Osteopathy and Woman

"WHO EVER HEARD OF A MAN WISHING HE WERE A WOMAN?"

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EVER since the world began, as the ancient records show, the woman has borne the greatest share of the physical suffering of the human race. The strain of motherhood and the accidents and misfortunes to which woman is liable at this time have injured or wrecked her health from time immemorial. On this account she was unable, in the prehistoric times, to take part in the exhausting hunts and fierce fights of the aborigines. In the days of the patriarchs she dwelt in the tents; she was not fit for a herdsman's duty in the fields, although she seems to have done much of the drawing of water for the flocks and the household. She worked hard indeed, but on account of her motherhood and the weakness it brought upon her, the men worked harder. So woman came to be called the "weaker sex" and the name clings to her still. Christianity has greatly elevated her social position; she is no longer a mere chattel or slave for barter and trade. The introduction of modern machinery has done away with much of the heavier work that she used to perform. Nowadays in civilized countries she no longer does the spinning and weaving; nor does she cultivate the fields, except among some of the peasants in Europe. Woman's industrial position is much better than it ever was before and better suited to her strength and capacities.

But how about her health? Unfortunately the advance of civilization has not done much to improve the physical condition of women and on account of their aches and pains, the multitude of ailments peculiar to them, they are still looked upon as the "weaker sex." Medical science has not done so much for women as it seems it might, if we consider the world's progress along other industrial and scientific lines. She still dies in child-birth as she did in the days of the patriarchs, and often suffers her life long from the re-

sults of childbirth, when she does not die. The fiction of about fifty years ago often represented "mother" as the sweet and patient invalid, confined to her couch for the greater part of the time, and it was not without reason. Old ladies, if they will, can tell tales of the physical condition of the mothers of a generation back that are enough to make one's flesh creep. Of course in all generations the stronger and better fitted women have escaped these worst ills; they have managed to bear children and yet retain an uninjured body; but the reverse case has been pitifully frequent.

The first great remedy for this state of things was found in modern surgery. With the introduction of anaesthetics and antiseptics, surgeons turned their attention to the rents and lacerations left in the woman's body by the birth of her child, and a means of improvement was found for her. She could be sewed up and kept whole, her organs in their proper place and infections avoided. Many a woman was rescued by surgery from lifelong agony and enabled to go about her domestic duties in half way comfort instead of lying on her couch for the rest of her life. Certainly surgery helped here. Also it was possible to remove many tumors and large growths that in older times destroyed life by their pressure on vital organs. Many lives have been prolonged or saved by this means, we must admit.

But apart from the cases really benefited by surgery, modern medicine has not been satisfactory to women. They have undergone months and even years of "treatment" with instruments, tampons and drugs of different sorts, and still found themselves ailing the same as before. Their case seemed hopeless indeed. Furthermore, surgery failed in these medical cases to prove satisfactory. When an organ failed to get well under such treatment, the doctors resorted to the knife and cut it out. But here surgery fails to come up to expectations very sadly. The cut nerve ends often fail to heal well. Sometimes they are caught in the scar tissue that always forms in a cut, and as scar tissue is hard and contracts a good deal after it forms, the nerve ends are kept in a constantly irritated condition and pain results, sometimes as severe as the patient suffered before the operation. Some-

times the cut end of the nerve forms a sort of tumor and great pain and suffering results from this. The contraction of scar tissue formed where organs have been removed or elevated and fastened into a new position often causes a drawing and pulling on organs and nerves which keeps the unfortunate woman constantly in severe distress.

Besides the direct and local pain thus caused, a woman who has undergone operation and the removal of the whole or part of the organs peculiar to her sex, often suffers intensely from "reflex" pains in various parts. That is, the whole nervous system is injured by the shock of the operation and the irritation of the cut and injured nerves, so that the patient feels pain in other nerve fibers, often quite remote from the ones actually involved in the cutting. She may suffer keenly the rest of her life from such reflexes, and their name is legion. She may not only be conscious of local pain about the pelvis and groin, but she also has severe pain in the head, breasts, back and lower limbs. She has ringing in her ears, distress and vomiting from the stomach; she has hot and cold flashes, disturbances of the heart, attacks of perspiration in some definite locality, and so on. She can hardly escape mental trouble, in bearing all this physical disturbance; she becomes peevish and fretful, and even shows an entire change of disposition, although often the fortitude and self control of a suffering woman are marvelous, and her real pain is known only to herself.

