeons have begun to study manipulation and to practise it. At present there is only very little realisation among them of what can be achieved by manipulation and of how it should be applied. The result is that far too many open operations are performed in cases where manipulation would achieve far better results, and when manipulation is employed it is often not employed in the best way. Too much manipulation is done under anaesthetics, which is usually unnecessary and greatly increases the possibilities of doing damage. Manipulations are also too violent and the plaster cast is too freely used.

The general tendency of manipulative surgeons is in fact to be in too much hurry, and to try to achieve at one time what should be done more gradually and gently. They regard their problems too much from the angle of the bones alone and are apt to forget the importance of restoring the soft tissues to full function and health. The interest of orthopaedic surgeons in manipulation is, however, a welcome sign, and it is to be hoped that in time their methods will improve and that their successes will encourage them to apply manipulative methods more widely. Manipulative surgery may well prove to be the means by which osteopathy will make its way into orthodox medical thought. Faulty posture is already receiving a good deal of attention in medical circles, and its connection with poor health has not passed altogether unnoticed. It is not a very long step from this to the acceptance of the osteopathic lesion as a cause of disease. Much can be done for the

[1] It appears that the term 'Manipulative Surgery' was first used by Sir Herbert Barker to describe the particular type of manipulative technique of which he was the exponent. Subsequently the expression was adopted by many orthopaedic surgeons who made a study of manipulation or who acquired knowledge of it from unorthodox sources.

It was pointed out by Dr. Kelman Macdonald in his evidence before the Select committee of the House of Lords (1935) that the medical profession have to some extent accepted and studied manipulative surgery , but that so far the possibilities of manipulative medicine have not been explored except by the osteopaths.

improvement of posture by means of exercises and appliances, but in many cases at least these should be combined with manipulation if the best results are to be obtained. Is it too much to hope that in the future the orthopaedic surgeons as they perceive the need for a wider use of manipulation, will be content openly to learn from bone-setters and osteopaths who have been studying and applying these methods for many years? At present the knowledge of manipulative methods in the medical profession is exceedingly fragmentary and rudimentary. It is most unfortunate for the public that the experience already acquired by the osteopathic profession in practice and teaching should not be made more widely available.

(b) Osteopathic treatment in functional disease. A large percentage of the cases with which every doctor has to deal are cases of functional disease, and yet there is seldom much that can be done for them by orthodox methods. A very large number of these functional troubles are directly due to osteopathic lesions and will yield readily to osteopathic treatment, either by itself or in combination with other natural methods such as diet and hydrotherapy. The failure to appreciate the role of osteopathic lesions in producing disease symptoms has led to many mistakes in diagnosis and has caused many patients to be considered 'neurotics' or psychopathics when in fact their troubles had a definite physical cause.

(c) Osteopathic treatment in acute disease. It is very commonly thought that osteopathy is only useful in correcting the results of injuries and in treating certain functional and chronic conditions, and yet it was in the treatment of acute diseases of all kinds that Still and his early followers obtained some of their most spectacular results. He always took the view that immunity largely depended on structural perfection and that the body could of itself produce all that was necessary to enable it to get the better of acute disease, provided that it was in proper adjustment and that the blood and nerve supply to every part were functioning as they should. Our present knowledge of immunity is very scanty, but there is nothing in it which runs counter to these ideas and much which would seem to support them, although there are not many who would contend that Still has given a complete answer to the problem of immunity. If once it is admitted that structural abnormalities can interfere with function and with blood and nerve supply, it seems hard to deny that resistance to disease is lowered

by such abnormalities. An organ or part of the body which has suffered for some time from a blood supply that is deficient in quantity or quality must be specially prone to disease, and a body in which the glandular, excretory and other vital functions are not being normally performed must be at a disadvantage in the crisis of an acute disease. It has been found in practice that a tendency to contract a certain acute disease, such as bronchitis, can often be overcome by osteopathic treatment. The fact that post-operative pneumonia is practically unknown in osteopathic hospitals is also evidence that osteopathic treatment is valuable as a prophylactic against acute disease.

But whatever views we may hold on the relation between structural integrity of the body and immunity, there can be no doubt that osteopathy has valuable contributions to make to the treatment of acute disease once this has arisen. Acute disease is both systemic and local, that is to say, the whole body is involved as well as the particular part or organ which is the special seat of the disease. When there is danger it is usually because too great a strain is thrown on the body as a whole, and on certain vital organs in particular, before the local inflammation has time to run its course. Osteopathy can be used in various ways both to assist the local inflammation to a natural conclusion and to support and aid the body as a whole in the crisis.

When a certain part or organ of the body is the seat of an acute inflammation or disease there is a congestion of body fluids in that area. This congestion is not in itself necessarily harmful and is indeed part of the process by which nature is seeking to get the better of the disease, but it is generally very essential that the natural process should be helped and guided if the congestion is not to be unduly prolonged and become dangerous in character. The local inflammation, whether or not it is accompanied by bacterial action, will not proceed favourably without a generous supply of arterial blood and an efficient venous and lymphatic drainage to carry off the toxins and waste products. Manipulation, especially of the bones and soft tissues of the related spinal areas, is a powerful means of aiding the circulatory mechanism of the diseased area. In nearly all cases the related spinal areas will be found to be rigid and contracted, and the removal of this rigidity and contraction by pressure or gentle manpulation has been found to exercise a very beneficial influence on the progress of the local inflammation. This can be explained in the following way. When an

organ or part of the body is acutely diseased reflexes are initiated in it, which produce rigidity in the related spinal area and eventually give rise to osteopathic lesions. These lesions tend in turn to affect the blood and nerve supply to the diseased part, and also to related segments of the spinal cord which are already fatigued and affected by toxaemia. Osteopathic treatment normalises the spinal tissues and enables the patient to make a more vigorous and effective response to the local inflammation: circulation and drainage are aided and abnormal reflexes are reduced or eliminated.[1]

But apart from the local manifestations of acute disease there are also systemic reactions, which often require to be aided or controlled. All acute disease is accompanied with more or less toxaemia, which tends to produce fever, to throw a strain on the heart and lungs, and to make special demands on the eliminative organs. Manipulative treatment properly applied can aid the body in all these respects and help to prevent the appearance of complications. Such treatment is mostly directed to the spinal areas related to the heart, lungs, kidneys and bowels, and to restoring the normal mobility of the thorax. In addition, it is possible by manipulation of the cervical area to influence the temperature regulating centres, to promote skin elimination in a natural way, and so to control temperature to a considerable extent. There are also a number of special procedures which have proved of great value in certain cases. Among these are the so-called 'lymphatic pump' treatment for aiding the flow of lymph towards the heart by rhythmic compressions of the thorax, treatments for the stimulation of such organs as the liver and spleen, and manipulation of the abdomen to promote bowel action and peristalsis.[2] Although old and recent osteopathic lesions are corrected when possible, the type of osteopathic

[1] Apart from manipulation of spinal tissues it is often possible to do much to relieve blockage of venous and lymphatic drainage in a particular part by deep massage and by kneading and stroking movements along the course of venous and lympathic channels.

[2]The 'lymphatic pump' treatment is usually administered in the following way. The operator stands behind and above the patient who is lying on his back. The operator places his outstretched hands, palms downwards, just below the patient's clavicles on each side. He then alternately depresses and relaxes the thoracic wall in a rhythmical manner at the rate of about one hundred and twenty times to the minute. The procedure can be continued for five or ten minutes at a time.

It need hardly be mentioned that manipulation of the abdomen should not be used in acute inflammatory conditions of the abdominal organs.

treatment administered in acute disease is not primarily corrective, but is intended to assist the body and its organs by keeping the spinal tissues relaxed and by stimulating the nervous and circulatory mechanisms in a natural way. Treatment should not be given in such a way as to be exhausting to the patient, or as to produce a violent reaction; it should rather be gentle, skilful and short, though it should usually be fairly frequent. Osteopathy is not, of course, the sole treatment to be applied in acute disease and must be combined with good nursing, suitable diet and hydrotherapy as required; but there are few cases in which manipulation is not of great value both in the acute stage itself and in convalescence. Many lives have been saved by it when the patient was already *in extremis*, and in other cases the usual course of the disease has been shortened and rendered less severe and complications have been prevented or removed.

Osteopathy in its widest sense is indeed much more than a collection of corrective procedures; it is a method of physical treatment of almost universal application which is capable of exerting a profound influence on body processes and particularly on the nervous and circulatory systems. Nerve centres can be inhibited by steady pressure or stimulated by intermittent pressure, percussion or manipulation. Kneading and manipulative movements can relieve passive congestion and stimulate circulation both peripherally and in the spinal cord.[1] If the osteopath is well versed in the different manual procedures which can be used and has the necessary skill and judgement to apply them rightly and suitably, there are few cases of acute disease which he will not be able to treat with at least much greater chances of success than a physician who has not his special knowledge and skill.

(d) *Osteopathic treatment in organic disease.* It is obvious that when serious degenerative or proliferative changes have taken place in parts or organs of the body, it is generally impossible to effect a complete cure. It is, however, often possible to arrest the progress of the disease and there are few cases in which there is not something that can be done for the patient to make him more comfortable, improve his

[1] Many procedures which are now considered as massage, spondylo-therapy,, magnetic treatment and the like, should properly be incorporated in osteopathy and form a part of it. Osteopathic technique was intended by Still to include all that is useful in manual healing, and he made no pretence to have discovered all that is to be known about such methods.

general health or enable him to get on reasonably well in spite of his disabilities. In most cases of organic disease osteopathy has something important to offer either as the principal method of treatment employed or in combination with other methods.

Although the broad distinction between functional and organic disease will always exist and be of the very greatest importance, there is reason to think that, under the influence of orthodox pathological ideas, the distinction between them has been much too rigidly drawn. It is probable that the recuperative, regenerative and self-healing potentialities of the body and its different kinds of cells are much greater than has ever been supposed, though it often requires much time, skill and patience to enable these potentialities to become fully operative, and though our knowledge of the different means of making them so may be very incomplete. Some of the tissues of the body are much more sensitive than others to adverse influences, some are destroyed more easily than others, some if destroyed or killed will regenerate easily, others with more difficulty or not at all.[1] It is, however, not an easy matter to determine at what stage a pathological process has gone so far as to be irreversible, and whether a certain group of cells is completely destroyed or is merely incapacitated or functioning abnormally. It is very certain that many conditions which are now considered to be organic and incurable will, as our knowledge increases, come to be regarded as amenable to treatment at least to some degree. There are and always will be incurable cases, but it is exceedingly doubtful whether there is such a thing as an incurable disease.

It is thus often possible for osteopaths to obtain results in the treatment of organic diseases which are surprising to themselves and are regarded with incredulity by orthodox pathologists. This is because they are able in favourable cases to reverse pathological processes which are supposed to be irreversible, to promote regeneration of tissues which are degenerated but are not beyond repair and to restore function where it has been ormant or almost lost. This is particularly the case in certain chronic diseases of the nervous system. If a nerve cell is really

[1] The body has a certain power of replacing cells which have been destroyed, with the exception of the cells of the central nervous system and the sympathetic ganglia. It seems to be a law of nature that the more specialised a cell is, the harder it is for it to be regenerated or replaced.

killed there is, so far as we know, no way in which it can be renewed, but it takes more than is sometimes supposed to destroy a nerve cell completely. Osteopathy is almost the only known way of selectively stimulating the circulation to the central nervous system and the results obtained by doing so are often astonishing.

In many cases of organic disease in which little can be attempted in the way of cure there is much that can be done to palliate. Where pain is a dominant feature it can often be controlled by relaxation of spinal tissues and other manipulative procedures. This may render the use of harmful drugs unnecessary and enable the patient to live a more normal life. Secondary symptoms which are the natural accompaniment of invalidism can often be controlled by osteopathic treatment.

(e) Osteopathic specialities. Some osteopaths have made a speciality of certain manipulative procedures which are useful in special conditions and circumstances. Among these may be classed the so-called 'finger-surgery' for breaking down adhesions at the mouth of the Eustachian tubes for the relief of catarrhal deafness; prostatic massage; special manipulations which are of value in obstetrics and various gynaecological conditions; and others. It should be noted that osteopathy has a particularly important part to play in obstetrics. In the pre-natal period much can be done by manipulative methods to keep the mother in good health, prepare her for labour and lactation, and to prevent such complications as morning sickness and constipation. During labour, various procedures have been devised to assist normal delivery and to control labour pains. In the post-natal stage osteopathy is of great value in correcting the pelvic bony displacements which frequently result from labour, in assisting lactation and in hastening and assisting convalesence. In the realm of gynaecology many osteopaths have developed a high degree of skill in special procedures for the correction of misplacements of the uterus, and for its maintenance in position by restoring the proper tone of ligaments and surrounding soft tissues. Since spinal lesions are frequently the under-lying cause of uterine disorders, local treatment is usually combined with osteopathic treatment of the spine. In this way a permanent cure can often be effected where other methods would fail.

(f) Conditions in which manipulation is dangerous or inadvisable.

There are a few conditions in which manipulation should not be used, though these are much fewer than is generally supposed; for even if osteopathic procedures are of little or no curative value in some cases, they have a part to play in the relief of pain, the prevention of secondary troubles and the control of symptoms. Tubercular or malignant disease of bones and aneurisms are obviously conditions in which manipulation is highly dangerous and inadvisable and may lead to the most serious consequences, and there are many other circumstances to which it should be used sparingly, or with very great caution and gentleness. Too great stress, therefore, cannot be laid on the importance of accurate diagnosis before manipulation is begun. A thorough knowledge of symptoms and diagnostic procedures and particularly of the uses of X-rays should form part of the equipment of every osteopath.

E. *Scope of Osteopathy*

From the foregoing it will be seen that the scope of osteopathy is extremely wide, but it has always been a matter of controversy whether it is wide enough to justify the claim of osteopaths to have, for all practical purposes, a complete system of therapeutics and consequently the right to a distinct professional existence. It is the view of the writer that osteopathy is not in the strictest sense a complete system of therapeutics, but that in the circumstances which exist to-day osteopaths are entitled, and indeed bound, to maintain a distinct professional existence, even though such a policy may prevent for a time their obtaining a favourable legal status. The reason for this is that osteopathy is much more than manipulation, it is manipulation applied in a certain way and in accordance with certain principles and a certain philosophy. Though manipulation is coming to be more and more used and accepted for certain purposes by the orthodox medical profession, the basic principles of osteopathy are still so alien to its way of thought that osteopathy cannot be mixed with orthodox medicine or subordinated to it without losing its essential character. The existence of competing and antagonistic schools of medicine is clearly unfortunate and undesirable in many ways, but it is preferable to the sacrifice of basic principles of permanent value to the human race. It is to be hoped that in the future osteopaths may become an integral part of a reformed medical profession, but it is doubtful whether the time for this can come for many years. When it does come, all physicians will be to some

extent osteopaths in their outlook and methods, but they will not all be specialists in manipulation. For already there are other schools of healing and methods of treatment the principles of which in no way conflict with Still's fundamental principles and which are naturally complementary to osteopathy, and as time goes on more such methods will doubtless be discovered. These methods, many of which are still in their infancy, will in the future be more and more combined with osteopathy, will assist it, render it more complete and perhaps in some cases supersede it or make it unnecessary.

It must be remembered that osteopathy is based on two fundamental principles, namely, the natural self-sufficiency of the human body and the unity of structure and function. It may be predicted that in time to come the first of these principles will be seen to be even more important than the second, and it is this first principle which renders it impossible and undesirable for genuine osteopaths, however open-minded they may be, to combine with, or allow themselves to be absorbed by, the orthodox medical profession. For although the medical profession sometimes pays lip service to this principle, all but a few of its members deny it in practice by using methods and having an outlook which are incompatible with it. Thus, while osteopaths should welcome the wider use of manipulative methods by the medical profession and should be ready to assist in the wider teaching of such methods, they should be in no hurry to sacrifice their separate professional existence and their control over their own system of education. There is a real danger that osteopaths may be tempted, by the desire to improve their legal position and widen their sphere of activity, to sacrifice some part of the fundamental principles on which their system was founded and has thrived hitherto. In the view of the writer this would be both foolish and wrong.

Apart, however, from such reasons based on policy and principle for the maintenance of a separate osteopathic profession at the present time, there are others of a practical kind which cannot be ignored. Osteopathic technique is not an art which can be easily or quickly learnt even by those who have a natural aptitude for it, and once it has been learnt it requires practice and wide experience to apply it to the best advantage. The poorly trained manipulator is either dangerous or ineffective, and the decline of osteopathy is inevitable if it becomes a

small specialist side-line in a general medical course. More than this it could hardly become because the regular medical course is already overburdened, overlong and over expensive. Few could be found who would be able or willing after the time and money expended in obtaining a medical qualification to embark on a post-graduate course of sufficient length to turn them into efficient osteopaths, even if the medical schools were capable of conducting proper instruction in osteopathy and had a proper appreciation of its possibilities, principles and scope. It seems therefore that osteopaths have no choice but to found and maintain schools of their own if a sufficient supply of well-trained osteopaths is to be maintained, and if osteopathic methods and theory are to be studied and developed as they should be. Such schools should provide facilities for post-graduate study for medical men who are willing to give the necessary time and thought to becoming efficient osteopaths, but this will only be a small part of their work. The courses in such schools will in many respects overlap those in medical schools, but the emphasis will be different, much that is new will be incorporated and much that is unnecessary, undesirable or of little importance will be omitted or touched on lightly. There are in fact strong arguments in favour of the view that the physician of the future should be trained basically and primarily as an osteopath. Even in some medical circles the use of drugs to any great extent is coming to be regarded as undesirable and unscientific, and surgery has always been something of a speciality and is likely in the future to become still more so, especially if and when more natural methods of living and treatment render surgery less popular and less necessary than it is at present. Osteopathy, on the other hand, is a method of treatment of almost universal application which requires the development of a sensitive touch and the learning of a difficult technique. There are, of course, certain specialities and certain out-of-the-way methods of treatment of limited application which will always call for special courses of training of greater or less duration, but even these can usually be better undertaken by persons familiar with osteopathic ideas and methods who are capable of combining the former with osteopathy. For the rest there is little practical knowledge or skill of which the physician has need which cannot readily be included in a well-planned osteopathic course of training. All physicians should be expected to have a working knowledge of minor surgery and obstetrics, but, apart from this, little is needed by the general practitioner save a thorough

knowledge of osteopathy, dietetics and hydrotherapy. These two last are powerful and indeed often indispensable aids to osteopathy, but in comparison with it they are quickly and easily learnt. The only basis other than osteopathy on which a sound medical training could be built up at the present time is perhaps that afforded by homoeopathic medicine and the philosophy which underlies it. It would seem, however, that it would be easier and more rational to teach homoeopathy to osteopaths than to teach osteopathy to homoeopaths. It is indeed unfortunate that this has not been done more in the past, since the two systems are in no way antagonistic in their principles, and are capable of helping one another and making up for one another's deficiencies.

For, however much osteopaths may feel it necessary to maintain a separate professional existence and an educational system of their own, they would, I think, be foolish to pretend that their system has not certain deficiencies and limitations. Some of these are inevitable in the present stage of our knowledge of the human body, but some of them are capable of being remedied to some extent. There are indeed few experienced and well educated osteopaths who regard osteopathic treatment as a cure-all or consider that it is in the strictest sense of the term a complete system of therapeutics. It is indeed legitimate, even for osteopaths, to criticise osteopathy and its founder because they have approached the problem of disease too exclusively from the physical and mechanical angle, and not sufficiently from the chemical angle.[1] For while it is quite true that the structural integrity of the body is one of the great foundations of health, it can hardly be contended that it is the only one, nor is its absence by any means always the dominant factor in disease. Even if we leave on one side for a moment the bodily ills which are wholly or partly of spiritual or mental origin, there are a large number of diseases which are chemical rather than physical or structural in origin and which cannot be treated successfully by physical methods alone. It is indeed true that to restore the structural integrity of the body is one of the most powerful methods of restoring also its chemical perfection, but it is not the only way nor by any means always the quickest and most effective. Moreover, if the bodies of

[1] There are, without doubt, other 'angles', besides the mechano-structural and the chemical, from which the problem of disease can profitably be approached. One of these is the vibratory or electronic. This will become increasingly important as electronic methods of diagnosis and treatment become better developed and better understood.

civilised mankind were chemically in better condition than they are, they would be less prone to structural perversions and less in need of osteopathic treatment. It would hardly be too much to say that the chemical integrity of the body is a principle the importance of which is as great as that of structural integrity. This principle has never been neglected altogether by Still and his followers, but it is doubtful whether they have given it sufficient emphasis.