TO relieve all this untold suffering is the greatest boon to humanity, and this has been the province of osteopathy. Women owe a debt of gratitude to Dr. Still which many have come to realize and acknowledge enthusiastically. Osteopathy begins at the beginning of things and takes care of the pregnant woman. Her anatomy is put in condition to stand the strain which she must undergo. She is kept in a normal condition until the birth of her child, and at the end her tissues are so relaxed and prepared for the birth that laceration is almost always avoided and is always reduced to the very minimum. The osteopath helps a woman through the strain of parturition, minimizing the pain and shortening the time of suffering. She is not left in agony until her case seems hopeless and then torn to pieces with instruments, as is only too frequently the case in medical practice.

Injuries and displacements which occur during the birth are immediately looked to by the osteopath and so the after suffering is avoided. Child-birth fever and milk leg are prevented by osteopathic methods, and what this means to a woman, let some one of them who is a partial cripple from atrophied muscles following an attack of milk leg, tell you. She will be able to make it plain. She has lain for weeks with her leg swollen to nearly twice its normal size and then has seen it waste away to a shrunken and only partially useful condition. Besides milk leg, a multitude of other after effects of child-birth are avoided by the osteopath, and the method of doing so is very interesting indeed.

Osteopathic practice depends upon a detailed and particular knowledge of anatomy, which the osteopath must bear in mind much more closely than the surgeon. Also the osteopath must be fully aware of the physiological functions of all the organs, and especially their nerve and blood supply, for he works directly on the nerve and blood supply to the parts concerned, in order to obtain his results. We can all understand the possibility of doing this, since the first principles of physiology have become so widely known. We all know that the blood is pumped through the whole body

by the heart, that it leaves the heart through one set of blood vessels, the arteries, which carry and distribute it so minutely to the tissues that a pin prick anywhere in the body will draw blood. Then it is gathered up by another set of vessels and returned to the heart, to be pumped through the lungs, where it obtains a fresh supply of oxygen. Returning to the heart again, it is once more pumped through the body to supply the tissues.

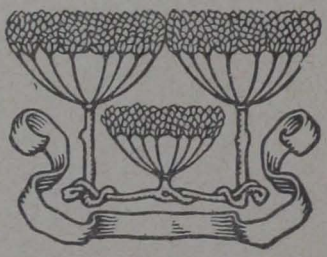
Now the arteries supplying the organs of generation start out from two different points. The arteries to the ovaries start from the main artery to the abdomen, the abdominal aorta, a little below the twelfth dorsal vertebra, and run downward into the pelvis to supply the ovaries, which lie at the sides of the basin formed by the pelvic bones, and a little below its brim. These arteries can be reached directly by deep work done on the abdomen and freed from pressure of other abdominal organs. The veins draining the ovaries of impure blood take a similar course, emptying into the large abdominal veins very near the point of origin of the ovarian arteries.

The large arteries to the uterus start out from branches of the arteries that run from the abdominal aorta, around the sides of the pelvis and then over the brim in front and so on down the legs. These arteries are deeper and more difficult to reach than the ovarian arteries, but they can sometimes be worked upon directly through the abdomen.

Even more important than the arteries are the nerves of the pelvic supply. Women are accused of being "nervous," of giving away to their nerves too much and not exercising enough self control. As a matter of fact the function of motherhood requires an enormous supply of nerve force, and mind and body are more closely connected in the woman than in the man. She is much more affected physically by her feelings than he, more liable to be made really sick by a burst of anger or attack of fear, and she should not be blamed for a state of things that is physiologically necessary. She should also be appreciated for the really great fortitude with which she usually bears the pains and anxieties she must suffer. She generally does it much better than a man would bear the same amount of torment.