The writer is aware that in putting forward this view he lays himself open to attack from many osteopaths who hold somewhat different views.[1] It is, however, possible to regard Still as one of the few really great figures in medical history and yet to be conscious of the fact that he had certain limitations, most of which can be attributed to his environment and to other circumstances outside his control. Still did see the importance of the chemical integrity of the body, but he approached the subject in a way which now seems somewhat negative and incomplete. He early became convinced of the useless-ness and harmfulness of the crude methods of drug medication which were prevalent in his day and he deplored the alcoholic tendencies of the rough frontier society in which he lived, but beyond this he seems to have had little understanding of the extent to which the body is influenced by the nature of the substances which are put into it or to which disease may be due to adverse chemical influences derived from them. Sometimes in his writings he gives advice about diet, particularly in acute disease, which is much more enlightened than that which is ofen found in modern medical texts; but as a general rule he took the view that it did not matter much what was put into the body in the way of food provided that it was in proper working order. The way to get it into proper working order was to see that it was in proper anatomical adjustment, and if this was done the body would do the rest.

[1]Another view is very ably put forward in Hulett's *Principles of Osteopathy* (A. T. Still Research Institute, 1922), particularly chap. vii. It is here pointed out that though disease may become manifest in the cell it cannot really originate there. The cell is naturally self-regulating and only goes wrong in its action if there is something wrong with its blood and nerve supply. It is structural perversions involving the supporting tissues of the body which are the commonest and most powerful factors producing derangements of blood and nerve supply. It is argued that these supporting tissues (connective tissues and especially bones and ligaments) are much less capable of self-adjustment than other tissues because they are not predominantly protoplasmic, but consist very largely of passive intercellular substance. If, therefore, the physician is in a position to normalise the supporting tissues of the body, Nature will do the rest.

It is difficult not to feel that the tendency of Still to discount or minimise the importance of diet, and to ignore the chemical background of disease, has left a gap in his system of therapeutics which other schools have had to fill. There is, however, much that may be said in Still's defence in this regard. In the first place the age in which he lived was predominantly a physical and mechanical age The science of anatomy had already reached a considerable degree of development, and physics and especially mechanics were rapidly going ahead and were being given new applications every day; the chemical sciences on the other hand were less well developed and bio-chemistry in particular was in its infancy. Still was, in spite of his great gifts and insight a man of the age in which he lived, and his interests and talents lay more in the direction of mechanics than of chemistry. He took the knowledge which was to his hand and which was the glory of his age and applied it to the human body in a way which was highly original and constructive. It is hard to ask more of one man. Secondly, it is perhaps not fanciful to put forward the view that osteopathy, in the time and place where it was first practised, was a far more complete system of therapeutics even than it is to-day. Still was a frontiersman living in a Middle Western pioneering society. The bulk of the people among whom he worked were not far removed from the soil and lived vigorous lives, largely in the open air, and fed on food that might sometimes be heavy and overabundant, but was at least simple, fresh, vital, uncontaminated and grown largely on virgin soil. If such people could be kept off drink and drugs and made to take elementary sanitary precautions they needed to have little fear of disease. If they did become diseased it was often solely because the structural integrity of their bodies had become impaired, and even if this was not so they were in a condition to respond readily to osteopathic treatment without much assistance from other methods. In these days the situation has somewhat changed and much disease, especially in big cities, can be attributed to lack of fresh air and exercise and the consumption of devitalised and artificial food, as well as to the structural perversions to which the bodies of civilised people are always prone.

The fact that osteopathy seems both in theory and in practice to fall short of being a complete system of therapeutics has placed individual osteopaths and the osteopathic schools and colleges in a position of some difficulty and danger, and has led in recent years to the incorpo-

ration in the osteopathic system of a good deal which cannot rightly or logically be reconciled with it. Since Still first founded his school of practice orthodox medicine has undergone great changes and adopted many new theories and methods. The tendency of the osteopathic profession has been to accept most of these ideas and methods without examining them with sufficient care or considering whether they were sound in principle and compatible with the basic principles of osteopathy.

It is quite true that it is possible to reconcile osteopathy with modern medicine and surgery up to a certain point, and in recent years this has been widely done or attempted in osteopathic schools and literature. The germ theory of disease, cellular pathology, phagocytosis and orthodox theories of immunity and diet have for the most part been accepted without question. Osteopaths have been content to worship at the shrines of Pasteur, Koch, Metchnikoff, Virchow and Ehrlich, often without stopping to consider how slight is the scientific basis for many of their theories and how slender the thread on which many of their conclusions hang. The result is that many osteopaths resort to surgery very readily and make use of serum and drug treatments to a considerable extent, especially for the prevention or cure of such conditions as syphilis, typhoid fever, malaria, tetanus, diphtheria, skin affections of various kinds and parasitic infestations. It may be admitted that in some cases such treatments appear to have success or at least to give the patient symptomatic relief for a longer or shorter period, but only with great difficulty can they be reconciled with the basic principles of osteopathy. Even those osteopaths who believe in the germ theory should feel that the most important and desirable thing in treating any disease condition is to arouse the forces of recovery, resistance and immunity in the patient. It can only be justifiable to resort to drugs or surgery when it is impossible to arouse such forces or if it can reasonably be shown that the drugs or surgery are aids to the natural reaction of the body. On these grounds a very large part of modern surgery and nearly all orthodox medication should be condemned. But many osteopaths, if they genuinely believe in the principles laid down by Still, must find great difficulty in accepting the germ theory of disease at all, or at least in the form in which it is generally current to-day. For though the theory can perhaps be reconciled with Still's second principle (the unity of structure and function), it is very hard to

reconcile it with his first (the natural self-sufficiency of the human body).

The tendency of organised osteopathy to compromise to some extent with the theories and practices of orthodox medicine is in many ways understandable and excusable, though if it is persisted in to any great extent it may well lead to the destruction or eclipse of genuine osteopathy. Osteopaths have indeed found themselves in a most difficult dilemma. From a desire for individual and professional prestige and in order to comply with legal requirements they have naturally wished to be able to claim that they are complete and 'scientific' physicians, but they have found that osteopathy alone does not always enable them to get the quickest, easiest and best results, and that both in theory and practice there are some conditions in which it is powerless to achieve all that is required. It is not unnatural that they have attempted to supplement their system and fill in its gaps with practices and ideas drawn from orthodox sources. Orthodox medicine has behind it the whole force of official and scientific opinion, entrenched in the universities, produces masses of learned literature and is supported by powerful vested interests. It has sometimes been difficult for osteopaths to perceive how much of orthodox medicine is still incompatible with genuine osteopathy, or if they have perceived it not to feel that the basic principles of osteopathy are untenable, at least in part. They would, however, be wise to be very cautious in adopting many of the practices and ideas of orthodox medicine, especially if they conflict in any way with Still's basic principles. It cannot, of course, be denied that much that is of permanent value has been done and thought and discovered in medical circles in recent years, but there is much, too, that is certainly unconstructive and can hardly fail to be ephemeral, while from the scientific and philosophical points of view orthodox medicine is in a state of confusion, by comparison with which the shortcomings of osteopathy shrink into insignificance. For not only has orthodox medicine so far concentrated nearly all its attention on disease and diseases instead of on health, but the 'science' on which it relies is much of it very poor science even when it is logically and honestly applied. Moreover, much that is incorporated in modern medicine, though the fact may be hid from the laity by technical language and scientific phraseology, has no scientific foundation of any kind. In so far as there is a philosophy underlying the whole system it

tends to be not only exclusively dualist but crudely mechanistic.

In so far as osteopathy is not a complete system of therapeutics the remedy lies mainly in other directions and, at the risk of being thought cranks, osteopaths should be prepared to stretch out the hand of friendship to the homoeopaths and to the various exponents of nature cure and new health methods. It is from these schools of thought rather than from orthodox medicine that the deficiencies of osteopathy should be filled, because they are based on ideas and principles which are similar to, or in accord with, those of osteopathy. By following such a policy osteopaths will find that their efforts will be crowned with greater success and that their science will develop, though it may take a longer time before they obtain official recognition. There is indeed every reason to think that if osteopaths will be content to stick to their principles for a few more years they will find themselves on the crest of the wave. Viewed in its proper perspective osteopathy will perhaps be seen to be but a part of a great revolution in the attitude of western man towards the body and its problems and in the methods employed to promote health and to prevent and treat disease. This revolution has already progressed further than is generally realised both in Western Europe and in North America, but in common with other great changes in human ideas and behaviour it has been in its initial stages based on intuition rather than on pure reason. The theory and the science of the revolution have in fact lagged behind the practice. There are, however, signs that a change is coming in religious, scientific and philosophical thought which will profoundly modify our ideas about the human body and which will either transform or destroy our medical profession.

It is of particular interest to note in this connection that the germ theory of disease as originally promulgated by Pasteur and his disciples is being seriously questioned, and that there is a revival of interest in the very different ideas and theories of his contemporary and compatriot Béchamp.[1]It would appear that the work of McDonagh[2], Dr. Young, Mme Henri, Dr. Bach and other modern investigators points in a similar direction. If it should finally be found, as seems not unlikely, that micro-organisms are scavengers rather than parasites and the results or accompaniments rather than the cause of disease, it would explain much that is now obscure and would be a striking corollary and vindication of the principles of Still.

Whatever may be the future of medicine, the relations of osteopathy and surgery should be close and friendly, for the two are brothers, both sprung from the union of manual dexterity and anatomical knowledge. The wonderful advances which have been made in the technique of surgery should not, however, blind us to the fact that it is resorted to much too readily and that it has strayed far outside its legitimate province. As osteopathy and other natural methods of healing become more widely known, better developed and better understood, the need for surgery and its popularity will greatly diminish. It will be seen that its main functions are the repair of injuries and the correction, so far as this is possible, of congenital abnormalities. The wholesale removal of the organs of the body and the constant interference with febrile processes which are now in fashion will be recognised as being unnecessary and undesirable. On the other hand, in cases where operation is really necessary osteopathy will prove of great value in pre-operative and post-operative care, as it already does in the osteopathic hospitals in the United States.

[1]See *Béchamp* or *Pasteur?* E. Douglas Hume (Daniel).

[2] See *Nature of Disease* by J. E. R. McDonagh. Also articles on the 'Germ Theory of Disease' by Dr. Beddow Bayly in the *Medical World*, June 15th and 22nd, 1928.

SACRO-ILIAC PROPOSITIONS

I must begin with a word of explanation. When the first number of our Institute Year Book was published in 1956, there was included in it a short article by me about the Mackinnon technique, in which I tried to say in the simplest possible way how this technique is carried out. I promised that I would try at a later date to amplify what I said in that article and to discuss in a general way my theory and practice with regard to sacro-iliacs. This paper is an attempt to redeem that promise. I present what I have to say today with some trepidation and with all modesty because it has been borne in on me during the years, and particularly since I have been attending the meetings of this Institute that my theories and my practice about the sacro-iliacs differ very considerably from those which are generally accepted and used in the profession, so much so that I myself find them very hard to reconcile with what is said and written and done by persons for whom I have the greatest respect and whom I regard as being in a general way more knowledgeable and better practitioners than myself. I hope very much that what I say today and the discussion which may follow it will serve to throw some light on the whole problem, add something to our understanding of it and perhaps show that our different approaches and points of view are not in fact as irreconcilable as they might at first appear to be. That they do appear at first sight to be irreconcilable was brought home to me in an interesting and amusing way. One of our eminent colleagues, whose name I will not mention, was asked to allow one of his lectures to be printed in our 1957 Year Book. He finally refused to do so be cause he considered that it would lower his prestige to be a contributor to so undesirable a publication, and one of the reasons which he gave for his disapproval was that Mr. Jackson and myself had produced articles which were so irreconcilable that we could not both of us be right and that at least one of us must be talking nonsense and misleading those searching in our pages for knowledge and enlightenment. On the other hand, I have received thanks and commendation for my descriptions of the Mackinnon technique from places as far distant from each other as Hawaii, Chicago, Paris, England and Scotland, so I feel that my little article may not have been without some practical value to some people. The fact of the matter is

that I believe that I have developed a method of sacro-iliac management which is of real value in a field in which there is a lot of confusion and a lot of unsatisfactory practice both here and in America. I suppose that we all tend to see the failures of our colleagues and I am very certain that I have more failures than I like, but I also know that the methods which I employ based on my ideas about the sacro-iliacs have enabled me to give relief in a rather spectacular way in cases in which others, whom I genuinely respect, have failed. My theory and practice is based on what was taught me years ago by the late Mr. Daniel Mackinnon with whom I worked for a time in Canada, with certain additions and modifications of my own. Mackinnon, I may add, was not himself trained in one of the recognised osteopathic colleges and was indeed inclined to be somewhat contemptuous of them, largely because he saw so many cases in which the osteopathy of the osteopaths had failed, particularly in the field of the low back. I have given the title of 'Sacro-iliac Propositions' to this paper because I believe that the best way I can explain to you what I think and do is to put forward certain propositions or postulates and then develop them and discuss them.

PROPOSITION 1.

That the sacro-iliacs are unique in importance

It may be possible but it is not easy to exaggerate the importance of these joints from an osteopathic point of view. It is on the proper positioning and functioning of the two sacro-iliacs that the integrity of the pelvic girdle really depends, and the influence which they exert on the mechanics of the body as a whole is very profound. When there is something wrong with the sacro-iliacs the body is being disturbed both mechanically and neurologically, especially in the erect posture and during locomotion though in some cases there is good compensation to this disturbance and in some cases there is not. In practice it appears that the correction of the sacro-iliacs is a sort of key which, as it were, unlocks things both above and below. It is hardly necessary for me to enlarge here on the mechanical results of sacro-iliac lesions except to say that they arise mainly from the effects, which they produce, on the relative length of the two extremities and to the sacral foundation of the spinal column. I woul, however, like to emphasise that the ill effects of

sacro-iliac lesions cannot, I believe, be explained solely on mechanical grounds. There is evidence that they produce a very special and vicious type of nerve irritation which may manifest itself in a number of very different ways in accordance with the particular weaknesses and propensities of the patient. I am aware that there are many sacro-iliac lesions, which are in a sense secondary in that they are caused or maintained by other lesions, but even in these cases I usually commence operations by correcting the sacro-iliacs because it makes the correction of other lesions easier. However, in many of these cases the maintenance of the sacro-iliac corrections is a difficult matter until the primary or predisposing lesions have been dealt with effectively. In particular there is a definite reciprocal action as between the sacro-iliac and both the 5th lumbar and the 3rd lumbar.

PROPOSITION 2.

That the sacro-iliacs are unique in their character and function

It is something of a commonplace that the sacro-iliacs are unusual both anatomically and physiologically by comparison with other joints in the body. The only other joint which is in some ways similar is, perhaps, the acromio-clavicular joint. For a long time it was believed by anatomists that the sacro-iliac joint did not move and I have heard it stated, on the basis of post mortem studies, that a large proportion of sacro-iliac joints in persons of both sexes become fused and immovable after a certain age; a thing which, I confess, I find difficult to believe. It does, however, appear that these joints are peculiar in not having muscles to move and support them in the usual way, and depend for their strength and integrity on powerful ligaments. As to the function of the sacro-iliacs there has, I feel, been more controversy than enlightenment. I hope that you will all read the very interesting paper by our colleague, Mr. Wardell, on the subject of pelvic mechanics which is being published in the O.A.G.B. proceedings. I have derived comfort from the fact that this paper appears to confirm the kind of view which I have long held about the function and normal behaviour of the sacro-iliac joint.. I believe it to be a shock-absorber rather than a joint in the usually accepted sense of the term and its action is or should be a rocking within the very limited range which the "L" shaped configuration of the joint, and the pull under load of the very powerful

ligaments, allow. Moreover, the ligaments are so arranged, according to Mr. Wardell, that the greater the force which the joint has to sustain in the normal course of events, the greater will be its firmness and the less its ability to move. On the basis of this I would like to put forward three suggestions for your thought and consideration. First, that the old anatomists were perhaps only partly wrong in maintaining that the sacro-iliacs do not or should not move, though I feel that they should be nice and juicy and so able to rock and roll satisfactorily and to fulfil their function as shock-absorbers. Secondly, when a sacro-iliac lesion occurs it is rather different from other lesions. It is not so much a fixation or restriction within the normal range of motion as a genuine subluxation in which the joint surfaces have gone outside their normal place or range. Thirdly, in order to meet the rather different objects which we are seeking to achieve we should seek to devise techniques of correction somewhat different from those which we usually employ. We do not so much want to free up the joint or increase its mobility in any direction as to adjust it and stabilise it; we want, in fact, to see that the " L" shaped articular surfaces on the ilia and the sacrum are correctly and firmly tucked into each other. What is required is accuracy, not force. I am astonished and often distressed at the force which I see being applied to sacro-iliac joints. I believe that this is both unnecessary and undesirable. Though there may be a very few exceptional cases in which force is required, I do not believe that it is generally in the least necessary. This is a joint in which there is not a lot of muscle guarding to be overcome, and when the patient is lying down so that the ligaments are not being put on tension, there is no reason why much force should be necessary. I would suggest that in most, if not in all, cases in which the joint will not move easily it is because it has got to the stage of being actually or partially fused by arthritis, and in such cases it may not be possible or advisable to move it.. The use of powerful techniques on the sacro-iliac may move the joint all right, but I know from experience that it very often does not adjust it correctly, and it can hardly have a good effect on the ligaments on which the future stability of the joint must largely depend. What we need is not so much powerful leverages as a method which will ensure accurate adjustment with the minimum of force and the minimum of irritation or injury to ligaments. Sacro-iliacs need to be coaxed and managed and not to be banged about hither and thither.

PROPOSITION 3

For practical purposes the number of sacro-iliac lesions can be reduced to two

If I am asked how many sacro-iliac lesions there are, I am tempted to reply in the words of the Church Catechism," Two only as generally necessary to salvation." I am prepared to concede that there may theoretically be subdivisions of the two kinds, depending, probably, on which of the arms of the joint surface is principally involved. It is of course possible to have twists and tilts of the sacrum in addition to lesions of one or both of the two ilia on the sacrum. I believe, however, that these are generally best dealt with by first adjusting the sacro-iliacs and then following up by dealing with the lumbo-sacral joint. Also Mackinnon, and others, have spoken of certain other rare lesions which are sometimes found and one of which Mackinnon believed to be associated with inguinal hernia. I believe that these atypical lesions are sometimes found and my experience leads me to think that the most important of them is a condition in which one or both of the ilia are pushed forward or back on the sacrum without there being any rotation or any change in the length of the extremity. However, in the great majority of cases we have to deal with one of the two lesions which I like to call "short-leg lesion" and "long-leg lesion". I prefer to use these simple terms to get away from the confusion which appears to have arisen from differences and changes in nomenclature. I believe that I am right in saying that the short-leg lesion (which raises the acetabulum) has also been called "posterior" and "up-anterior." The long-leg lesion (which lowers the acetabulum) has been called "anterior" and "up-posterior". Mackinnon called the short leg lesion "anterior-inferior" because he believed, rightly or wrongly, that it caused the posterior superior spine of the ilium to move in a downward and forward direction. The long-leg lesion he called "posterior-superior" because he believed that it caused the posterior superior spine to move upwards and towards the spine. I do not want to argue about these nomenclatures and the points which arise from them. I believe, however, that it will be generally conceded that there is one typical lesion which shortens the leg and another which lengthens it. According to Mackinnon's theory, and I agree with him, it is possible to have any combination of these lesions as between the two sides; that is to say

you can have a lesion of either kind on one side only, you can have a short-leg lesion on one side and a long-leg lesion on the other, or you can have the same lesion on both sides, in the same or different amounts or degrees. In some of the cases in which both sides are involved it could he argued that the lesion is one of the sacrum, but though this may be so, it does not appear to make much practical difference because if both ilia can he correctly positioned on the sacrum, it amounts to the same thing as positioning the sacrum correctly between the ilia. I will add that in my experience I have found the short leg lesion to be enormously more common than the long leg lesion, although in some cases the pain and symptoms are referred to the opposite side, thus giving to the unwary the impression that there is a long leg lesion on that other side.

This is perhaps the moment at which I should say something about the real, primary or anatomical short leg. In spite of all the evidence to the contrary I find it impossible to believe that such short legs of significant amount exist in such enormous numbers as it is now the fashion to maintain. I have seen so many cases in which real short legs have been diagnosed by most competent osteopaths and yet have seemed to disappear when the pelvis has been dealt with by the methods which I believe to be right. I suspect that, in some cases at least, even the carefully taken standing X-ray can be misleading. I do not of course deny that real short legs do exist and, when they do, I am not opposed to the use of heel lifts of suitable amounts. There is, however, one point which I should like to emphasise. Even if one is convinced that there is a real discrepancy in the two extremities, it does not excuse one from making an accurate adjustment of both sacro-iliacs. They should be corrected and maintained in correcion even in the presence of a short leg and whether or not a heel lift is used; indeed one of the most important functions which a heel lift can perform is to assist in the maintenance of a normal condition of the sacro-iliacs. I would also make a plea for the very careful correction of the sacro-iliacs immediately before a standing X-ray is taken for diagnostic purposes, because I believe, though I cannot actually prove it, that the presence of sacro-iliac lesions can be a source of error in such X-rays.

PROPOSITION 4.

The sacro-iliacs should be diagnosed and treated on a positional rather than a functional basis

The important thing in dealing with sacro-iliacs is to make sure that positioning is right on both sides. Fundamentally a pelvis is either right or wrong, and the smallest possible wrongness can give symptoms, often of a very serious nature, especially when the pelvis is one which has been in trouble before. I have known many instances of cases which have been treated with success and have remained symptom free for a long period, until some incident occurred which produced a slight sacro-iliac lesion. In a very short time the whole of the old symptom picture began to reappear, even though the amount or severity of the lesion was apparently very small and was certainly much less than it was in the old days. In the course of treatment of an acute case, too, one can have the most violent and discouraging relapse, which is simply due to a slight recurrence of the sacro-iliac trouble, and which can be aborted by a speedy correction. I learnt when I was working with Mackinnon that I must never speak of a sacroiliac as being "a little better" or "not so bad as last time" or "pretty good now". He was only interested in knowing whether it was right or wrong and to suggest that there were degrees of rightness and wrongness was to arouse him to the same sort of fury which I have seen exhibited by Mr. Wernham when someone suggested to him that something was not an osteopathic case. I would here say that a great deal of the difficulty which is experienced with sacro-iliacs is due to the failure to look carefully enough at the sacro-iliac on the opposite side to the one which is clearly the worst and most important of the two in the particular case. Frequently there is a small lesion on the other side which must be corrected too if the integrity of the pelvic ring is to be restored and maintained.

I will now make a point which I fear will get me into serious trouble, but I must make it in the interests of what I believe to be true. The testing of sacro-iliacs on the basis of their moveability and function is an operation which, in my opinion, is largely futile. When I have been associated with clinics I have frequently seen in the diagnostic notes on the case sheets such phrases as "sacro-iliacs rigid" or "sacro-iliacs fixed" or " sacro-iliacs locked". Frankly I do not quite know what this

means. I do not believe it is possible for sacro-iliacs to be too rigid to perform their functions provided that they are in proper position and not actually fused. I agree that all human tissues should have a certain resilience and juiciness about them and presumably one can have a fibrotic condition about or in a sacro-iliac joint which interferes with its functioning. I do in fact sometimes give a gentle springing to the joints which appears to be pleasing to the patient and to add to the comfort of the part but in a general way I believe that the function of a sacro-iliac joint will be restored if both sides are properly corrected and maintained in correction, because the ordinary movements and locomotions of the patient will then tend to restore the proper functioning if this has been lost. With regard to the so-called "functional tests" of Downing, I find it difficult to speak. I do not believe that these evolutions do or possibly could move the sacro-iliac joints, and if they did do so we should be in even greater trouble with sacro-iliacs than we are at present. So certain am I of this that I would be confident of being able to convince anyone of the truth of it if he would allow me to work with him on a sufficient number of cases for me to demonstrate the point. I do not myself use these tests at all, but that does not necessarily mean that they have no diagnostic value in the hands of those who use them habitually with apparent benefit to themselves and their patients. I believe that what these tests do is to assist in the evaluation of the condition of the lumbar musculature and of the rotators of the hip, which, in its turn, may have a relationship to the presence or absence of a sacro-iliac lesion, though I myself do not pretend to know what this relationship is.

PROPOSITION 5

Maintenance rather than correction is the difficult problem in sacro-iliac management

I have tried to indicate that, although the correction of sacro-iliacs requires skill and accuracy it does not require the use of force except possibly in a few exceptional cases. The maintenance of corrections does however present very great difficulties in a large number of cases. There is very little doubt that the sacro-iliac joints, at least in our modern society, are highly vulnerable. When a patient comes in for the first time it is the exception rather than the rule to find the sacro-iliacs

in perfect position. I believe that a number of factors contribute to this special vulnerability. These joints depend for their stability almost entirely on their ligaments and I believe that even when ligaments have not been actually torn or damaged they may be deficient in pliability and strength. According to the anatomists one must not speak of ligaments losing their elasticity because most of them are composed not of yellow elastic tissue but of white fibrous tissue which is regarded as inextensible and must therefore either hold or tear when subjected to undue force. However this may be, it does appear that many people, owing I would suggest to poor nutrition or poor body chemistry, have ligaments which are not in a condition to do their work properly. Yet, on the other hand, even in cases in which there have been old standing lesions of the sacro-iliacs, if these lesions are corrected and maintained in correction the ligaments will tend in time to recover their tone, though they may need to be helped to do so by constitutional treatment and by such expedients as the sitz-bath. Another factor in instability may be developmental abnormalities which are probably common in cases in which the lesioning dates from the growing years. For other causes of instability we must look outside the joints themselves. Both practical experience and mechanical research point to the conclusion that other lesions in the spine and in the lower extremities tend to produce or maintain sacro-iliac lesions. These lesions elsewhere, whether in any particular case we regard them as primary or secondary, should he corrected in order to take abnormal stress off the sacro-iliacs. I would particularly emphasise the importance of the 5th and 3rd lumbars in this connection but it is desirable to do all that one can to improve the mechanics and flexibility of the whole spine and especially of the lumbars. It is obvious that if the lumbars are very stiff many movements and efforts will throw a strain on the sacro-iliacs which they are not intended to bear and they will be, as it were, levered out of position.

I have now come to the end of my "Propositions," but I would like to conclude by making some observations of a general character. In my attempts to cope with the sacro-iliacs which come my way, I use almost entirely the Mackinnon techniques. This is not by any means because I consider these to be the only techniques which are of value, or even because, being now a comparatively old dog, I find it hard to learn new tricks, but because I have found them almost ideal for the purposes I

want to achieve. They are gentle to the point of being absolutely non-traumatic, they can usually be applied without difficulty to people in intense pain, to women far advanced in pregnancy and to recalcitrant children, they do not ever appear to lead to over-correction and yet if they are properly applied they can be relied on to correct perfectly. The fact that they are thus fool-proof is of importance because in cases of difficulty and doubt in diagnosis one can apply the techniques to both sides and be tolerably sure that one has done what is required so far as the sacro-iliacs themselves are concerned. Often in very acute cases I do very little on the first visit except to adjust the sacro-iliacs and the change that this brings about in a very short time is often quite astonishing, relieving pain and spasm and enabling much more to be done on the next visit. The technique for the correction of the short-leg lesion is the one which I like the best and I do not feel that I could want anything better. The technique for the long-leg lesion is perhaps a little less perfect because it cannot be easily performed without putting the patient in the prone position, a thing which is sometimes difficult or undesirable.

I am quite prepared today or at other times to try to demonstrate the Mackinnon technique to anyone who is interested. I have, however, no exaggerated hopes that such demonstration will achieve very much. I would not undertake to teach the techniques or the theories, connected with them in a satisfactory way unless the person or persons seeking to learn them would take the trouble to follow me round for a time, see what I am trying to do and why, and observe the clinical results which follow. I have not so far had very good luck in trying to teach the techniques and the way to use them to other osteopaths. I have found that they approach the matter with so many preconceived ideas that I have difficulty in making things clear to them and very few will exercise enough patience or give enough time to get the feel of the technique so that they can perform them with efficiency and accuracy. Neither the diagnosis nor the treatment is really difficult in most cases, but both require a considerable amount of practice before a reasonable degree of certainty and accuracy can be obtained. Strangely enough I have had more success in teaching laymen to perform the techniques by a sort of rule of thumb method and, though some might consider it unethical or against our trade union regulations, I have done it in some cases so as to enable patients at a distance who are prone to low back

trouble to be given at least temporary relief by members of their families.

In the realm of theory Mackinnon had a number of interesting ideas about the relationship of different sacro-iliac lesions to the kind of scoliotic tensions and curves which develop in the spinal column, and also about the relationship of particular lesions to certain symptoms and clinical entities Some of this is beyond me and in any case I will not attempt today to go into it in detail, but there are one or two points I would like to mention. Mackinnon believed, and I have found it on the whole to be true, that right sacro-iliac lesions tend to be associated with disturbances of the bowels and the digestive system generally, and also of the respiratory mechanism. I have, for instance, known of cases of asthma which could be relieved by doing nothing more than adjust a right sacro-iliac, though I am not suggesting that this is the only thing which one should do in such cases. Lesions of the left sacro-iliac on the other hand are more likely to be associated with disturbances of the genito-urinary, endocine and cardio-vascular systems, such as dysmenorrhea, bladder irritability, migraine and various circulatory troubles. I have found the knowledge of these tendencies to be useful in a practical way. One particular point which occurs to me is that Mackinnon claimed that he could relieve most cases of vomiting of pregnancy by attention to the right sacro-iliac.

I feel that I have now said enough and like Wellington's soldiers of old I will form square and prepare to receive cavalry.

THE THEORY OF OSTEOPATHY

This Institute is rightly dedicated mainly to the study of practical problems and to the perfection and discussion of technique, but I think that it is sometimes essential for all of us to think fresh about the basic principles of Osteopathy and about its relationship to other branches of knowledge and to the fundamental problems of therapeutics. If we do not do this we shall stagnate and decline and our education and politics will tend to go wrong because we do not know what we stand for or where we are trying to go. If a profession or a science is to remain healthy and to develop it must be based on principles and tradition, but it must also always be seeking to bring itself up to date and to reconcile itself and correlate itself to genuine advances in knowledge in other fields and especially in those fields which are closely related to it.

It has always been stated that Osteopathy is based on two fundamental principles. The first of these is the belief in the natural self-sufficiency and tendency towards health and perfection of the human body, call it the *vis medicatrix naturæ* or what you will; the other is the unity or correlation of structure and function, by which we mean that health and disease are conditioned by the mechano-structural state of the body. Osteopathy is based on the practical application of these two ideas and the second of them represents its unique and essential contribution to therapeutics.

If we look at the history of therapeutics through the ages we see that ideas of disease causation and of treatment have varied very much from time to time, but if we disregard for the moment the forms of treatment which have sought to effect their influence by mental or spiritual forces or techniques and those which appear to be merely superstitious, we see that there have been two main approaches to the problem of disease and its treatment, namely the physical and the chemical. Sometimes chemical medicine has been more fashionable and sometimes physical, but in one form or another there has always been a certain amount of both, and I think that there always will be.

If we look at Osteopathy in its historical setting we see that it was not only a very revolutionary idea and method in itself but that it also

represented a revolt against the very definitely chemical phase in medical thought and practice which was a feature of the time in which Dr. Still lived. It is clear that this revolt was very necessary because physical medicine had at that time fallen into sad neglect and in fact was almost non-existent except in the form of surgery. However, I feel that it can be argued that Dr. Still in his great enthusiasm for the particular form of physical medicine which he elaborated and used and advocated went a little too far in his revolt or at least gave it a form or background which has led to some difficulties for later generations of osteopaths. I am far from wishing to make less of Dr. Still in any way, but I think that we must try to look at him objectively and in his historical setting. He was a particular kind of man living in a particular age and a particular environment. He was led to revolt against the medicine of his day which was not only far too chemical in its approach but was also an extremely crude and unsatisfactory form of chemical medicine. He also had a superlatively good idea and method of his own which he had to put over and which seemed in the circumstances of his time and place to provide an answer which was virtually complete to the problem of disease. He was thus led to make an indiscriminate condemnation of chemical medicine and to claim that Osteopathy, with the aid of a little surgery, which is really another form of physical medicine, is a complete system of therapeutics. My feeling is that the immediate practical results which followed from Dr. Still's ideas were on the whole very good. To achieve anything worth-while and effective it is generally necessary to concentrate both in thought and action and if Dr. Still had not been so much in revolt against orthodox medicine as he saw it, and so profoundly convinced of the importance and completeness of his new concept and method of treatment, it is doubtful if he would have been able to achieve what he did achieve in founding a distinct school of therapeutics and inspiring others fully to explore the possibilities of his ideas and methods. Yet it is, I feel, by no means certain that all the long-term results of Dr. Still's ideas have been entirely happy. His uncompromising condemnation of everything in therapeutics except osteopathy and in particular of all forms of medicine with a chemical approach and his insistence that osteopathy is a complete system of therapeutics have both led his followers into rather serious difficulties, and I think that these difficulties are increasing rather than diminishing with time, even though the advance of knowledge, if rightly understood and interpreted, is bound

to vindicate Osteopathy in its essentials. It would perhaps have been better if Dr. Still instead of condemning all forms of chemical medicine had taught us to distinguish good chemical medicine from bad, and if instead of calling osteopathy a complete system in itself he had indicated what other forms of therapy can be made to work with Osteopathy and what forms are antagonistic to it.

I would like to spend a little time in considering some of the different interpretations of osteopathic theory which have been put forward from time to time by the intellectuals and educationists of the osteopathic movement and which have formed the basis of teaching in the osteopathic schools. While I find them all interesting and worthy of respectful attention I will confess to you from the start that none of them seems to me entirely satisfying, so that I shall end my talk by trying to suggest a rather different approach which seems to me more sound, and useful for the future if we are to preserve what is essential in osteopathy and at the same time correlate it to other methods of treatment and to genuine advances which have been made or will be made in our knowledge of the different sciences related to medicine.

If we read Dr. Still's own works the two things which emerge very clearly are that he looked on osteopathy as a drugless system of healing and as one which was complete in itself and did not need anything to supplement it or assist it. His background and education led him to express his ideas very largely in theological terms and his idea was that the human body was potentially a perfect machine designed by God who was the perfect architect or mechanic. When it went wrong or did not function properly it was because the machine was out of order and what was necessary to get it working properly was to put the mechanism right. This could be done in a normal way by osteopathic techniques except in some cases where damage was too gross or had gone too far, when you would call in the help of surgery to restore as far as possible the structural and mechanical integrity which had been lost. You did not really need to worry about body chemistry because the body was a perfect laboratory which would produce all the chemicals of which it had need and take them to the proper places provided that the mechanism was in proper working order. Even acute, feverish and infectious conditions were to be dealt with by osteopathic means because in this way the necessary forces and chemicals could be

liberated to bring about their cure. Indeed, he seems to have regarded many such conditions as simply due to a disturbance of blood and lymph distribution and of temperature regulation resulting from mechanical and structural causes.

Unless I have misrepresented Dr Still, this is Osteopathy in its pure and original form and I would like to analyse and criticise it. There is, I think, an enormous amount to be said in favour of this simple and direct way of putting things, and within its limits I believe it to be sound and scientific If we believe that it is possible to have a Science of Medicine at all we must believe that it is possible to discover the laws by which health and disease are governed or conditioned. Dr. Still has put his finger on what is perhaps the most important single factor by which bodily health is governed and conditioned in the ordinary circumstances of life. It is practically impossible to name any pathological condition to which this factor does not have a relationship. It is through the body structure and mechanism that man responds to the stimuli with which he is bombarded and when the mechanism goes wrong you do not get the proper response, and you get the beginning of pathology which is perverted physiology Moreover we all know that from the practical point of view it is undesirable to be a mixer. Osteopathy is a very big thing and to learn to understand and apply it to the best advantage is about as much as anyone can undertake in a lifetime. As soon as we begin to think of our cases in other than osteopathic terms we are apt to miss the osteopathic point of them and so fall short in osteopathic diagnosis and treatment of them. If we are honest with ourselves we know that when we fail it is very often not osteopathy which has failed but ourselves or our patients who have failed, for of course some of our failures are due to the patients who cannot be persuaded to listen to what we tell them or to take the treatment which is necessary, however wisely we may approach them.

Yet when all is said and done I find that I cannot quite accept Osteopathy in the simple form in which it was enunciated by Dr. Still. In the first place I do not think that it can ever be right to seek to eliminate chemical medicine altogether, even though we may feel that a great deal of what goes under the name of chemical medicine is extremely bad, as it certainly was then and, in my opinion, still is today. We can hardly escape from the conclusion that great civilisa-

tions have been founded on sound systems of agriculture and have tended to decay when their agriculture has gone wrong. Work has been done which shows that the health of peoples, primitive and civilised, is very much conditioned by their living habits and the type of food they eat. From the earliest times it has been believed that certain foods and certain plants have certain properties and supply specific needs in different pathological states. This is too big a subject to be ignored or played down as Dr. Still seems to have done. To me it appears that there is something which can be called the chemical integrity of the body which is fundamentally as important as structural and mechanical integrity, even though Still was quite right in pointing out that the biochemical functioning of the body is profoundly influenced by its structural and mechanical state. In fact, we must admit we have here two factors which react on each other and that if structure reacts on biochemistry it is also true that biochemistry reacts on structure. I am convinced that a lot of the osteopathic trouble we find in our patients and the structural weakness of civilised men are due to their bad biochemical state.

I think that the criticism of Dr. Still can be carried a little further. The science of medicine or therapeutics is concerned with the health of the physical body, and quite rightly so, but human beings are something more than physical and chemical mechanisms. Our bodily health does undoubtedly depend on maintaining certain physical and chemical integrities or normalities, but this is not the whole picture. Human beings are complex entities and their physical bodies are reacted upon not only by environmental factors which we can to some extent evaluate, but also by psychological and spiritual forces which we know to exist, though our understanding of them may be very imperfect. Here again there is a two way action because if it is true that mental and psychological health is powerfully influenced by a person's physical condition it is also true that physical health is influenced by psychological and spiritual states. If therefore we want to have a complete system of therapeutics we must take this into consideration. I doubt very much whether Dr. Still was sufficiently aware of this and, if he was, he said very little about it, though doubtless he was a good enough physician to make use of a certain amount of simple psychology in treating his patients, as indeed all good physicians have done since the beginning of time.

Perhaps we can sum up by saying that Dr. Still is the greatest and most fundamental of the exponents of an Unitary concept of disease and treatment. There have been others who have had Unitary concepts, some of which are so narrow as to be ridiculous, but many of which have a very great deal to be said for them, because, if they do not embody the whole truth, they do embody some important aspect of it, and they enable techniques to be developed which are extremely useful in getting rid of disease. All these unitary concepts which are worth anything at all start from the principle that disease is an abnormal state and health the natural heritage of man and that the problem of therapeutics is to liberate the natural healing forces of the body or to remove the obstructions to their operation, and they go on to lay down some method of approach to the treatment of disease which is of universal application because it is based on some fundamental law or principle. The trouble with all these unitary concepts is that their exponents are apt to claim that they are the whole truth when really they are only part of it or one aspect of it. In fact I believe that nearly all well established diseases or pathological states are vicious circles which even if they originally had one simple cause are often maintained by other factors or bring in their train secondary effects which may be of the greatest importance from a practical point of view. Thus in the vast majority of disease conditions of any importance or long standing there is an osteopathic (i.e., mechano-structural) angle, a chemical angle and a psychological angle. They are thus vicious circles in which at least three things are involved. In some cases it may be enough to break the circle at one point, but in others it may be essential, or anyway advisable and quicker, to break it at more than one point. The art of the physician is to know at which point or points it is most essential to break the circle, because in some cases one point is of primary importance and in some cases another. Now in nearly all cases the osteopathic approach can and should be made and in many cases if this is done properly Nature will do the rest, but in some cases to get the quickest and best results we may need to make an approach from other directions as well. I think we should realise this and look upon osteopathy not as a complete system in itself but as a basis from which to work. Other techniques and approaches provided that they are constructive and not destructive are to be welcomed and are to be regarded as complementary and not antagonistic to osteopathy. The thing is that, thanks largely to Dr. Still, physical medicine has ad-

vanced a good deal farther than either chemical medicine or psychological medicine. We do know quite a lot about how to restore normal anatomy and normal physiology through our osteopathic procedures, but the restoration of normal body chemistry and normal psychology is far less well understood. I do believe, however, that there are already in existence constructive techniques in the realms of chemical and psychological medicine and that the outlines of the fundamental principles which govern these departments of knowledge are beginning to appear. Such techniques and such principles are not antagonistic to osteopathy but are complementary to it as they are all helpful in liberating the *vis medocatrix naturæ.*

At this point I must digress very briefly to discuss the relationship of so-called "Orthodox Medicine" to these ideas. All unitary concepts of disease and treatment, whether they come from Dr. Still and the osteopaths, Dr. Hahnemann and the homœopaths, Dr. Lindlahr and the naturopaths, J. E. R. McDonagh, William Koch, Mary Baker Eddy or anyone else, are anathema to the medical profession. If this attitude was based on profound critical thought and was accompanied by an attempt to find something better, good rather than harm might come of it, but the fact seems to be that the medical profession has not yet seriously begun to face up to the problem of disease at all, or to try to discover the fundamental laws or principles by which health is governed or which should underlie treatment. The tendency is to look upon every disease as a separate and unrelated entity for which some specific treatment must be administered and most of the treatments, though they may appear to be scientific, are in fact empirical because they are not related to any law or principle. Whether they do the patient good or harm in the long run is largely a matter of chance. The nearest thing which orthodox medicine has to a basic principle is a belief that a large proportion of disease is parasitic in character and origin. Even if this was true, which I do not believe it is, the knowledge that it was so would not be very helpful or get us very much farther, because parasitism is not so much a principle as a phenomenon and in so far as it exists the interesting and important thing to know about it is its cause and meaning and the part which it is playing in the general scheme of things. By all means let us admit that osteopathy may not be the whole answer to the problem of disease, but let us be very cautious in looking for further enlightenment among people who

have not seriously faced up to the problem at all, and in many cases are even proud of the fact that they have not, and condemn as "cultists" all have tried to so.