The great nerve supply of the pelvic organs comes directly from the ganglia of the sympathetic system, but these ganglia receive fibers from the spinal cord which control their action and the spinal cord fibers pass out between the vertebrae at different points from about the middle of the back down to the end of the spine. Here the osteopath can reach the nerves directly and here, too, the trouble often occurs that causes the nerves to act in an abnormal manner.

If the vertebrae become a little twisted so that they do not fit together quite normally, either the bone itself, or some ligament attached to it, presses on a nerve fiber and irritates that nerve. An irritated nerve does not perform its duty properly and things go wrong at the other end where it is distributed to the organ whose function it controls. Some of these nerves regulate the size of blood vessels supplying the pelvic organs, and if their functions is disturbed, there may be a dilation of blood vessels and consequent congestion, or a contraction of blood vessels and resulting anemia of the part supplied.



HERE is the mechanical cause of ills untold and miseries without number that afflict the "weaker sex." A woman has lifted a heavy washtub, or moved the piano and other heavy furniture while sweeping,—and she must keep the home clean! She turns too far while her muscles are straining at the bones and some vertebra, or even one of the pelvic bones, slips so far that it cannot go back to normal position with the rest. Ligaments are strained and harden from the inflammation caused in them, a nerve becomes irritated, and the trouble begins in the organ supplied by the nerve.

In this way there originate all varieties of disorders of menstruation, painful, scanty or profuse. The leucorrhea that afflicts so many women results from a vitiated nerve and blood supply. A uterus with an abnormal blood supply becomes inflamed and swollen. It sinks out of place, pulling at its nerves and ligaments, and then begins the whole list of "reflex" pains, headache, backache, pain in the eyes, ringing in the ears, palpitation of the heart, etc. Motherhood cannot be a normal function with the organs in this unhealthy condition, and here lies the root of much of the agony at child-birth. The state of mind cannot be normal either,—"mother is cross," and is mother really to blame, if she is?. Who would like to be in mother's place? Who ever heard of a man wishing he were a woman? If the husband had to bear and bring forth every alternate child, how many would there be in the family? It has been said, if the woman began with the first child, there would be three, but if the man began with the first, there would never be more than two, and this is probably the truth.

Tumors also arise from an abnormal supply of blood. Tissues gorged with impure venous blood do not make the proper repairs, nervous control is interfered with or lost, and the abnormal growth begins. Its pressure and pulling may cause any combination of the "reflex" pains, and it frequently leads at last to hemorrhages which threaten life and require the tumor's immediate removal by the knife. An operation in such a case removes the tumor, it is true, but the

tumor is only the effect. The real cause of the trouble is in the slip or twist which originally upset nature's even working, and this is left in the body. The knife does not alter the position of the bones and so the real trouble goes on after the operation as before. Perhaps the growth returns, or new diseased conditions spring up.

Further, the impure blood gorged in pelvic organs, or the lack of a proper free flow of it, make it possible for bacteria to invade the tissues and set up ulceration or formation of pus. These wretched little enemies of life rarely get hold where tissues are normal. A free and active blood supply is the best germicide and is a competent defense against bacteria, but let the blood be stagnant, poor in quality or scant in quantity, and then the vitality is lowered and the bacteria are able to take hold. It is true they are nature's scavengers, who destroy dead and waste organic material and convert it to useful forms of inorganic matter. They only do their duty in attacking the wasting tissues of the body, but they add tremendously to the suffering of the individual and hasten death.

Now the work of the osteopath is plain. Drugs cannot reach the twisted bones and ligaments which are the primary cause of these various disorders. The knife cannot remove them, but the osteopath can adjust them to their normal position once more. The adjustment of the mal-position is the cure of the disease. Nature gradually builds up the tissues to a healthy condition again and the patient feels better and better as time goes by.