But to return to the history of osteopathic theory, we must now consider the ideas of some of the immediate followers of Dr. Still. Dr. Still left his disciples with the two ideas that osteopathy was a drugless system of healing and that it was a complete system; he also left them with the problem of putting osteopathy into academic form and reconciling it with a growing body of scientific and pseudo-scientific knowledge and with discoveries of one kind or another connected with medicine. Without going into too great detail I want to draw your attention especially to the ideas of Dr. G. D. Hulett and Dr. J. M. Littlejohn because I think they are particularly interesting and important.

Dr. G. D. Hulett's book on the *Principles of Osteopathy* is not, I think, read as much as it should be. It strikes me as an exceedingly scholarly and thoughtful work and far better than many others which are much better known. The thing which particularly interests me about it is that it comes nearer than any other work to giving an intelligent and convincing defence of osteopathy as a complete system of therapy. If I rightly understand Dr. Hulett 's argument it is that the human body is naturally self adjusting to any sort of stimulus which is applied to it. Moreover pathology or disease, though it may manifest itself in a cell or group of cells cannot really originate there.

The cell is a self-regulating entity which will remain healthy and function properly provided that its blood and nerve supplies are functioning properly both quantitatively and qualitatively. However, the framework and supporting tissues of the body are something of an exception to the general self-regulating tendency of the body, although they do have it to a certain degree. There are various reasons for this: the variety of man's occupations and the variety of the uses to which he puts his body especially in a highly civilised and specialised society put a special strain and stress on the body framework, man may not be adjusted as perfectly as he might be to the erect posture either anatomically or physiologically, and (Hulett makes a special point of this) the supporting tissues of the body, bone, cartilage, ligament, etc., are less purely cellular than the other tissues of the body and contain a large

amount of passive intercellular substance which is inert. He argues therefore that the framework of the body is always showing a tendency to go wrong and get out of adjustment and that when it does so proper blood and nerve supply is interfered with and we get the beginning of pathology, or at least a pre-pathological state, in the different parts and organs of the body. Therapeutics therefore consist in a readjustment of the body anatomically and mechanically. If this is done Nature will do the rest. I believe this to be a very sound argument as far as it goes and if it is not completely satisfying it does vindicate the paramount importance of the osteopathic idea and confirms the fact that osteopathy is a basis or foundation for any rational system of therapeutics.

Dr. J. M. Littlejohn, whom we here specially reverence, has a somewhat different approach. He retains Dr. Still's ideas that Osteopathy is a drugless system of healing and that it is complete, but, as far as one can judge from the writings of the two men, he has a somewhat wider conception of what is meant by Osteopathy. His great idea seems to be that Osteopathy in its widest and completest sense is the science of therapeutics by Adjustment. In the term Adjustment he includes not only structural and mechanical adjustment, but also physiological adjustment, and the adjustment of the patient to his environment and of the environment to the patient when necessary. Looked at in this way Osteopathy becomes a very wide and complete thing. In the practical realm of treatment he draws a rather definite distinction between immediate and palliative treatment in acute and sub-acute conditions and the more curative type of treatment which is mostly manipulative and designed to restore the proper functioning of thebody as a complete mechanical and physiological unit. This type of curative treatment is designed to get at the underlying maladjustments on which chronic disease is built or which cause acute reactions and exacerbations to take place with more or less frequency. He follows Dr. Still in condemning almost completely the use of drugs and serums which are unnatural in the sense of being foreign to the body economy. Dr. Littlejohn's ideas seem to represent pure osteopathy in its most complete and effective form, but I would like to take you with me in a respectful attempt to look at them objectively and critically.

Myself I feel that Dr. Littlejohn's conception of osteopathy comes very near to being completely satisfying both in practice and theory and yet

is not quite so. There are two or three criticisms I would like to make. The first is that he follows Dr. Still in almost completely ignoring or playing down all forms of chemical medicine. The second point is that he seems to me to put undue weight on the factor which he calls "environment". It appears to group under this head everything which may be contributing to the sick condition of the patient other than the structural and mechanical factor, including apparently living habits, diet and the psychological condition of the patient. These things he regards apparently as environmental factors which have to be adjusted in some cases but which are of very secondary importance. In many cases they may be so, but I do not think that they are so in all cases. I feel that it would be sounder and more logical to admit that there are other factors besides the mechanical and structural factor by which health is conditioned and which must be given their due place in any complete system of therapeutics. I would also add that in the field of bacteriology Dr. Littlejohn appears to take very much the view of Béchamp as opposed to that of Pasteur and he regards micro-organisms as the result rather than the cause of disease. In so far as they do cause disease they condition its form and manifestations rather than acting as its essential cause. This is a view which has been embraced in its most extreme form by the Nature Cure School or by certain sections of it; I have always been a Béchamp fan and I have a lot of sympathy with it. I am quite certain that both the structural and the chemical condition of the patient have a very great bearing on the problem of immunity. Yet I think that there are certain difficulties in accepting that complete immunity results from either completely sound structure or completely sound chemistry or even from both together. It seems that there are noxious influences or infections which can produce serious reactions in healthy people and healthy animals and plants. What the causes behind this are and how it is best to deal with such situations I do not pretend to know.*

* As instances of this may be cited the fact that apparently very healthy primitive races have suffered severely and been killed off in large number on being first brought into contact with diseases brought to them by European discoverers or invaders. Among animals there has recently been the case of the almost total destruction of rabbits by myxomatosis. With regard to plants we have cases of phenomena such as the Irish potato famine when apparently all potatoes, whether well or badly cultivated, were attacked by disease and destroyed. On the other hand it does appear from the work of Sir Albert Howard and others that crops and animals raised on really healthy soil are relatively immune from disease.

We are all aware that the kind of osteopathic thought which is exemplified by Dr. Still, Dr. Hulett and Dr. Littlejohn has tended rather to go out of fashion in the American Osteopathic Schools. There is still a good deal of talk about Osteopathy being a drugless system of healing and a complete system of therapeutics but in teaching and still more in practice this position has tended to be abandoned. The fact is that Osteopathy has been subjected to very powerful outside pressures from the theories and practices of orthodox medicine and a kind of compromise osteopathic theory has begun to appear. The best and most logical exposition of this kind of theory is to be found in Leon Page's *Principles of Osteopathy* (see especially page 190). This type of theory puts forward the idea that the central pillar or core of a complete therapeutic system is the maintenance of health and the prevention and treatment of disease by structural therapy which includes not only osteopathy but such things as surgery, psychosomatic techniques and the use of physical agents such as Electricity, X-ray, radium and hydrotherapy. However, this therapy can and should be buttressed, as it were, by forms of specific treatment derived from the theories and practice of orthodox medicine.

These treatments may be roughly divided into Substitution Therapy and Adjunctive Therapy. Under the name of Substitution Therapy are included such things as concentrated foods, vitamins, serums, endocrines and biologicals : under the heading of Adjunctive Therapy are included such things as antibiotics, drugs of various kinds, antiseptics, anæsthetics, etc. What are we to think of all this? Undoubtedly there is much of value in a work such as this of Dr. Page. It has a consistent and reasonable approach and it is greatly to be preferred to the indiscriminate mixture of every sort of therapy without any fixed plan or philosophy of treatment or to the playing down of osteopathy until it becomes no more than a specialism or a method of manipulative treatment of very limited and adjunctive application. And yet there is much here which I do not like and which seems to me unsound and full of danger. The thing I feel about it is that this approach gives away far too much to orthodox medicine, drug therapy and the germ theory of disease. Let us take a few points. (1) Surgery. I have no special quarrel with the theoretical approach to this subject in modern osteopathic texts. Conservative surgery has always been regarded as a part of the osteopathic system. I would like however to say that many of the early

osteopaths as well as some of the later ones appear to be too surgically minded. This is, I believe, because surgery which is another form of physical medicine based on anatomical knowledge is in certain circumstances a natural extension of osteopathy, but also because the disbelief of the early osteopaths in any-form of chemical medicine made them turn to surgery for help rather than to any form of chemical medicine such as dietetics or homoeopathy. I think that we should fight against too much surgery and the wrong kind of surgery because the kind of surgery which accords well with osteopathy is quite different from the kind which is believed in and practised by most orthodox doctors and surgeons. We should remember that when surgery is performed it should be conservative, reparative and constructive rather than radical and destructive. There are fundamentally only two absolute indications for surgery (a) the repair of injuries and (b) the repair or normalisation of congenital defects and abnormalities. There are other occasions and certain emergencies in which we may be compelled to use it as the lesser of two evils, but we should realise that its use is to some extent a confession of failure though it may be someone else's failure and not ours. By this I mean that if we have to resort to surgery it means either that we have not known how to prevent some serious situation arising or that there has been a failure to prevent it arising or that we do not know how to deal with it now that it has arisen, except by surgery. We should also bear in mind that the occasions on which surgery should be used are not fixed to the osteopath. It should not be regarded as the routine treatment for any particular condtion or complaint. Every case should be judged on its merits to the best of our knowledge and ability. As our knowledge increases the field of surgery and the necessity for it should grow less. (2) Substitution Therapy. I would agree with Page that there is probably a legitimate field for the use of what he calls Substitution Therapy provided that it is genuine substitution though even here we should proceed with very great caution. There is reason to think that if we give the body large quantities of things which it should be producing itself we encourage it to lie down on the job more than before. Then I think that much substitution therapy may not be genuine substitution therapy at all. Though this is not a subject on which I can claim expert knowledge, I think we can have doubts whether synthetic vitamins, for instance, are really the same as the real article even though the chemical formula may be the same. In the case of the serums which are in common use other objections arise. Apart

from humanitarian or moral considerations, it seems very doubtful whether it can be good practice to fill people full of substances derived from diseased and dead animal tissues and blood. It is my belief that most modern serum therapy is based on a misunderstanding and misapplication of the homœopathic principle and if morbid products are to be used in the treatment of disease it should be done on homœopathic principles and according to homœopathic methods. (3) When we come to the application of so-called Adjunctive Therapy as outlined by Page we are in some respects on very difficult ground because we are assured by the statisticians that some modern preparations such as the sulpha drugs and the antibiotics have been powerful life savers and curers of previously incurable conditions. My feeling is that the antibiotics do have some part to play in genuine therapeutics but that it is a very different part from that which they are being made to play at present. In this connection it is of interest to note that herbalists have long contended that extracts of certain kinds of fungus growths are of value in dealing with certain kinds of acute disease. Also I have heard it suggested that our highly artificial system of agriculture has deprived much of our food of protective principles derived from moulds which grow freely in organic composts and manure heaps. If this is so we may perhaps regard the use of antibiotics in certain circumstances and in suitable amounts as a form of substitution therapy. About the drug treatments, including the sulpha drugs, I feel much less happy. The Nature Cure idea is that all or nearly all acute reactions are healing efforts of nature by which the body is seeking to eliminate poisons or improve its condition in some way or other. This is a process which may need to be guided or controlled or helped but should not be aborted or violently interfered with. It is maintained that the effect of the ordinary kind of allopathic drug treatment with synthetic and inorganic drugs is suppressive rather than curative. These drugs which are toxic and foreign to the body economy have certain effects on the body according to their type and nature and have affinities for certain organs and parts of the body. They tend not to be eliminated readily but to be retained in the tissues where their effect is to destroy the tissues both functionally and histologically. In support of this idea it is claimed that the presence of these drugs can be demonstrated by iridiagnosis and other means. We may have some reservations in accepting all this, but it cannot be denied that many drugs do produce a greater or less deterioration of

mind and body (e.g. narcotics, drugs derived from heavy metals) and that it is at least probable that much of the chronic disease which exists today can be attributed to the skill with which acute disease is suppressed. There can be very little doubt that healing crises do take place even though we may not be able to explain all acute reactions in this way. The early osteopaths, Dr. Littlejohn among them, were dead against putting drugs into the body because they are toxic and foreign to the body economy and make diagnosis and constructive treatment more difficult. This idea seems to me sound, and it has always been a mystery to me that orthodox medicine which admits that fevers and acute reactions are a response of the body by which it is seeking to overcome some adverse condition or thing should so often consider the reduction of fever and the ending of the acute reaction by all possible means as a desirable thing in itself. The important thing to do in an acute febrile condition would seem to be to assist the reaction and not to stop it. This can best be done by helping elimination through skin, kidneys and lungs, supporting and assisting the vital organs and improving the circulation and drainage of the parts and organs particularly affected. To add to the toxæmia by the giving of drugs does not seem very sensible. It is true that acute diseases may be dangerous and cause death or permanent disability if not dealt with in some way, but I think it has yet to be shown that drugs or antibiotics have better results in any disease than a judicious combination of more natural methods such as osteopathy, hydrotherapy, and homœopathy (which last may be a powerful aid in helping the specific response of the body which is required in the circumstances). It must be remembered that it is always the vitality of the body which brings about cure and if this vitality is not sufficient it is not likely to be made so by the use of toxic substances which throw a further burden upon it; if it is sufficient the problem is to direct it and help it. I am aware that in practice it may sometimes be necessary or appear to be so to use drugs or to permit their use by the patient, for instance to relieve pain or promote sleep, until such time as curative measures can be initiated or become effective. It must however be realised that most drug treatments are at best palliative and, if at all prolonged, are harmful. The more we know about more natural methods of palliation and control of symptoms such as pain, the less frequently shall we need to use them. Like much of modern surgery they are a confession of failure and lack of knowledge. I think moreover that we should combat in our patients the modern habit of

never leaving the body and the nervous system alone. Apart from tobacco and alcohol in which we nearly all indulge in more or less moderation, there are far too many people who will not endure the slightest discomfort without taking aspirin or something, cannot sleep without sedatives, wake up without stimulants, or digest without something else. This is deplorable and must tend to produce ultimately a breakdown of the body machinery if not also of the mind.

We have now examined, albeit briefly, the various phases and forms of osteopathic theory from the time of Dr. Still until the present day. I would now like to suggest, with all modesty, a somewhat different way of looking at the whole matter. If we are going to get our politics and education right we must retain our essential principles and yet seek to enlarge them, bring them up to date and fit them into the modern scene. We must on the one hand resist the tendency to allow osteopathy to be confused with manipulation as a method or form of treatment and to become no more than a specialism with an orthodox background. There are unfortunately quite a number of people who would be prepared to sell out osteopathy to the medical profession on these terms and I believe that they should be resisted with all the firmness, wisdom and guile which we can command. But on the other hand, I think we should give up repeating like parrots that Osteopathy is a complete system of therapeutics when in fact it is not and when very few of us really believe that it is. This can only lead to a wide divergence between what we say and what we do, and to the haphazard adoption and use of all sorts of so-called "adjunctives" regardless of their soundness or real value. I think we ought to take a wider and more philosophic view and govern our politics and educational policy according to it. I would suggest that we should look upon bodily health as a sort of edifice which is supported on pillars. As far as we can discern at present there are three main pillars, though there may be others that we do not know about. One of these pillars is the mechanical and structural state of the body itself, another is its chemical integrity or make up, and the third is a mental pillar including the subconscious mind and the emotions. When all these pillars are in good order we get health but when something goes wrong with one of them we get disease. More-over when one of them goes wrong it is apt to upset the other two, but fortunately it is also true that if we do something good to any one of them the other two will be

benefited. Any system of therapeutics which is at all complete must look at any given human problem of disease to some extent from all these points of view, though fortunately for us Osteopaths the osteopathic pillar is for practical purposes so very important and fundamental that it is usually the best place to begin and may be enough to get a result which is satisfactory to ourselves and to the patient. We must however realise that health does depend on other factors besides our osteopathic mechano-structural factor and that there are other laws or principles besides our osteopathic one which condition health and disease and from the knowledge of which techniques can grow which are of benefit in promoting health, preventing disease or bringing about its cure if it appears. Such techniques are not antagonistic to osteopathy or to the osteopathic idea but are complementary to it and can assist it. In some cases they may be of fundamental importance though there is scarcely any sort of a case in which osteopathy has not got some useful part to play at some stage of the proceedings. We must however remember that no techniqus are much good or can work in with osteopathy unless they are governed by or can be reconciled with principles similar to those on which osteopathy is founded. They must be constructive and not destructive and must be aimed at harmonising and normalising the body and liberating and directing the natural healing forces of the body. Unfortunately a very great deal of what is called scientific medicine does nothing of the kind.

It must be realised that we osteopaths, if we know our stuff, can rightly claim to be the best and most advanced exponents of physical medicine.* We owe this to the genius of Dr. Still, but also perhaps to the comparatively advanced state of the sciences of anatomy, physiology and mechanics which he and his followers found ready to their hands. It is quite possible that soon some man or men of insight and genius will do for chemical medicine what Still did for physical medicine. The same may be said of psychological medicine. At present we can at best only dimly discern the principles on which sound systems of chemical and psychological medicine should

* In this connection I believe that the osteopathic system could be enriched by the incorporation in it or the correlation with it of other physical techniques which are of undoubted value in certain cases and for certain purposes. Among these I would make special mention of hydrotherapy, massage, spondylotherapy and certain psychosomatic techniques.

founded and built up. We have a mass of techniques and theories, some of which seem to be reasonable and sound as far as they go and some of them not. I believe that true chemical medicine is as far as possible removed from the kind of commercial chemo-therapy which is at present practised by the medical profession under the constant pressure of the big commercial interests which are behind it. True chemical medicine begins on the farm and in the garden and goes on in the kitchen. When people get ill by having the chemical integrity and balance of their bodies upset it is right and necessary to make some attempt to restore them and to do this requires knowledge and skill especially if the situation is critical and something radical has to be done in a hurry. We are only at the beginning of understanding these things, but I think that there are in existence some useful and constructive techniques as well as some theories which we can safely say have elements or parts of the truth in them. I believe that the chemical medicine for which we may hope will have in it something of homœopathy, something of herbalism, something of nature cure and something of special biochemical techniques based on a detailed knowledge of blood chemistry and of the action of hormones, trace elements and synergists in the body. More than this I will not say except that when we put chemical substances into the body we should avoid things which are toxic and poisonous and aim rather at giving balanced foods which will supply the body with the material which it needs in a form which it can use or substances which will give a specific chemical stimulus to the body of the kind which is needed at the moment.

Now, if we try to look at osteopathic theory in the sort of way that I have here suggested, what practical effect will it have or should it have on our politics and education? This is a matter which we should all think about and discuss. I confess to being worried about our education. In America it has already become far too like the medical education. The average osteopath is far too medically and surgically minded and apt to accept at their face values the latest drug and surgical treatments put out by the medical fraternity and the various drug interests without subjecting them to test of their soundness on principle. We do not want to go the same way. Our teaching should, I think, be less apologetic than it is. In the realm of physical medicine we have got something far better than anyone else and we are entitled

to lay down the law at least as much as anyone else. In the realms of chemical and psychological medicine we do not want to become specialists, but I think that we should know more about these subjects than we do and we should be ready to subject the treatments which are given by persons of other schools, whether orthodox or unorthodox, to a close scrutiny in the light of our osteopathic principles. When we agree with them we should say so and when we do not we should say so and we should give our reasons. We should be very careful about letting medical men loose to teach in our schools in any but the most basic, non-controversial and non-clinical subjects. In the realm of pure knowledge of facts these people are often far ahead of what we can provide among ourselves but their interpretation of the facts and their use of their knowledge clinically is more often wrong than right because very few of them have any basic principles to guide them in how to apply what they know. Their approach is to the disease rather than to the patient, and though scientific in detail it is empirical in its essence, and the specialisms are not pulled together by any unifying concept. I believe that we might help our students most by teaching them Practice in a clearer and more authoritative way. I am much impressed by notes of the late Dr. Littlejohn's lectures which I have been given in which he takes common conditions and diseases one by one and gives a detailed osteopathic approach to them from the points of view both of aetiology and treatment. I think we should revise these and use them, but also in each case correlate them in a critical manner to other orthodox and unorthodox treatments for the same conditions. This is only one suggestion, and I hope that others may emerge from our discussions here today.

THE INTEGRITY OF THE PELVIC GIRDLE

I INTRODUCTION

The importance of the Pelvic Girdle

When one has been in practice for a long time, in my case for over fifty years, one begins to look back and to meditate on what one has achieved or failed to achieve and to ask oneself what one has discovered about the practical application of so-called osteopathic treatment. Osteopathy, as we have often been told, is not a technique but is a system of therapy based on the idea that physiology and anatomy go together and that when anatomy is impaired physiological functioning is also impaired. This implies that we can hope to restore proper functioning of the body or of parts and organs of it by restoring its anatomy to what it should be. However, the anatomy, which we seek to restore must be a living anatomy and not the anatomy of the morgue or of the dissecting room. We must in fact restore the mechanical and postural condition of the body as a whole as well as its bony structure and the free movement of particular joints, important as these may sometimes be.

If I were to be asked what is the most important single thing to be considered in the practical application of osteopathic treatment, I would reply that it is the 'Integrity of the Pelvic Girdle'. The pelvic girdle is so very important because man is made to live, move and have his being in the erect posture. The pelvic girdle, that is to say the sacrum and the two ilia meeting at the symphysis, is the basis or foundation on which the spinal column rests and functions in the erect posture. It is also the central pivot of body mechanics and the place where legs and body meet and through which the connection of the trunk with the ground is maintained. One also finds that in practice an enormous proportion of the symptoms with which one is presented and with which one has to deal are centred in the low back or closely connected with it. The main thing by which the integrity of the pelvic girdle can be destroyed or impaired is by displacements or subluxations of the sacro-iliac joints. When these occur it upsets the whole spinal column mechanically and structurally and also has very far reaching

effects on the central nervous system (both spinal and autonomic) on account of the reflexes and irritations which are initiated. To put it another way: when there is sacro-iliac derangement it constitutes a fault or pathological state in posture and mechanics with which the body has to cope or for which it must compensate (or try to do so) structurally, mechanically and neurologically.

It can be affirmed that the sacro-iliac joint is a unique joint which differs from other joints in the body which are moved and supported by opposing sets of muscles and have a pretty obvious range of movement. The sacro-iliacs on the other hand, besides being peculiar L-shaped structures, have physiologically very little movement at all and are supported mainly by a strong and complicated system of ligaments. I would suggest that they should be looked upon as shock absorbers rather than as joints in the usually accepted sense. Sacro-iliac 'lesions' too are different from other lesions though there can be no doubt that they occur very frequently and, indeed, almost universally among those who come to us as patients. Although this is a thing which is often denied or overlooked by many practitioners. The ordinary 'osteopathic lesion' is generally envisaged as a condition in which the mobility of a joint is impaired or the positioning of a bone is abnormal, but within the normal range of movement of the joint.The sacro-iliac lesion is really rather different from this. It is, I would suggest, a genuine subluxation or dislocation, which takes the articulation outside its normal position and range, even if this is only to a very slight degree in many cases.

Though there may be other disturbances, notably of the sacrum, which impair the integrity of the pelvic girdle, there are, for practical purposes, two common lesions of the sacro-iliac joint, one of which shortens the leg and the other which lengthens it. The main reason for the importance of these lesions from the point of view of body mechanics is, in fact, that they do alter the relative length of the two extremities and upset the sacral base on which the spinal column rests and functions. The short-leg lesion, (sometimes called 'posterior' and sometimes 'inferior-lateral') is far the commonest, but the long-leg lesion (anterior' or 'superior-medial') is often present and can produce very marked symptoms. It is to be noted that there can be any combination as between the two sides. That is to say, there can be a

shortness on one side and normality on the other; there can be shortness on both sides; lengthening on one side, or on both; lengthening on one side and shortness on the other. Thus, any combinaton being possible, skill in diagnosis must be developed because to get good results both sides, when necessary, must be adjusted with absolute accuracy.

A difficulty which, can arise both in diagnosis and in treatment is sometimes occasioned by what is called the 'primary' or 'anatomical' short leg, in which condition there is a difference in the actual length of the bones on the two sides. This, in spite of what is often asserted, is a rare condition and when it does exist there is nearly always an explanation to be found in the history of the case (such, for instance, as fracture or polio having affected one side). It is only when it is impossible to get the two sides to match up that it is reasonable to suspect a primary short leg. If a primary short leg is suspected it is generally considered to be useful and desirable to clinch the diagnosis by having a standing x-ray taken. This is undoubtedly a good thing to do in principle but it must be remembered that it is quite possible for the results of such x-rays to be misleading. Not only must the greatest care be exercised in the taking of the film, but it is imperative that any subluxation of the sacro-iliacs which is present be corrected before the film is taken. This is to say that the pelvis must be squared off before the exposure so that any discrepancy in the lengths of the two extremities which shows in the x-ray may be attributable with certainty to a real difference in the length of the bones on the two sides. Even if all these precautions have been taken, there is still some possibility of error. Owing to some differences in the condition of the foot, ankle or knee on one side, leading to a discrepancy at the level of the acetabula, which is not due to a genuine difference in the length of the bones of the two extremities, but to lesions in the foot, ankle or knee on one side, which lesions should be correctable with proper treatment.

Another method of being sure that the pelvis is squared off properly before filming is to lie the patient on his face and carefully to compare the position of the posterior-superior spines on the two sides in relation to the sacral spine. If the sacro-iliac joints are properly aligned the levels of the spines and their distance from the mid-line should be equal. If they are not equal it will imply that one or both sides require

adjustment. Until such adjustments have been made, there will be a shortening or lengthening of the extremity on the side of the lesion, shortening if the posterior-superior spine is down and lateral, lengthening if it is up and medial. In genuine cases of anatomical short leg the use of a heel or sole lift is good, but not otherwise, except perhaps occasionally and temporarily during a period of treatment. There is, unfortunately, little doubt that there is, at the present time, a great deal of wrong thinking and doing in connection with the so-called short leg. It is frequently stated that genuine primary short legs are very common (some say in as much as 20 per cent of the population) and that sacro-iliac lesions are commonly the result of short legs and are often a form of compensation for them which should not be unduly interfered with.

I am convinced from long experience that this way of looking at the matter is a very grave error leading both to the excessive use of heel lifts and to a failure to get satisfactory results in the treatment of low back conditions and, indeed, of the spine generally. I say this because I have seen so many cases of patients who have had back trouble for many years and have obtained little or no relief from manipulative treatment, in many cases at the hands of eminent osteopaths, but who have responded very well to treatment once the pelvis has been properly diagnosed, corrected and kept corrected. The idea that sacro-iliac lesions are often the result of short legs is actually the reverse of the truth, which is that sacro-iliac lesions produce a shortness or a lengthening of the leg which will disappear when the lesion is corrected. If this is realised it will be found that while true anatomical short legs are very rare, sacro-iliac lesions are very common in spite of the fact that the opposite opinion is often held and expressed.

II DIAGNOSIS AND TECHNIQUE

The correction of sacro-iliac lesions is not a matter of difficulty unless there is some bony abnormality or bone deterioration, but the maintenance of corrections is sometimes very difficult indeed. When such lesions have been present for some time they become the basis of a host of troubles in other parts of the body and particularly of scoliotic tension curves in the spine. Mackinnon, with whom I worked as an

assistant in Canada many years ago, trained me never to give an osteopathic or manipulative treatment without first checking the pelvis at the beginning of the treatment, and making any necessary corrections. For a double check the same was to be done at the end of the treatment. Any practitioner who adopts this routine will soon become convinced of the importance of sacro-iliac lesions on account of the effects which they have on the mechanics of the body, on the nervous system, both spinal and autonomic, and on the postural pattern which a person builds up and exhibits. There are cases in which there is much to be said for doing little or nothing at the first treatment beyond making a careful pelvic adjustment, and it will be found at the next treatment that the tensions and distortions have so far improved that they can be dealt with easily.

It must however be remembered that when a bad postural pattern has been built up in the body there tends to be a reciprocal action between the pelvic girdle and the tensions and distortions which have been built up. This explains a very large number of the cases in which the pelvis is very unstable and in which the body readily and on the slightest provocation falls back into a bad old mechanical and postural pattern. A very helpful way in which to approach this difficult problem of stabilising an unstable pelvis is to try, by suitable myo-fascial techniques, to balance the musculature on the two sides of the body, paying particular attention to the muscles around the pelvis and attaching to it, as, for instance, adductors, hamstrings, glutei, gastrocnemii, quadrati, recti-femoris, psoas and others. It must always be borne in mind that the ultimate aim of manipulative treatment is to make perfect the postural and mechanical condition of the body so that the gravity line from head to foot is restored and mainained and the musculature is so balanced that the body and its parts are not fighting all the time against the law of gravity but are co-operating with it, or at least being well supported in the gravity field without strain, rather in the way in which a tent is held erect by well adjusted guy ropes.

The method which the practitioner uses for the diagnosis and treatment of sacro-iliac lesions is largely a matter of individual choice and there are various different techniques which can be employed. However, the Mackinnon techniques, which are the ones which I have used for many years, would appear to be superior to most others, and would be

difficult to improve upon. The advantages of the Mackinnon method are, first, that it enables accuracy to be easily obtained in diagnosis both before and after adjustive procedures, for it is very important that there should be complete accuracy in this regard; secondly, the adjustive techniques used are absolutely non-traumatic and cannot lead to any strain of ligaments, a thing which is important because weakness or strain of ligaments are the accompaniment or even the cause of these lesions, especially in cases of chronic pelvic instability, when the instability is likely to be increased by any techniques involving powerful leverages or thrusts.

In theory the Mackinnon method is simple, and the techniques involved in the different manipulations are not, in themselves, difficult to perform, but even those who are trained in manipulative work may find that much patience and practice are necessary before the skill can be acquired which will enable them to obtain complete accuracy in all cases, either in diagnosis or in treatment, for, in correction of lesions of the pelvic joints accuracy is of the very highest importance, and without it it is impossible to get good results or to make corrections which are reasonably stable and permanent. Many joints in the body can, it would seem, be restored to normal function and efficiency by manipulation of a general character designed to gap the joint or to put it through something like its normal range of motion. With sacro-iliac joints, however, nothing less than complete and mathematical accuracy will suffice to produce really satisfactory results. It is failure to recognise this fact which accounts for many of the failures of osteopathy and for the inability of many osteopaths to give quick, complete or permanent relief in cases which ought to be readily amenable to osteopathic treatment.

It must be noted at the outset that considerable confusion can arise and has arisen over the matter of nomenclature. There are two misplacements or lesions of the sacro-iliacs which are very common. One of these, which produces a pulling up or shortening of the leg is very generally called a 'posterior innominate', the other, which causes a lengthening of the leg, being called an 'anterior innominate'. The exact reason for this nomenclature is not very clear and it can be somewhat misleading. Mackinnon always described the short leg lesion as an anterior-inferior-innominate' and the long leg lesion as 'posterior-

superior-innominate. This nomenclature which is based on the change of position of the posterior-superior iliac spines is sound enough in that in the short leg lesion the posterior-superior spine is found to move downwards and forwards while in the long leg lesion it is found to move upwards and backwards. However, the important thing is that in the short leg lesion the ilium moves away from the lie of the sacral spine and in the long leg lesion it moves nearer to that line. It would therefore seem that 'inferior-lateral' and 'superior-medial' might be the best description of the two lesions. This is the nomenclature which I have used and I believe it to be the most sound as being in conformity with what actually happens and also with the facets of the L-shaped joint. However, if there is any danger of confusion there is much to be said for describing the lesions as 'short leg' and 'long leg' respectively and leaving it at that.

There are according to Mackinnon five distinct displacements or lesions which can take place between the ilia and the sacrum and it should be noted that more than one of them can be present at the same time.

The five lesions are:
A. Inferior-lateral Innominate (short leg)
B. Superior-medial Innominate (long leg)
C. Anterior Ilium or Posterior Sacrum
D. Posterior Ilium or Anterior Sacrum
E. Tilted Sacrum

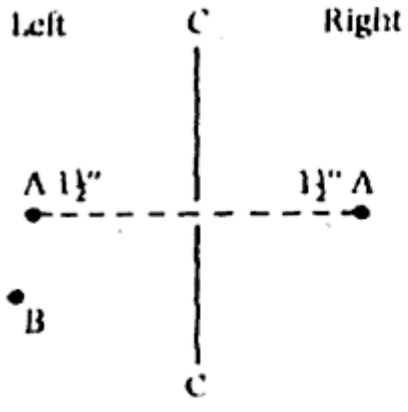
The first two of these lesions are by far the most common; they are, in fact, so common among those suffering from low back trouble as to be almost universal. These first two lesions should be dealt with first before any attempt is made to deal with any of the other three, which may be present in addition. These three really indicate that a torsion, side bending or tilting of the sacrum has taken place and they appear to result in most cases from violence of a fairly serious character.

The first thing to be learnt is the diagnostic points by which these lesions can be distinguished. The 'inferior-lateral' (short leg) innominate is so called because of the downward (caudad) and lateral movement which takes place in the position of the posterior-superior spine of the ilium on the side of the lesion. This downward and lateral

movement at the back causes an upward movement of the acetabulum and so brings about a shortening of the leg. A diagnosis can therefore be made by the following three signs: (1) the posterior-superior spine of the ilium is moved in a downward direction; (2) it is also moved laterally away from the vertebral column, and (3) the leg is pulled up or shortened on the affected side in proportion to the seriousness of the lesion. The 'superior-medial' (long-leg) innominate is so called because of the upward (cephalad) and medial movement which takes place in the position of the posterior-superior spine of the ilium on the side of the lesion. This upward and medial movement at the back causes a downward movement of the acetabulum and so brings about a lengthening of the leg. A diagnosis can therefore be made by the following three signs: (1) the posterior-superior spine of the ilium is moved in an upward direction, (2) it is also moved medially towards the vertebral column, and (3) the leg is pushed down or lengthened on the affected side in proportion to the seriousness of the lesion. These two lesions are far more common than the other three and the inferior-lateral (short leg) appears to be the most common of all and is more often found on the left than on the right side. The two lesions are illustrated in Figures 1 and 2. The amount of the movement of the ilium and of the consequent shortening or lengthening of the leg can vary from the smallest perceptible amount to half an inch or even more. There may be a lesion on one side or on both. In such cases it may be necessary to rely almost entirely for diagnosis on the position of the posterior-superior spines of the ilia with refrence to the vertebral column. This in turn may produce difficulties because there are variations in the normal position of the posterior-superior spines, but it is a help to remember that in most adults the normal position of the spines is approximately 1½ inches from the line of the vertebral spines and is at about the level of the spinous process of the fifth lumbar vertebra, or a little lower.

In making a diagnosis of these lesions a routine should be developed. For instance, make the patient lie flat on the back on the treatment table. Ask the patient to draw the knees up to the fullest extent with the feet on the table, raise the hips from the table, then put the hips and legs back on the table in a thoroughly relaxed position. Now stand at the foot of the table, grasp both legs around and just slightly above the ankles, with the hands at the back of the legs. See that the legs are thoroughly relaxed, which can be done by drawing them apart and

Figure I

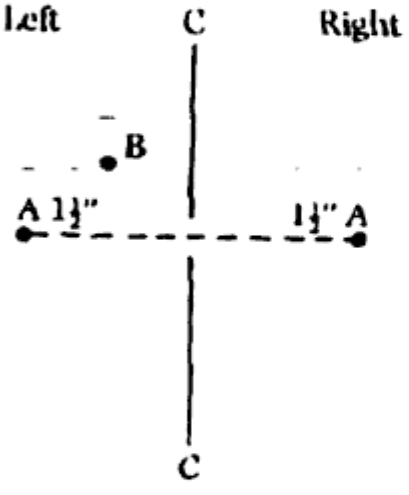


A. Normal position of posterior-superior spine of the ilium.

B. Position (approximate) of the posterior-superior spine when an Inferior-lateral lesion is present (on the left side).

C. The lumbo-sacral spinous processes.

Figure II



A. Normal position of posterior-superior spine of the ilium.

B. Position (approximate) of the posterior-superior spine when a Superior-medial lesion is present (on left side)

C. The lumbo-sacral spinous processes.

bringing them together again in a from and to movement, which will reveal any tension which the patient may be applying at the hips. Ascertain whether the two internal malleoli correspond as to length. If one leg appears to be shorter, let it be well noted in the mind. The next move is to ask the patient to lie face downwards on the table, the arms alongside the body, the toes and insteps over the foot-end of the table. The positions of the posterior-superior spines should then be examined. If one leg has been found to be shorter than the other, there should be a corresponding difference in the relative positions of the posterior-superior spines with reference to the vertebral spines. Since the normal position of the posterior-superior spine is approximately one and a half inches from the line of the vertebral spines it should be possible to determine what lesion, if any, is present on each side.

The object of this procedure is to provide a double check in diagnosis. By comparing the length of the legs it is usually possible to discover whether or not any lesion is present and to arrive at some idea of the nature of the trouble, but the findings of this comparison should be supplemented by examination of the position of the posterior-superior spines of the ilia made from behind with the patient lying face downwards. Indeed, the final determination of whether or not the pelvis is properly balanced and free from lesioning must be based on the position of the posterior-superior spines. For it must be remembered that it is possible for both sides of the pelvis to be in lesion in the same manner and in the same degree and for the legs, therefore, to be the same length, and also there are rare cases in which there is a so-called 'primary' or 'anatomical' short leg which will produce a discrepancy in the length of the legs, although there is no sacro-iliac lesion present.

It may here be noted that the techniques hereafter given for the correction of the two lesions, if properly performed, do not seem ever to lead to over-correction. It may therefore be legitimate in difficult cases to perform the two corrective procedures on both sides, and if, after this has been done, the length of the legs still appears uneven it is very strong evidence indeed that one has to deal with a case of 'primary' or 'anatomical' short leg. Moreover, it should be remembered that in many cases in which there is a gross lesion on one side it will be found, after this has been corrected, that there is another lesser lesion on the other side which was not at first easily apparent. It is well, therefore, to make a habit of repeating the diagnostic procedure outlined above after every correction so as to be quite sure that a further correction on the other side is not also required. Satisfactory results and stable corrections cannot be obtained unless a complete correction is made on both sides.

The diagnosis of the three conditions which are described as Anterior Ilium (or Posterior Sacrum), Posterior Ilium (or Anterior Sacrum) and Tilted Sacrum is not easy and it should not be undertaken until the actual sacro-iliac lesions, if any, have been corrected. However, when this has been done, it will sometimes be found that something more is required. If the patient is placed lying on the face it may be found that the whole pelvis slopes away somewhat to one side or to the other and that one ilium is pushed forward and/or that the other is pulled back. If an ilium is anterior, its posterior-superior spine is less prominent than

it should be in relation to the sacrum, while if the ilium is posterior its posterior-superior spine is more prominent than it should be. It is possible to make a careful comparison of the amount of drop off the ilium onto the posterior aspect of the sacrum on each side. Moreover, by placing the hands on the anterior-superior spines of the two ilia it is possible to detect any difference there may be in their relative positions. In many cases it will be apparent that on one side the ilium is splayed outward and forward and/or that the other ilium is drawn inward and back. In such cases where the two sides of the pelvis are uneven it may be a matter of some difficulty to determine the side on which the trouble, or the greater part of it, is present, but generally the symptoms which the patient is exhibiting will give valuable help in coming to a decision. In many cases, too, there is considerable tenderness on continued pressure at points along the crest of an ilium which is in lesion, on the prominences of the bone and on the posterior aspect of the sacrum.

Finally, the condition known as Tilted Sacrum is something which sometimes occurs. In this case the sacrum is tilted slightly to one side or the other so that the sacral spine is deflected somewhat out of the vertical and median plane but without either of the ilia necessarily being pushed forward or backward with reference to the sacrum. The superior portion of the sacrum may be tilted either to the right or the left, and it is usual for it to be moved towards the side of the convexity of a lumbar curvature if such a curvature is present. There is generally a point of tension and tenderness in the region of the sacro-iliac on this side and another point of tension on the other side in the region of the sacro-coccygeal articulation. The condition is, indeed, frequently associated with tenderness and displacement of the coccyx and also with lesions of the lumbo-sacral joint. Tilted Sacrum is, in fact, essentially a sacral lesion and must be regarded and dealt with as such.

The techniques used by Mackinnon for dealing with the five lesions must now be considered

A. The technique for the correction of an inferior-lateral (short leg) lesion has two distinct parts or movements. In some cases the correction is completely made by one of the movements, but it is better to perform both, so that there may be no mistake. Sometimes it is

possible to detect a distinct movement of the bone at some stage of the procedure, but it is not always the case and, if nothing is felt, it does not follow that a good correction has not been made. It is however important that the correction should be accurate and complete. (1) Place the patient lying on the side opposite to that on which the lesion is present. Let the patient put the palms of his hands together and place them under his cheek on the table, and draw both knees up slightly. Begin operations by relaxing the spine to some extent and, when it is sufficiently relaxed, place the upper leg at the back of the lower, so that its knee lies immediately behind the other on the table. The operator should then place the soft pad of his forearm, just below the elbow, on the posterior-lateral aspect of the ilium. It should be placed on the soft glutaeal part of the buttock between the acetabulum and the brim of the pelvis and just caudad to the posterior-superior spine. The operator's other hand should be placed on the shoulder of the patient and he should push away slightly with his hand at the same time drawing the pelvis slightly towards himself with the arm which is on the hip, so as to make the body taut and to get the pelvis in a good firm and comfortable position perpendicular to the table. Then when the pelvis feels firmly held between the forearm and the table, apply a firm, sharp rotary thrust to the ilium, the rotation of this thrust being directed, first somewhat in the direction of a point behind the lumbar portion of the patient's back, and then towards the pelvis and the table. Care must be taken not to bounce on the pelvis in giving the thrust but to hold the pelvis firmly between the forearm and the table up to the moment of giving the thrust or squeeze. It is also important that the operator should be well above the patient when he makes the thrust downwards on the pelvis; this may require a lowering of the table or that the operator should have something on which to stand to raise himself up a little. (2) Repeat exactly the same movement again, but with the relative position of the two knees altered, so that the knee of the upper leg lies immediately in front of the other on the table. 3) There is another technique for the correction of an inferior-lateral innominate which Mackinnon believed should be applied in addition to the above two procedures because he found in some cases that he got better, more stable and more complete results with it than with the other two alone. In truth I have not been able to convince myself that this procedure is in any way better or more easy to apply than the other two or that it is necessary to use it in addition to them. It is, however, a technique

which has been widely used in the osteopathic profession and I am including here a description of it, as follows. Make the patient lie flat on the back, draw up the knee of the affected side, grasp it firmly with the arm round the leg and thigh close to the knee, at the same time placing the flat of the palm of the other hand on the flat lateral portion of the pelvic bone. This can be done by sliding the fingers under the buttock until the palm of the hand meets the side of the pelvic bone. Give a thrust down-ward with the arm holding the knee, at the same time thrusting the pelvic bone towards the sacrum with the palm of the hand. After these techniques have been carefully performed the diagnostic procedure should be repeated so as to ascertain what has been accomplished and whether any further correction on either side is required.

B. Technique for the correction of a superior-medial innominate. Make the patient lie face down, with the toes over the foot-end of the table. Stand on the opposite side of the body to that on which the lesion is, hook the palm of one hand under the patient's thigh and place the heel of the other hand on the posterior-superior spine, cupping it round the spine and being careful to use the pisiform portion of the heel of the hand. First move the limb slightly laterally. This makes the posterior-superior spine more prominent so that it is possible to get a better purchase on it with the heel of the hand. Then bring the limb inwards again to the medial line and raise it slightly from the table. The patient must completely relax the limb so that its weight is entirely supported by the operator. Now, supporting the leg quite still in this position give a sharp thrust with a stiff arm in an outward and downward direction so as to rotate the innominate into its proper position. Sometimes, but not always, the movement of the bone can be felt under the heel of the hand when the corection is made and sometimes a slight click may be heard.

The techniques here described for the inferior lateral and superior-medial lesions have been given in the original form as used and taught by Dr Mackinnon. Since his time some of those who have used these techniques have introduced modifications which are undoubtedly effective in most cases, if not in all, and which may be regarded as improvements or simplifications. It has been found that if the patient is placed lying on his face in the manner described in the case of the

superior-medial lesion, it is possible to make the correction without holding up the patients limb and simply allowing it to rest relaxed on the table, the second hand then being used to pull upwards on the anterior-superior spine. Also with the patient in the same position it has been found possible by some experienced practitioners to correct both the inferior-lateral and the posterior-medial lesions by a method which does not involve any thrust at all. The operator stands at the side of the table and places the palms of his hands (one reinforcing the other) on the patient's buttock and makes the correction by firm pressure on the pelvic bone in the required direction. In the case of the inferior-lateral lesion the hands must be placed low on the buttock below the sacro-iliac joint and the pressure must be made in an upward and medial direction. In the case of the superior-medial lesion the hands must be placed high on the buttock above the sacro-iliac joint and the pressure must be made in a downward and outward direction. The pressure used must be firm, but to get the best results it should be rhythmical and synchronised with the patient's breathing. For the correction of the inferior-lateral lesion the operator should stand on the side of the lesion, but in the correction of the posterior-medial on the opposite side. It should also be noted that some progress has been made in devising methods by which a person can correct his own sacro-iliac. It should be possible for him to do this by getting into positions where he can, with his hands,produce the necessary force and pressure at the right place and in the right direction. This is not too difficult in the case of the short leg lesions which are the commonest, but it is more difficult in the case of the long leg lesions.

C, D and E. Techniques for the correction of sacral lesions.

Some sacral lesions, and particularly a Tilted Sacrum, can often be corrected by simply making thrusts on the sacrum or ilium from above with the reinforced heel of the hand in whatever direction is indicated in the particular case, but in many cases it is advisable or necessary to make use of a two-man technique in which the practitioner himself makes a corrective thrust on the sacrum and/or ilium, while an assistant at the same time pulls on the leg so as to make a pull on the ilium. For this procedure to be effective it is necessary for the pull on the leg to be synchronised very carefully with the thrust. This can be achieved by one of the operators counting, 'one, two, three... go' so that the two movements are exactly simultaneous. The pull on the leg does

not need to be very hard, but it should be quick, firm and decided and the patient can be asked to grasp the head of the table with his hands so as to resist the pull on the leg when it is made. If it is desired to correct an anterior ilium (posterior sacrum) the practitioner should stand on the opposite side of the table and grasp the anterior of the ilium with one of his hands, he should place the heel of the other hand on the most prominent portion of the posterior surface of the sacrum. After getting a firm grip and taking up the slack the thrust is made by pulling the ilium up and back towards the spine with one hand and at the same time thrusting down on the sacrum with the other. It is sometimes necessary to perform this movement more than once, but if it is done properly and synchronised with a pull on the leg it is usually possible to bring about a satisfactory correction by means of a movement of the bones which can be distinctly felt.

In the correction of a posterior ilium (anterior sacrum) the movements to be made are very similar, but in this case no thrust must be made on the sacrum. One hand grips the anterior-superior spine and the crest of the ilium while the heel of the other hand is placed on the posterior-superior spine. The main thrust is made on the posterior-superior spine in a downward and outward direction, but at the same time an attempt should be made to pull the anterior-superior part of the ilium downwards and forwards with the other hand. In this case too the thrust should be carefully synchronised with a pull on the leg and it is again possible that several thrusts will have to be made to effect a satisfactory correction. A careful check should be made after each thrust especially if it has been possible to feel a definite movement taking place, because it is possible, at least in theory, to make an over-correction with the techniques for anterior and posterior displacements of the ilium.

The correction of a Tilted Sacrum can often be achieved by thrusting downwards and side ways on the sacrum with the heel of the hand in such a way as to push its superior and inferior portions in the direction required in the particular case. A good deal of force should be used and both hands should be used to make the thrust, one acting as a reinforcement of the other. In the more difficult cases it is sometimes advisable to have an assistant to pull on the leg at the same time in the same manner as in the techniques for anterior and posterior ilium. It is often possible to relieve tenderness and tension in the region of the

sacro-iliac joint by a sharp pull of this kind on the leg even without any thrust being applied to the sacrum itself.

These techniques for the correction of sacral lesions are no doubt valuable. It is possible for various torsions and fixations of the sacrum to arise which hold it in an abnormal position between the ilia but which do not disturb the sacro-iliac in such a way as to alter the relative length of the two extremities. When this has happened it is often possible to rock the ilia on the sacrum in such a way as to correct the abnormality. However, in a general way when this kind of trouble has arisen it is a sign that the pelvic muscles and the fasciae and ligaments of the region are out of balance and have lost their tone and elasticity on one side or on both. I would feel that the best way of dealing with such a situation is by myofascial techniques aimed at balancing up the pelvic musculature rather than relying solely on the sacral techniques here described.

In connection with all the pelvic lesions it must be remembered that after a correction. especially if it is for the first time, there is likely to be a more or less serious reaction, lasting from one to three or four days, during this period the patient's symptoms may become aggravated and he may develop others, such as pain or discomfort in the lower back and legs. These reactions are the result of the sudden over-flow of blood into the parts as a consequence of the sudden removal of the disturbing influence of the lesion. If the patient continues to feel distress for longer than three or four days it generally means that the correction was not properly made or that it has not been maintained. It is also important to emphasise again that it is very common for both sides of the pelvis to be in lesion. If an inferior-lateral or superior-medial lesion is present on one side it is possible that one or the other of them is also present on the other side, even though it may be very slight in amount. If this second lesion is not corrected there is likely to be a continued or even increased discomfort and there is small chance of the first correction being maintained. It is, therefore, essential, after the correction of the greater or more obvious lesion, to make sure that any slighter lesion which may be present on the other side has been properly corrected.

It must be noted that Mackinnon and his friends worked out his method

of diagnosis and treatment at a time prior to the development of the concept of Cranial Technique. The exponents of Cranial Technique have drawn attention to movements which take place in the skeletal system of the body and to the reciprocal action between the two ends of the spine in which the occiput and the sacrum are both involved. In dealing with the sacral base of the spine and seeking to give it stability consideration of the pull being exercised on the sacrum from above may need to be considered especially in cases where scoliotic curves have been developed.

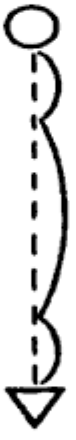
III CURVATURES

There can be very little doubt that the great majority of the functional and postural curvatures which are to be found in many spines originate, in the first instance, from misplacements of the pelvic bones. Even in the case of organic curvatures it can often be shown that lesions of the pelvic joints have played a great part in the production of the condition and in the determination of its particular conformation. Moreover, it will be found that the curvatures which appear bear, as a general rule, a very definite relation to the particular lesions which exist, or have existed, in the pelvic region. There are, of course, exceptional cases in which the curvatures present do not follow the usual pattern, but these are not sufficiently numerous to prevent the laying down of a general rule; also, in many such cases it is possible to discover a history of some rather exceptional injury or circumstance which accounts for the unusual nature of the curvatures.

The curvatures which come into being in the spinal column as the result of innominate lesions appear to be due mainly to the alteration which takes place in the relative length of the two legs. The necessities of proper balance and locomotion cause the spinal column to develop curvatures in an attempt to compensate for the difference in the length of the two legs. Also, all pelvic lesions produce some malalignment of the sacrum on which the spinal column rests and some strain on the spinal musculature and ligaments. These conditions naturally lead to the appearance of curvatures. The careful taking of many case histories has revealed the fact that the nature of the curvatures is generally determined by the first serious innominate lesion to take place and by

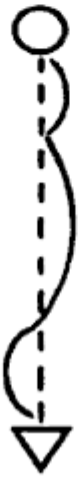
the particular nature of that lesion. It is important to note that it is the first lesion in time which determines the curvature and not necessarily the lesion which is most marked at the time at which the examination is made. The curvature which is produced by a right innominate lesion will have its convexity to the right in the lumbar region, and the curvature which is produced by a left innominate lesion will have its convexity to the left in the lumbar region. If the lesion is inferior-lateral the direction of the curvature in the dorsal region will tend to be the same as it is in the lumbar region. On the other hand, if the lesion is superior-medial the curvature will be to the opposite side in the dorsal region. In the cervical region the curvature is nearly always to the same side as it is in the dorsal region. The two diagrams which follow give an idea of the typical curvatures produced by the two types of innominate lesion.

Figure III



Typical curvature produced by a right Inferior-lateral (short leg) Innominate lesion.

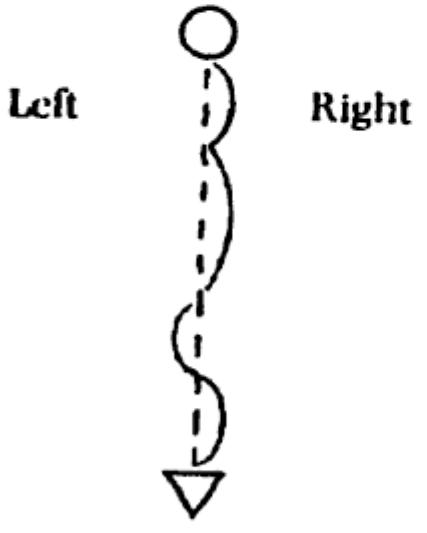
Figure IV



Typical curvature produced by a left Superiormedial (long leg) Innominate lesion.

It must, of course, be understood that there are numerous minor variations within these two general patterns, in addition to some absolute exceptions. The variations are determined by special idiosyncracies of strength or weakness in the particular spine as well as by injuries or special strains to particular parts of it. Such special strains are often due to a more or less severe displacement of the other innominate taking place after the first lesion has begun to produce a curvature. This second lesion may considerably modify the curvature without actually changing its general conformation. In particular, it is very common in the case of the type of curvature illustrated by *Figure III,* for the curve to cross over the mid-line for a short distance before shifting back to the original side. This crossing over is most common in the region of the lumber-dorsal junction, but may also occur in the cervico-dorsal region. The diagram which follows illustrates this type of curvature.

Diagram V



A modified type of curvature often produced with a (right) Inferior-lateral Innominate as the main lesion.

The determination of exactly what type of curvature is present in a given case is not always easy, but it is very important that it should be undertaken. The successful treatment of the spine, especially in chronic cases, depends very largely on doing something to reduce the curvature and to relax the tense spinal tissues on the side of the convexity in each region of the spine. Unless work on the curvature is combined with the correction of the innominates and of other specific lesions which may

be present it is difficult to obtain satisfactory results or to maintain the pelvic corrections which have been made. The curvatures and the innominate lesions together constitute a vicious circle. If the innominate lesions are, in most cases at least, the primary cause of the curvatures, the curvatures when they become established help to maintain the pelvic lesions and to cause them to recur if they are corrected.

Dr Mackinnon's information and theories about curvatures are based on many years of observation and spinal examination of patients. He was also a skilled exponent of iridiagnosis and he claimed that it was possible by means of its use to trace the course of irritations and tensions starting in the pelvic region and spreading into other parts and organs of the body. This is obviously a field in which more research and observation is desirable and some might contend that Mackinnon's analysis of the origin and form of the curvatures and tensions which occur in the spine is incomplete or incorrect in some respects. I can, however, say with certainty from my own experience and observation that to restore and maintain the integrity of the pelvic girdle is the key to the successful treatment of all parts of the spine and also, to a great extent, of the extremities. The reason for this is that the pelvic girdle is the foundation on which the spine rests and the central pivot on which the mechanics of the whole body depend. When it goes wrong the body is forced to compensate or to try to do so, in some way and to some degree, both in order to maintain the erect posture and to move the body and its parts in a satisfactory way. This is the beginning of all sorts of structural, postural and mechanical strains, weaknesses and abnormalities. Also pelvic lesions produce a reflex effect on the nervous system, both somatic and autonomic, which can be very strong and far reaching. One must remember that although the body has parts it is essentially a unity, and the same applies to the nervous system. The maintenance or restitution of the gravity line is the key to sound posture and body mechanics and the integrity of the pelvic girdle on which the spinal column rests is essential to the maintenance of the gravity line.

IV SYMPTOMS

The importance of pelvic lesions is due not only to the curvatures which they tend to produce or to maintain, but also to the peculiar

irritations which they set up in pelvic nerves and, indirectly, in the nervous system throughout the body. The result of these irritations is to upset the nerve and blood supply to many of the parts and organs of the body and to produce a whole host of symptoms the exact cause of which has hitherto been little understood. In some cases such symptoms will disappear with miraculous swiftness if the pelvic lesions are corrected and maintained in correction, but in other cases where the condition is of long standing or in which it is complicated by chemical conditions in the body, cure may be a long and difficult matter. Much observation and experience have, however, led to the conclusion that certain symptoms can definitely be associated with particular lesions of the pelvis, and that the removal of such lesions is the first step which must be taken to remove the symptoms.

The first point to be noticed is that right innominate lesions seem to produce a very special effect on the gastro-intestinal system, while left innominate lesions mainly influence the genito-urinary and circulatory systems, including the function of the heart itself. Thus, when a patient is suffering from head-ache, indigestion, flatulence, gastric ulcer, disturbances of bowel function, haemorrhoids, etc, it is practically certain that a right innominate lesion will be found, though the migraine type of headache is very commonly associated with a left innominate lesion. On the other hand, a patient with heart trouble, menstrual trouble, bladder or prostate trouble, night emissions, etc, is almost certain to have a lesion of the left innominate bone. The truth of these general propositions can very easily be tested by anyone who is capable of making accurate pelvic corrections on small children, who react very quickly and readily to corrections of this kind. There are very few cases of digestive dysfunction in children which will not yield to correction of a right innominate lesion provided that the child is being properly fed, and there are very few cases of bladder irritation and bed wetting which will not similarly yield to correction of a left innominate lesion.

The vomiting of pregnancy is a condition which seems almost always to be due to an Inferior-lateral lesion of the right innominate. After the adjustment is made it must be maintained, though this is not usually a difficult matter in these cases, and it is sometimes necessary to give the patient very easily digested nourishment, such as goat's milk, for a

short time, until she is gradually able to take more solid food, but most cases will improve with surprising rapidity.

An Inferior-lateral right innominate produces an irritation and distension of the gut which appears to be the predisposing cause of appendicitis. The same lesion is also a factor in most cases of gastric and duodenal ulcer as well as in most cases of diarrhoea and many cases of headache. In cases of ulcer attention should also be given to the region of the sixth, seventh and eighth dorsal, and in cases of headache to the liver area and the neck, but these lesions are nearly always secondary to an Inferior-lateral right innominate. In the same way, nearly all cases of rectal irritation and haemorrhoids will be found to be due to an Inferior-lateral right innominate, though bleeding from the rectum usually indicates that there is an Inferior-lateral left innominate

Bed-wetting in children and night emissions in adults are sometimes tedious to treat successfully, because the pelvic nerves are often very much irritated and it is necessary to maintain the corrections made for a considerable time before the irritation dies down sufficiently for the symptoms to abate entirely. However, these conditions are generally due to an old standing Inferior-lateral left innominate. The same lesion is often responsible for bladder irritation, kidney disturbances and undue frequency of urination. Stoppage of urination is a condition which is often caused by an Inferior-lateral lesion of both innominates. In such cases a careful correction of the pelvis should be made. If this is done before the bladder has become too full it may relieve the condition without much further treatment, but in severe cases it may be necessary to use the catheter after the necessary corrections have been made.

The most stubborn cases of constipation can be produced by a Superior-medial left innominate. Inferior-lateral lesions of either innominate, especially the right, will tend to produce diarrhoea at first, but constipation may follow later with gas formation and broken stools.

An Inferior-lateral left innominate is the lesion which is specially associated with menstrual and uterine disorders of all kinds. It will often cause local bleeding during pregnancy and its correction will frequently prevent miscarriage, especially round the third month of

pregnancy. Most misplacements and malpositions of the uterus including prolapses will gradually right themselves if the pelvis is properly adjusted and the corrections maintained for a sufficient time. The last named condition is generally associated with Inferior-lateral lesions of both innominates which have been present for a long time. Old standing pelvic lesions also appear to be a predisposing cause in uterine tumours and growths of all kinds, and they are often a factor in causing sterility both in the male and in the female. It is also highly important that all women who are about to be delivered should have their pelvic bones properly in position as this helps to ensure normal labour and delivery and to prevent lacerations, uterine inertia and after complications.

An Inferior-lateral left innominate is the lesion especially associated with circulatory disturbances of all kinds including abnormal heart function and even abnormal blood pressure. In such cases careful attention should also be paid to the region of the third to fifth dorsal and the associated ribs, but lesions in this area are usually produced, aggravated or maintained by an Inferior-lateral left innominate. Varicose veins and leg ulcers are generally produced or aggravated by Inferior-lateral lesions, especially on the left side.

In a general way it has been observed that Superior-medial innominates produce severe sensory symptoms, while Inferior-lateral innominates have more effect on the viscera. This is by no means an absolute rule, but in cases of severe pain in the back or severe lumbago or sciatica it is always wise to look for a Superior-medial lesion at least on one side.

The above list does not in any way exhaust the symptoms which may be produced by innominate lesions. Such lesions produce irritations of the nervous system, especially on the side of the lesion, and they cause stresses and curvatures in all parts of the spine which will produce different symptoms according to the special tendencies, idiosyncracies or structural weaknesses of the individual patient. Thus, in cases of asthma it is always important to see that the pelvis is properly adjusted, for although asthma is generally associated with bad lesions in the upper dorsal region, such lesions are nearly always irritated, maintained and rendered more active by some misplacement in the pelvic

region. Similarly, an innominate lesion, especially on the left, may be an important factor in the production of epileptic fits. The author has personal experience of one very bad case of epilepsy which was cured almost entirely by a rigorous course of natural treatment, but in which the seizures are apt to recur whenever the left innominate becomes displaced, thus reawakening the old irritation of the epileptic centre on the left side of the brain. A persistent cough can also sometime be relieved by adjustment of the innominates, especially if attention is given at the same time to the neck and clavicles. Instances of this kind could be multiplied indefinitely, but the point to be remembered is that innominate lesions, even when very slight, produce a definite irritation of the whole nervous system and upset the mechanics of the whole bony framework of the body, thus producing a whole variety of symptoms in all parts of the body and aggravating all sorts of conditions which are primarily due to other causes. The wise osteopath will make it a rule never to allow any patient to get off his table until he has made sure that the innominates are perfectly adjusted.

The symptoms produced by Anterior and Posterior misplacements of the ilia are somewhat less clearly defined than those produced by Inferior-lateral and Superior-medial innominates. The most interesting fact about them is that they undoubtedly play a very large part in the causation of inguinal hernia. When hernia occurs in young children it can generally be relieved by a proper adjustment of both the innominates and the ilia, but in the case of adults, though some success has been achieved, the results have not been so encouraging up to the present. It is reasonable to suppose that lesions of the lower dorsal and lumbar spine also play an important part in the causation of hernia, since the innervation of the inguinal region and the inguinal canal appears to be derived from the upper portion of the lumbar plexus. Anterior and Posterior misplacements of the Ilia will also produce feelings of pain, tenderness or discomfort in the pelvic region, and may aggravate any of the symptoms produced by ordinary innominte lesions, in addition to making corrections of such lesions more difficult to maintain.

A Tilted Sacrum, which is very often accompanied by a lesion of the coccyx, will often produce rectal trouble, such as spasm of the rectum, and may also play a part in the causation of haemorrhoids.

V MAINTENANCE OF CORRECTIONS

The maintenance of pelvic corrections is often a problem which presents great difficulties. When the lesions are of recent origin and the patient is a person of good physique, with tissues in good tone, a single correction will often suffice to bring about a permanent cure. In other cases, however, it is possible to go on adjusting the pelvic bones for weeks, or even months, without their becoming really stable. Fundamentally the problem to be solved is one of nutrition and body tone. The sacro-iliac joints seem to be specially prone to give trouble. According to the view of some, this is due to the human body being imperfectly adapted to the erect posture, but, however this may be, it is certain that any shocks or violence to which the body is subjected will produce trouble in the sacro-iliac joints much more readily than in other parts of the bony framework of the body. These joints seem, indeed, to act in some degree as shock absorbers whenever the body is subjected to violence or strain, and, as they are gliding joints of a somewhat peculiar kind without much muscle support, they depend more than most other joints for their strength on the tone and elasticity of the supporting ligaments. Among most 'civilised' people the general body tone is so poor as the result of wrong feeding, suppressed disease, unhealthy living habits and poisoning with drugs and vaccines, often going back for some generations, that the body framework is no longer able to stand the strains which are normally put upon it. It is quite common to find new born babies with pelvic and other misplacements or lesions, even in cases in which the birth has been quite normal, which goes to show that many children are born with a definite weakness in the supporting tissues of the body. It often takes much time and patience as well as vigorous all-round treatment to overcome such weakness, especially in persons who have been chronically sick for some time and who are no longer young.

There are certain measures which can be taken to improve the tone of the tissues and so to encourage the maintenance of pelvic corrections. It is probable that other methods can be and will be devised as the nature of the problem becomes better understood. There is very little doubt that systems of exercise are already in existence which could be used or modified with this special end in view. We shall, however, confine ourselves here to the consideration of some of the simpler aids

to stabilisation of pelvic corrections. *

As has already been suggested above it is of the highest importance to get the whole spinal column loosened up as much as possible, and in particular to do work aimed at the reduction of such curvatures as are present. It is also important to be sure that the large muscles of the pelvic region such as the glutaei, adductors, hamstrings, psoas, quadricips femoris, quadrati lumborum, etc, are in a good functional state and well balanced, so that the pelvic girdle is not being subjected to abnormal strains or tensions. While violent exercise and athletics are often inclined to upset the pelvis until it becomes fairly strong and stable, swimming and walking, particularly in hilly country, seem to be a help. Careful dieting to aid in the elimination of toxins and to promote the building of sound tissue is of great importance. The diet should be rich in vitamins and minerals which help to give strength and tone to the supporting tissues of the body. Various forms of hydrotherapy may also be very helpful, both in promoting the elimination of toxins and in improving circulation to the pelvic region. In this connection the cold sitz bath is particularly valuable. The patient should sit in a tub of cold water deep enough to cover the buttocks, genitalia and lower abdomen for three minutes every evening before getting into bed. It is also important that the patient should avoid sitting in stiff, twisted and unnatural positions or becoming unduly fatigued. Anything which unduly irritates the pelvic nerves, such as excessive sexual activity, is to be avoided.

*There can be little doubt that exercises such is those which are advocated by F. A. Hornibrook in his famous classic *The Culture of the Abdomen* (now out of print and difficult to obtain) can do much to improve the strength and stability of the whole abdominal and pelvic region.

SOME THOUGHTS ON THE PROBLEM OF IMMUNITY

I believe that it is time for us who live and carry on our work in the osteopathic and naturopathic tradition to do some serious thinking on the whole subject of vaccination and immunisation. We are traditionally opposed to these things and we are aware that in being so opposed we are in conflict with current scientific and medical opinion, with powerful vested interests, with governments and even with the law. I believe that fundamentally we are right in looking with suspicion on all, or most, of these procedures, but if we are to convince others that we are right, it will be necessary for us to state our case more convincingly and more scientifically than we do at present and to indicate better ways of doing what orthodox vaccination and immunisation is doing or claims to be doing. This will lead us into some very deep water, but even if it is only for our own satisfaction I think we should be seeking for answers to a number of questions.

The first question to be considered in any given case is: what exactly is the substance, which is being administered? This is not a question which is easy to answer, as the preparation of vaccines and sera has become highly technical, the immunity which it is sought to produce is sometimes of the active and sometimes of the passive variety, and in some cases the ingredients are supposed to be living and in other cases dead. There are also differences in the mode of preparation and the mode of administration. Thus, while animal tissues or animal sera are generally used, it is not always in the same way; some preparations are applied to the skin, as in the original small pox vaccination, some are injected in one way or another and some are designed to be taken orally. In the classical case of small pox vaccination there is reason to think that the nature of the substance has changed completely since the time of Jenner, and that it is now far removed from the "cow pox" which he regarded as a protection against small pox. However, in connection with all these substances certain objections can be raised.

One objection is that in a general way all forms of mass medication are dangerous because no two people react in the same way to the same thing and what may be harmless to one person may be dangerous or inappropriate to another. Another objection is that we do not really

know what the ultimate effects are on the tissues and fluids of the body of putting into it substances derived from animal tissues, especially diseased animal tissues. It may very well be that the ultimate effects are very harmful and indeed it is almost impossible to believe that some of them are not when we consider how they are prepared. Moreover, putting things into the body by injection, especially if it is done directly into the blood stream, is very far from being a natural procedure, and it is by no means certain that it does not sometimes do harm and have effects which are not realised, especially on the cardio-vascular system.

The second question is: are these preparations really effective for the purpose, which they are supposed to fulfill? This, too, is not an easy question to answer in any given case. There are a great many different opinions and a good deal of evidence which appears to be conflicting, and a lot of the statistics and the interpretation which is given to them are open to suspicion. For instance, anti-vaccinists have pointed out that, in the case of small pox, it is not the countries with complete vaccination so much as the countries with good hygiene and sanitation, which have the lowest incidence of the disease. Also although the incidence and severity of some diseases for which there is an immunising treatment have apparently declined, the same may also be said of other diseases for which no such treatment exists. The views of persons who have lived and worked, either as doctors or as administrators, in primitive overcrowded and undeveloped parts of the world and have been brought face to face with the most terrible and destructive epidemics, are by no means in agreement as to the efficacy of the immunising or curative vaccines which are in common use. Some of them seem to have become anti-vaccinists as a result of their experience while others declare that they could not possibly have checked, prevented or controlled serious epidemics without the appropriate vaccinations and serums treatments. To me it seems that the efficacy and desirability of a great many of these treatments is quite unproven, but that it is difficult to deny that some of them are to an extent effective in preventing or controlling or curing some conditions, although they may be doing so at a certain cost and may be less good and less effective than other methods which might be used, as well as having bad after effects. One reason, among others, which I have for so feeling is that one can hardly escape from the conclusion that similar forms of treatment applied to animals do have very definite effects.

Experienced sheep breeders, for instance do lose fewer lambs if they give certain injections in a routine way, and masters of foxhounds now do not need to breed as many puppies as formerly because, if they inject against distemper, they do not lose so many in the rearing and training period. This does not, of course, necessarily mean that these injections may not have serious disadvantages in the long run or that other methods might not be used which would be equally effective and would not have any disadvantages, but that they are effective in preventing or controlling certain diseases and infections, it is difficult altogether to deny. For a number of reasons it is much more difficult to reach a definite conclusion about similar treatments used on human beings, but it would not be surprising if some of them do act in the same way.

The third question is: if, and in so far as, these treatments are effective, how do they operate? It has always appeared to me that a great deal of modern vaccine and serum treatment is based on a misunderstanding of the homoeopathic principle and a crude application of it. Is it not possible that when such treatments do work they are working in the homoeopathic way? The main difference, in some cases, between the orthodox vaccine and the homoeopathic nosode may merely be that it is given in gross quantities and by injection instead of per mouth. In some cases, moreover, when the dose is very attenuated even the quantity and potency of the dose may be unobjectionable from the homoeopathic point of view. It might, I believe, be argued with some justification that modern immunology has been moving in the homoeopathic direction without perhaps admitting or realising that it is doing so. If this is so, it would be a great advantage if the movement could become more rapid and more conscious.

On the other hand, if we look at the matter more from the old-fashioned naturopathic point of view, we see the possibility of these preparations acting suppressively. The naturopathic idea that acute disease can be treated suppressively and driven back into the system instead of being got rid of has, without doubt, got truth behind it and we have all seen cases of chronic disease or slow and incomplete convalescence following on the treatment of acute conditions by powerful drugs, serums and antibiotics. Also another point needs to be considered in connection with some of the prophylactic vaccine treatments in common use, namely, how far is their action really specific?

There is some evidence that if the body is asked to deal with any kind of toxin or infection it may be stimulated to produce inflammatory and other reactions which will render it immune, at least for a time, to other infections. In this connection it is interesting to note that Dr. Still, the founder of Osteopathy, who was opposed to vacciation on account of its dangers, believed that people could be protected from small pox during an epidemic by being blistered with cantharidin or Spanish fly, and he based his belief on actual experience in many small pox epidemics. If, in fact, it is possible to produce a general immunity reaction, even for a short time, by the use of some harmless substance or even by some sort of artificial fever, this opens up new possibilities in prophylaxis.

The fourth question is: what is the real nature of immunity, what causes epidemics and how should natural immunity be acquired and epidemics controlled and prevented? This, too, is a difficult question to which to give a complete and satisfactory answer. We would all like to feel that immunity is synonymous with good health and that if the body is in a good physical and chemical condition with all its glands and organs functioning as they should, it will be immune to infection or will, at least, react easily and favourably to any noxious thing which attacks it from the outside. That this is fundamentally the right way of looking at things, I do believe, and we can indeed see the principle at work in ourselves and in our patients. We know from experience that there is, at least, a relative immunity to many forms of acute disease among people whose bodies are in a good physical and chemical condition. We also know from experience that the so-called "healing crisis" is a real thing and that it often leads to greatly improved health if it is dealt with wisely.

One great disadvantage of the germ theory of disease as now generally accepted is that it concentrates attention on specific organisms and viruses and does not answer the question of how they arise or where they come from and why some people harbour them and some do not, and why some people appear to react favourably to them and some unfavourably. In the realm of treatment too, the parasitic germ theory leads to the idea that the important thing to do is to kill "germs" or neutralise them in some way. It is apt to be forgotten that the patient is much more important than the disease and that it is the vitality, condition and reactions of the patient, which bring about prevention or

cure in the long run. It is by no means certain that it would be a good thing, as orthodox immunologists appear to think, if a number of "shots" could be devised which would "protect" the population from all the common diseases. It is a sound maxim of treatment that it should aim at assisting body processes when they need to be assisted rather than to prevent them taking place or interfering with them. It is a good thing to produce "immunity" and "cure", if it can be done by means which so assist the body that it does not contract the particular disease or is able to overcome it rapidly, safely and completely if it does contract it, but it is very doubtful whether very many of the current immunising procedures and drug, serum and antibiotic treatments can be said to act in this way. There is a good deal of reason to think that if they do act for the specific purpose for which they are devised, namely to prevent some particular disease or destroy some particular organism or virus, they are doing it at a considerable cost to the patient and that the trouble may in fact be being swept under the carpet rather than got rid of, leaving the patient in a fundamentally less sound condition than he was before.

There can be very little doubt that acute infectious diseases have become, on the whole, very much less frequent and less destructive of life than they used to be, at least in our western communities, but it is also true that there is far too much subnormal health and an increasing incidence of malignant, organic, mental and nervous disease. I believe that the naturopaths are right, or at least partly right, in seeing a connection between these two tendencies. In so far as the decline in acute disease and its virulence is due to improved hygiene and sanitation, to better living habits and to better nursing and care, it is all to the good, but in so far as it is due to the suppression of acute reactions by drugs, serums and antibiotics, and sometimes by surgery, it is to be deplored.

Another unfortunate result of the present preoccupation with bacteria and viruses is that it produces an attitude of mind both in the population and in the medical and nursing professions which may be described as one of diminished personal responsibility. If people are ill they are increasingly unwilling to put any of the blame on themselves or their habits of life but prefer to attribute their troubles to some germ which has attacked them without reason; doctors and nurses on their

part tend to rely more and more on vaccines, serums and drugs for the prevention and cure of acute diseases and, if such are not available or do not appear effective, they are virtually powerless. The most striking example of this is in the case of animals. It is apparently quite inconceivable to the veterinary profession or the Ministry of Agriculture that there could be any treatment for foot and mouth disease except a vaccine. As no vaccine, which they consider satisfactory, is available they cheerfully insist on slaughtering thousands of valuable animals. This makes it practically impossible for anyone to discover rational methods of preventing, treating or controlling foot and mouth disease. *Note:* Sir Albert Howard, the pioneer of organic farming, claimed that his cattle showed almost complete immunity to foot and mouth disease although exposed to infection in a part of India where the disease was rife.

Techniques for assisting patients to get through the quite natural crises and difficulties of acute disease, based on a sound knowledge of anatomy, physiology and diet, are at a discount and tend actually to be forgotten. Most of us have had some experience of treating acute disease by such methods as osteopathy, hydrotherapy, homoeopathy and the like and we know that it can be done, though one can have some very anxious moments if one is not in the habit of doing it often enough to acquire a high degree of skill and confidence.

It must be remembered that the early reputation of many of the unorthodox schools was built up on the successful treatment of acute diseases and epidemics, and this leads one sometimes to wonder whether the fear which still attaches to some of them is really justified. I make this suggestion in all humility because I cannot back it with personal experience of any great account and it is well known that epidemics destroying a large percentage of the population can, and sometimes still do, sweep over whole areas in such places as India, China and Africa. Yet, I believe we are entitled to ask whether the high mortality in such cases is really necessary. Certainly it seems possible that when dangerous epidemics occur, especially among primitive and poverty-stricken people, the high mortality may be due to ignorance, neglect or malnutrition, as well as to the panic which is engendered; for we all know that if a sick person is very frightened and hopeless and believes he is going to die he is very much more likely to

do so. It may even be that immunisation campaigns may sometimes achieve a certain success less from what they actually do than from the confidence which they create in the minds of all concerned. Is it not therefore possible that if we understood a little better how to marshal and direct the vitality, and the physical, mental and spiritual forces of patients in dangerous acute crises, they would come through quite safely? For the alarming symptoms and general breakdown of vital functions which tend to occur do really represent the attempt of the patient's vitality to fight its way through and bring about cure, and if we understand what the body is trying to do we ought to have skill enough to help it in ways which may be no less effective for being very simple.

I have stated these ideas and this point of view at some length because I believe them to be the basis on which the naturopathic theory of immunity is built up. According to this theory there is only one kind of immunity which is worth having and that is natural immunity; and natural immunity is really synonymous with good health as opposed to a mere absence of obvious disease. Scientifically this view can be defended by accepting the ideas of Béchamp rather than those of Pasteur. Pathogenic organisms and viruses are not regarded as things with an independent existence in their own right, but rather as derivatives or modifications of the living bioplasm of human or animal tissues or of the organisms which are normally present in the intestinal tract. Organisms and viruses are fundamentally not so much the cause of disease as its result or accompaniment. Their action, at least in most cases, may be regarded as being constructive and beneficial, or potentially so. They cannot live in a really healthy body and if the soil and food which causes them to thrive is eliminated from the body they become harmless, and when they play a part in an acute and feverish reaction they are actually assisting to break up and eliminate deep seated toxic and pathological conditions. Practically all disease, from the common cold to cancer, is a kind of virus phenomenon because it is based on a degeneration or modification of the body tissues. All life is a species of fermentation and health is a good and harmonious fermentation while disease is a fermentation, which has gone awry.

This theory of immunity is attractive to me and I have always believed it to be fundamentally true, but I think it is only right to give

consideration to some ideas and facts which would at least appear to lead us in a different direction and which are hard to reconcile with it. It would seem indeed that there is a mystery about some most destructive epidemics and that it is hard to find any rational explanation for them or to see how they fit into any theory, either orthodox or unorthodox. The kind of phenomenon of which I am speaking would appear not to be confined to human beings but also to manifest itself in connection with plants and animals. For instance, a good deal of practical research and experimentation has taken place among organic farmers and by such organisations as the Soil Association which seems to show that crops grown in a sound way in really healthy soil are relatively free from disease, as also are the animals and humans fed on such crops. Yet I live in a country where the memory of the great potato famine of the 1840 decade is still very much alive, as it was instrumental in about halving the population in a few years and changing profoundly the history and economy of the country. The records of this occurrence are very worthy of consideration and study. It may truthfully be said that the sudden and spectacular failure of the potato crop could partly be accounted for by the fact that a dangerous form of subsistence monoculture on tiny plots of impoverished land had become established in some parts of the country, but the interesting thing is that the destruction seems to have been almost as great on well cultivated large farms where the most excellent husbandry was practised, at a time, moreover, when artificial manuring of the modern chemical kind was quite unknown. It can of course be said that the potato famine was due to a blight of a parasitic type and not to bacterial or virus infection, but I believe that the principle involved is really the same.*

In the case of a well-known animal we have recently had an example of something very similar. Rabbits have been virtually wiped out over

* It must be remembered that many plants and animals which are domesticated or raised on farms or in gardens have been introduced from other parts of the world and nearly all have been elaborated and changed in various ways by selective breeding designed to increase their size or develop some special characteristic. These things, as well as the methods of husbandry employed, must undoubtedly have a bearing on the physiology and the immunity of the plants and animals involved. With regard to the care and treatment of animals and the building up of their immunity a number of writers and investigators have reported very satisfactory results from dietary care, including the use of herbs, and from homeopathic treatment.

large areas by myxomatosis and they do not appear yet to have developed any very noticeable immunity to it. As far as I know this disease originated in South America where it was endemic among a certain species of rabbit in certain localities but was rarely, if ever, fatal. Subsequently it was artificially and deliberately introduced into Australia and later into Europe with the most fatal results to the rabbits of those continents, which were of a somewhat different kind. It appears that the virulence of the disease may also have been increased by the artificial cultivation of the virus. This seems to be an occurrence, which is well worthy of being thought about, and studied. The rabbit is a wild animal, which might be regarded as being reasonably healthy in a natural way, though it must be remembered that it had been introduced into Australia by settlers where it had multiplied out of all reason so that it was overcrowded on the ground to an extent which was no doubt unnatural, while in Europe too the rabbit population had become very excessive owing to man having upset the balance of nature by the destruction of animals which naturally prey upon the rabbit. It is also interesting to note that myxomatosis is one of those diseases in which the virus or poison is introduced into the victim by the bite of an insect or parasite. This type of disease would appear to be particularly virulent and destructive as is evidenced in the case of humans by such diseases as bubonic plague and typhus. It seems very possible that when things of a noxious kind find their way direct into the tissues and the blood stream and are not acted upon by the secretions of the respiratory and intestinal tracts, the defensive mechanisms of the body are taken at a disadvantage and may be overwhelmed.

Caution should perhaps be exercised in arguing from the diseases of plants and animals to those of humans, because there are a number of factors making comparisons difficult and unreliable, but there are some human epidemics too which are not easy to understand and explain. It does appear that very serious epidemics do sometimes occur when primitive or isolated communities are first brought into contact with people coming in from outside and that such epidemics are particularly destructive of life. In some cases the populations, which suffer in this way, could be looked upon as being very healthy and could be expected to have a high degree of natural immunity. Various explanations have been advanced to account for this phenomenon but none of them seem to be entirely satisfactory. Moreover when such epidemics are brought

under some control or die down this is very generally attributed to some vaccination or similar treatment being applied on a mass scale. It is very doubtful whether this explanation is sound or sufficient. It is also true that a particular epidemic will sometimes sweep across whole areas and, under modern conditions, even over the whole world, and do great destruction and will then just work itself out or disappear quite suddenly without any very obvious explanation, and without any specific measures being used to combat it. A number of interesting questions are raised in the consideration of these phenomena. The first question is whether the fact that an epidemic is very violent is necessarily a bad sign. It has always been the naturopathic view that it requires high vitality to respond in a strong and decisive manner to infection or toxicity and that a weak response or no response at all does not necessarily imply good health or immunity. This idea seems to have been believed in, to some extent and in some cases, by the physicians of past generations, though it is not common today in orthodox circles. For instance, a spectacular rash used always to be considered a good sign in measles. We know too that it is not the alcoholic or the drug addict who reacts in a spectacular way to alcohol or morphine, but rather the much more healthy person who is not used to these things. It may therefore be that when fundamentally healthy populations react very violently to a sudden exposure to infection from outside it is understandable on this basis. When such an epidemic leads to a high mortality this may be due partly to unsatisfactory care and inadequate or unwise treatment and partly, perhaps, to fear and panic. In other cases when the health of primitive peoples becomes undermined in a more chronic way and certain kinds of infectious disease become endemic among them this would often appear to be due to a change for the worse in their eating and living habits.

Yet, when all this has been said, it does appear that infections and epidemics do sometimes arise which are of such virulence that they carry all before them for a time. It is as if they set up a sort of chain reaction in the body which breaks down all resistance and causes death before the natural reactions and protective mechanisms can operate. There is some evidence that this kind of thing happens more frequently when some new infection is introduced into a community from outside. There are some infections too, like poliomyelitis, which are of such virulence and so sudden in their onset, that they do irreparable injury

or cause death almost before there is time to take measures of any kind. Diseases, which attack the brain or the central nervous system, are particularly dangerous on account of the vulnerability of those highly specialised tissues. What is the best way to deal with such situations, can anything be done to prevent them from arising and what is the best way of treating the victims if thy do arise? Here we must, I believe, be careful to separate in our minds the idea of prevention and prophylaxis from the idea of treatment and cure.

First, therefore, we have to ask to what extent it is possible or desirable by some specific measure to protect individuals or populations from being attacked by some serious epidemic or infection. In considering this question we must, I think, begin by realising that our conception of what constitutes prophylaxis has become very restricted. The preoccupation of medical science with bacteria and viruses as the essential cause of acute diseases has led to great neglect of research into the much more important question of what causes such bacteria and viruses to appear and to acquire their virulence. It is quite clear that there must be causes for such diseases as small pox and diphtheria arising in the first place and for their being more common and more virulent at some times and in some places than in others. If the conditions, which give rise to them, could be got rid of it is reasonable to suppose that they would cease to exist or become so rare and mild as to be unimportant. There is, of course, an awareness that many diseases are associated in a general way with poor hygiene, poor nutrition and various kinds of bad living habits and conditions, but the knowledge which we have of the causes which lie at the back of most of the dangerous diseases is vague and fragmentary and is generally regarded as being of secondary importance as compared with the discovery or isolation of some organism or virus. It is highly probable that when we come to understand better what leads to the development of certain diseases and what makes some apparently healthy people susceptible to them and others immune, we shall become much less interested in organisms and specific vaccines elaborated from them. Yet, in the meanwhile, there is obviously an argument for using specific prophylactic measures if such measures can be devised and shown to be effective and harmless. It is not by any means easy in any given case to be sure either that a certain protective procedure is effective or that it is harmless and not merely suppressive or alterative

rather than truly curative or eliminative of the underlying diathesis or disease condition. For if we reject the purely parasitic explanation of the common infectious diseases we are surely bound to admit that people who contract such a disease must have in them a diathesis or a soil favourable to its development. Moreover, if we accept, in any way, the naturopathic view that the disease itself breaks up this diathesis and substitutes for it a condition of immunity and improved health, the only prophylactic measures which are justified are those which change conditions in the body in such a way that the diathesis disappears and natural health and immunity is established or, to put it another way, which bring a condition of susceptibility to an end by lysis or gradual change rather than by a crisis which may be severe and dangerous.

I believe that there is a good deal of evidence that much of modern treatment, including most of the prophylactic vaccines and antitoxins, are suppressive in tendency and also that when we become too good at killing off or aborting the action of the commoner kinds of organism, we produce a state of affairs in which new bacterial forms and viruses are produced which are immune to the drugs, serums and antibiotics on which we have come to rely, besides encouraging the establishment in the body of chronic and destructive conditions. I would mention in this connection that I know thoughtful and well-informed people who believe that certain acute diseases of the central nervous system, including anterior polio-myelitis, were virtually unknown about a hundred years ago and have in effect been created by ourselves. When we consider the history of vaccination and the literature on the subject of post-vaccinal encephalitis, this idea seems by no means impossible of belief. Unless it should prove to be possible, as Dr. Still thought, to produce a general kind of immunity to a wide range of infections or epidemics by the use of cantharadin or some other simple method or substance, it would seem that homoeopathy is the most hopeful solution of the problem of creating specific immunity in a harmless way to diseases or epidemics which show signs of becoming dangerous. Homoeopaths have always claimed that it is possible to do this but, whether from apathy or lack of faith or because of a shortage of funds or of opposition from orthodox and governmental sources, they do not seem to have succeeded in establishing their claim on the basis of statistics or in the eyes of the world.

When we come to consider the question of treatment of dangerous acute diseases I believe that the same principles apply although the application of methods such as homoeopathy, osteopathy and hydrotherapy to acute disease makes great demands on the time, skill, devotion and courage of nurses and physicians. Great claims are made for various treatments with drugs, serums and antibiotics in conditions, which used to be considered highly dangerous and these claims cannot be ignored. Yet I do not believe that it has ever been proved that even better results would not be obtained by the intelligent and fearless application of methods based on physiological principles and designed to stimulate and assist the vitality and the natural reactions of the body. Here again homoeopathy should be able to supply the specificity appropriate to the particular condition while other methods, such as osteopathy and hydrotherapy, would bring about favourable reactions of a more general kind. It is impossible to me not to belive that in this way results would be obtained superior to any which are obtained at present. The only thing which I would add is that I believe that there is a future, on the basis of a profound knowledge of blood chemistry rather than of bacteriology, for the administration in great emergencies of substances which are of the nature of antidotes or catalysts by which great toxicity or imbalance of the blood can be quickly overcome. *

I would like to conclude by trying to suggest something like a plan of campaign which might help us to understand things better ourselves and might even encourage a new approach to the problem of immunity by the public, the medical profession and the powers that be. It would, first of all, be natural for us to wish to support organisations dedicated to the cause of anti-vaccination. One cannot but admire the courage, hard work and self-sacrifice of such persons as the late Miss Loat who did so much to expose false statistics and false claims and to show up many scandals. Yet it is difficult not to feel that the anti-vaccination movement is far less effective and influential than it should be. I would suggest that there may be two main reasons for this. First, it would appear that the movement is far too negative. It is not really enough in these days to say that you believe a thing to be bad if you do not say very clearly and in scientific terms why it is bad and do not suggest

* I believe that there is quite a school of thought, particularly on the continent of Europe, which considers that the study of chemistry rather than of bacteriology will provide the solution of many immunological problems.

better ways of attempting to achieve the same ends. It is not now very easy to find scientists who will openly express unorthodox views on medical matters or to get money and support for research on unorthodox lines, but it is clear that the questions which we have been considering do suggest many fields of research. Not the least important of these would be a determined attempt to establish whether or not it is possible to produce genuine immunity by homoeopathic means. Secondly, I believe that the anti-vaccination movement can be criticised because it often gives the impression that it is really concerned with vivisection rather than with vaccination. Though the anti-vivisection cause is one which arouses sympathy and attracts a lot of financial support, it is capable of confusing the issue in connection with the vaccination question which should, I believe, be considered on its own merits. For the rest there is very little we can do except to study and observe and take every possible opportunity of putting into practice the methods of treatment in which we believe, while avoiding and discouraging as far as possible treatments which appear to be suppressing disease or increasing toxicity in any way.

DIAGNOSIS AND TREATMENT OF CLAVICULAR LESIONS

Upward and downward movements or twists of the clavicle are very common and may cause quite serious symptoms. Among the conditions which are caused or aggravated by such lesions are: thyroid trouble, neuritis and neuralgia of the shoulder, arm and forearm, huskiness of the voice and persistent cough, pain up the side of the neck, stiffness and restriction of movement in the shoulder. Clavicular lesions may also be a maintaining factor in troubles of the elbow and wrist as well as making it more difficult to remove lesions of the upper dorsals and upper ribs.

The diagnosis of clavicular lesions may be done in the following manner. The patient should lie on the back or sit up with the shoulders as level and relaxed as possible. A pencil or other small object with a straight edge is then laid across the base of the neck just above the sternal ends of the two clavicles. By looking and feeling with the finger it is possible to discover whether the sternal ends of the two clavicles are level or whether one is higher than the other. When this has been done it is still necessary to decide which of the clavicles is in lesion. Moreover, it is possible for both clavicles to be moved in the same manner and so to be approximately level. It is not usually difficult, however, to determine whether a lesion is present. When a clavicle is in lesion there is always more or less tenderness and spasm of the sterno-mastoid muscle which results in a feeling of tightness when the finger or thumb is drawn in a lateral direction across the sternal end of the muscle; there will also be a feeling of tension at the other end of the muscle in the upper cervical region. Another common symptom is marked tenderness on continued pressure on the sternal end of the clavicle.

If the clavicle is raised, it may be corrected in the following manner. Make the patient sit on a stool or treatment table, at such a level that he is neither too high nor too low for the efficient performance of the technique. Make him fold his arms one over the other so that each hand reaches round to the shoulder on the opposite side. The arm belonging to the side to be corrected should be on top of the other. Then stand behind and above the patient and clasp your two hands together by

interlacing the fingers, at the same time reaching over and placing the patient's elbow in the cup thus formed by the palms your hands. A small pillow or pad should be placed between your chest and the patient's back and shoulder. A thrust should then be made by pulling sharply upwards and backwards on the elbow against the resistance of your chest, while at the same time exerting an inward and downward pressure with the fleshy part of the forearm on the acromion end of the clavicle. The effect of this movement is to hold the clavicle down while the scapula is forced upwards in such a way that the twist of the clavicle is corrected.

If the clavicle is depressed, it may be corrected in the following manner. Fold the arms across the patient's chest in such a way that one elbow is crossed over the other, with the arm of the side which requires to be corrected on top of the other. Stand behind and above the patient and take his right elbow in your left hand and his left elbow in your right hand. Place a small pillow between your chest and the patient's back. Then pull on the patient's two elbows until they are as tightly pulled over one another as they will go. When this point has been reached hold them firmly and make a sharp additional pull or thrust on the elbow of the side which requires to be corrected. This has the effect of exerting an upward pressure on the depressed clavicle and so rotating it back into its proper position.

When both clavicles have been properly corrected, their sternal ends should appear exactly level, though there is occasionally a slight irregularity in cases of very old standing or if there has been a fracture of one of the clavicles at some previous time in the life of the patient.

FASHIONS AND FUNDAMENTALS

I have called my article "Fashions and Fundamentals" because I feel that we in the osteopathic profession are always in danger of losing our way both individually and as a profession when we do not separate these two things in our minds. We are, of course, a profession, which believes that in treating the sick it is very important to work on them with our hands and we have developed techniques for doing this. I am very sure that this is a sound belief and a sound method of proceeding in practice, for I do not believe that it is generally easy to do people much good unless one is prepared to take off one's coat and work on them; which is, perhaps, why so much conventional doctoring leaves much to be desired. However, the techniques, which we use, are very much a matter of individual taste and expertise and a matter of fashion; they are not, I would submit, really fundamental. The fundamental thing in Osteopathy is its principle or basic law which has been stated in many different ways but which amounts to the fact that the functioning of the body and its health depend on, or at least are conditioned by its structural, mechanical and postural state. This we believe to be a basic law of primary importance which can be demonstrated and which must be recognised as one at least of the foundations on which a Science of Healing or Medicine must be built.

If we keep this basic principle in mind I believe that we shall get on well, both as individuals and as a profession. We were taught at school that the essence of Science is that we live in a universe which is governed and proceeds according to law. The essence of being "scientific" in any particular department of knowledge or endeavour is that we seek to discover the laws which govern it, test them out by experiment and then develop techniques for using them or applying them for our own purposes. This has been tersely expressed by saying that we learn to rule Nature by first learning to obey her. It follows that there must be basic laws on which health depends and that it is only by the discovery, enunciation and application of these laws that a true Science of Medicine or Health can be built up. We are right in contending that the osteopathic principle enunciated above is one of these basic laws and is, perhaps, the most important of them all. When we grasp this idea we are no longer continually faced with the problem

of deciding whether a given disease or a given case is amenable to osteopathic treatment or is an "osteopathic case". Since the osteopathic principle is a universal principle it is of universal application and every case can be considered in the light of the principle and treated in accordance with it even though osteopathic manipulative technique of a certain kind may not be the only method of treatment to be used and may even be contra-indicated at certain times and in certain circumstances. For there are other basic and fundamental laws by which health and disease are conditioned some of which have been grasped and discovered and some of which, perhaps. have not. These laws or principles should not be regarded as being antagonistic or contrary to each other, but rather as complementary. For instance, to take a simple example. There is undoubtedly a chemical norm as well as a structural and mechanical norm by which the health of the body is conditioned. Much disease, as we meet with it in practice may be regarded as a vicious circle in which both the structure and the chemistry of the body are concerned and should often be approached from both these points of view simultaneously if the best results are to be obtained, because the two interact upon each other. The chemistry of the body can, as we all know from experience, be greatly improved by putting it into a good structural and mechanical condition, but it is also true that if the chemical condition of the body and its tissues is bad it is hard or impossible to bring them into a satisfactory structural and mechanical state and to maintain them therein.

It follows that our treatment of the individual cases with which we are confronted must be worked out in the light of our anatomical and physiological findings and the general symptom picture rather than on the basis of the name which the particular disease is called in the medical text books. This is in accordance with the sound old doctrine that we must treat patients and not diseases and the old osteopathic idea that treatment should be based on anatomy and physiology rather than on pathology. The treatment moreover, must as a rule be general to the whole body as well as local to a part of it, since the anatomical and physiological workings of the body are unities. It should here be noted that very little seems to have been done in recent times, either in print or by word of mouth to give guide lines to students and practitioners as to how to approach different kinds of clinical problems and symptom complexes in a truly osteopathic way. Yet, there was a very

strong tradition in the British School of Oteopathy that this is a thing which needs to be done. Dr. Littlejohn in his lectures on Practice sought to discuss every kind of disease condition in the light of osteopathic principles and to indicate how to deal with it in an osteopathic way. The notes of his lectures which were taken down by the students are in existence but they are, as far as I know, little known and little studied today and are in some danger of being entirely forgotten, although a few fragments have been edited and printed in the Maidstone Year Book and possibly elsewhere. It is high time that they were systematically edited and printed and made available to the profession.

When once we have grasped the essential importance of the basic principle of Osteopathy, I believe that we should be very flexible in our approach to the whole subject of technique. Manual healing systems are very numerous and there are also systems of bodily reconstruction which do not involve manual manipulation in the usually accepted sense. I believe there is something to be learnt from all these different sources and to be incorporated into the individual methods of treatment, which we use and teach. I am convinced that manual treatment is a very individual thing and that it is an art rather than a science and that we learn to do it by experience and the development of an expertise rather than by any sort of rule of thumb.

It does appear, however, that there are two rather separate objectives, which we seek to obtain in the use of our hands in treatment. The first of these is the normalisation of the musculo-skeletal system of the body so that the structure, mechanics and posture of the body are rendered as perfect as possible. There are different ways of doing this or attempting to do it and different individuals and different schools have developed methods and theories, which differ somewhat from each other. We hear of osteopaths, chiropractors, naturopaths, neurotherapists and others who all have their particular approach and methods and go about things in different ways, and within these professions or groups developments and changes of fashion are going on all the time. One hopes that these developments and changes of fashion are on the whole the reflexion of more enlightenment, knowledge and skill, but one fears that sometimes they may not be; for change is not necessarily the same thing as progress. The real criteria of whether a particular

technique or method is good or bad is how well it contributes to the normalisation of structure, mechanics and posture which we seek to achieve and maintain. Experience has led me to feel that osteopathic technique in the period during which I have been familiar with it has been going through a phase or fashion which is not entirely happy in spite of the very high degree of skill which has been developed by many of its exponents. This, I believe, is because too much attention has been concentrated on individual spinal and other joints and on techniques for mobilising or "correcting" these. There is no doubt that there are times and occasions in which it is wise or essential to move a particular joint by means of leverages and a certain amount of force, but concentration on individual bony lesions or groups of lesions, and on joints and bones rather than soft tissues, and on parts of the body rather than the whole, can very readily lead to osteopaths becoming little more than high-brow bonesetters. This very much curtails the sphere of their operations and reduces the effectiveness and permanence of their work. The truth of the matter seems to be that structural, mechanical and postural faults and abnormalities are produced and maintained almost entirely by there being something wrong with muscles, great and small, and fasciae. Except in exceptional cases there is nothing to prevent a joint moving freely and coming to rest in its proper position provided that the muscles and other structures by which is operated, supported and controlled are in proper balance and working order. Morover, if these structures are put in proper balance and working order the joints will begin to move properly of themselves. Speaking for myself it was not until I came into contact with the ideas and techniques of Dr. Ida Rolf and her system of Structural Integration and Release that I came to realise that most so called "osteopathic lesions" are secondary phenomena which, however they were caused, are maintained by muscle imbalances and deteriorations and by hardening and contracture of fasciae. Moreover the individual lesion, important as it may be in its effects, is part of a pattern of postural strain and imbalance against which the body is constantly struggling to maintain itself erect and function satisfactorily. When all is as it should be the muscles and fasciae maintain the body in the erect position and posture very much as guy ropes hold up the pole of a tent; there is no strain and the heavy masses of the body such as the limbs, thorax, head and pelvis are in a proper relationship to the gravity line from the head to the ground. On the other hand when there is

imbalance in these supporting tissues, trouble begins and tends to be cumulative as more and more compensations and strains are initiated and confirmed. A technique which corrects the imbalances both between the front and the back of the body and between its two sides and restores the gravity line will automatically eliminate individual lesions and groups of lesions or at the very least render them ready and easy to be corrected and unlikely to recur. In addition, the elimination of the waste of vitality and energy occasioned by postural strain in the body, as a whole is something, which has to be seen and experienced to be realised.

The second objective of manual treatment is closely bound up with the first but is also to some extent distinct from it. We can by the use of our hands in one way or another seek to exercise an influence on and through the central nervous system by making use of the reflex connections of the system to produce effects which are beneficial both in the body as a whole and in particular organs or parts. This is the basis of much of the old osteopathic approach to the treatment of acute diseases and it is interesting to note that it forms a link between osteopathy and other forms of reflex therapy such as spondylotherapy and acupuncture.

JOCELYN CAMPBELL PATRICK PROBY

MA(Oxon) BLitt DO MRO'
3 March ~1900 - 30 December 1993

It has been a great privilege to have had close contact through all my professional life with such a wonderful man. All who knew him will miss his counsel, his great sense of fun and ready wit, the depth of his knowledge and constancy and the warmth and support of his friendship.

He was a remarkable man; a man of many parts. Educated at Eton and Magdalen College, Oxford, where he was an accomplished oarsman, he was well prepared for his engagement as a history don at Toronto University. When osteopathy called, he trained at Kirksville, Missouri and obtained his doctorate of osteopathy in the early thirties.

In practice, he assisted Daniel Mackinnon (who had graduated at the Lindlake College of Natural Therapeutics) and became a fine naturopath as well as an extremely able osteopath. He greatly assisted Mackinnon in the preparation of his book "The Conquest of Pain" and agreed wholeheartedly with his insistence on the importance of pelvic balance and integrity. Throughout his career, Jocelyn preached the importance of the pelvis, demonstrating the gentle and safe Mackinnon techniques for balancing the sacro-iliac joints, leaving with us understanding on this subject among his many essays and monographs.

Returning to Britain he assisted Kelman Macdonald in Edinburgh and then renewed his Anglo-Irish connections by moving to Arklow in Eire, setting up in practice in Arklow and Merrion Square, Dublin.

His ability and integrity drew people from many continents to seek his help but success did not alter the man. He was always the same.

Many students of the BSO, and others too, have had knowledge of his open generosity when he would invite them to his home in Eire and let them share in osteopathic and naturopathic understanding, in farming

and forestry on his own land, and in a sharing of his love of the country in which he lived.

In England, which he visited frequently, he worked quietly and with persistence to help to establish the GCRO especially in its early days. At the time of his death he was the last surviving subscriber to the Memorandum of Association under which the GCRO was set up in 1936. He worked to improve osteopathic education and at a difficult time was Vice Dean of the BSO in the early years of the second world war. In 1955-56 he was elected President of the OAGB. Also in 1955 he was a founder member of the Osteopathic Institute of Applied Technique in Maidstone, opening proceedings with an inaugural speech.

He was always looking to expand his understanding of the working of the human body and the means by which its health could be further improved. So it was that in 1962 he organised a course of instruction in "Structural Integration" under the personal tuition of its originator, Ida P Rolf. Following his successful completion of the course he was registered as a "Rolfer".

In later life he returned from Ireland to his family's estates near Peterborough where he continued to practise. It was not until he was 92 years of age that he finally gave up all osteopathic practice. Also due to failing eyesight he was forced to give up his editing and writing in which he had managed to express profound thoughts in such beautiful prose.

This brief summary merely scratches the surface. Because of his self-effacing nature, few realise just how much the osteopathic profession owes to the gentle stalwart. To those who, like myself, have had the chance to be close to him that closeness was a source of strength. We now send our support and love to his family as we honour Jocelyn.

John Meffan