It is clear to anyone that if the blood supply to a pelvic organ should be cut off, that organ would atrophy and die. If pressure by ligature, or any other means, were applied to the uterine artery, of course the uterus would soon become diseased. It is not so clear to many how pressure on some more or less remote trunk of the nervous system can produce disease in the organ. We must remember, however, that all the life processes of the body, including the chemical changes in the tissues themselves, are controlled and directed in some way, by the nervous system. The processes of nutrition, by which the tissues absorb and

assimilate the food stuff brought to them in the blood stream, are controlled by nerves. Destroy the nerve to a muscle without in any way interfering with its blood vessels, and the muscle will waste away, contract and really die, although the heart sends it as much blood as it ever had. So the secretion of the glands is controlled by nervous impulse, as well as the size of the arteries supplying them. Irritate the secretory nerve and the substance secreted becomes abnormal in its composition and produces trouble in the body.

Let the osteopath remove the twist of bone or ligament which is pressing upon a nerve and the impulses which the nerve sends out become normal. Circulation, secretion and nutrition are again put under proper nerve control and in time the tissues of the organ become natural and act in a healthy manner once more. This rebuilding of the tissues requires some time. Nature does not make sudden changes in a living organism, but gradual ones. It is frequently the case that a patient feels much better and stronger some months after stopping osteopathic treatment than she did while the treatment was going on, and this is because the tissues have had time to grow healthy and to gather strength.

MEANTIME the osteopath can also take care of the infection, the ulceration or abscess. Medical men have no patent on antiseptics and germicides, but all schools use them alike. Your osteopath will employ such powders, lotions or other dressings as will best suit the case and destroy the microbes working there. He will also give directions for the necessary cleanliness and explain that excessive douching is a bad thing because it carries away the natural secretions and weakens the mucous membrane. Proper antiseptics is a thoroughly osteopathic precaution, as well as a help in restoring healthy conditions, and it will never be neglected by the properly educated practitioner.

The mind of the patient will follow the change in the bodily condition. A healthy body will give the best opportunity for a sane and healthy mind, and a steady, normal nervous system usually means a calm and controlled disposition. Is mother cross? Send her to the osteopath. How can she bake and sew, sweep and clean when her nervous system is strained by the pelvic disorder that follows these twists and strains to which she is so liable? How can she be peaceful, sweet and wise when suffering almost constant pain, or even the vague but very real distress which is described as being "so depressed and nervous somehow"? We often expect the most unreasonable things of mother, but wait until some of us are in the same place, and we will understand her better. Meantime be sure that she will obtain more benefit from a good, thorough anatomical adjustment than from any other one thing. Keep her body mechanically correct and the nervous and chemical process will obey the laws of nature, except under some extraordinary conditions of exposure, deprivation or overwork. The same is true of all of us, but most peculiarly true of her who is subject to the strain and accidents of bearing and rearing a family while carrying on the manifold duties of managing the house work.

It is not necessary that these twists or displacements of the bony framework should be large ones; that is, so gross as to be easily discovered by the un-

trained observer. It is only necessary that they be large enough to cause pressure or irritation of a nerve, and the nerves are everywhere. If you cannot stick a pin into the body without drawing blood, neither can you do so without piercing a nerve, as your feelings very plainly testify. There are no vacant spaces in the body, except to a slight extent in the lungs and the hollow organs of the digestive tract, so that there is no room for a joint to slip about without causing trouble. The vertebrae are fitted exactly together. The nerve trunks and blood vessels passing out and in between them have barely space to lie in, no more. There is no room in which they can be shoved aside. The space on every hand is completely filled in by the ligaments binding the bones together, the tendons attaching the muscles to the bones and connective tissue supporting the blood vessels, etc., not to mention the bones themselves.

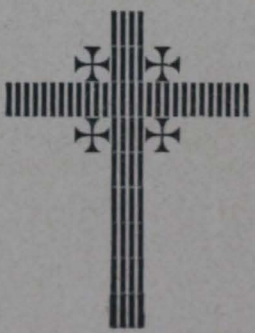
Therefore, if a joint be twisted a little out of place, the ligaments or tendons will be drawn a little out of place also, and if some of these structures press upon a nerve trunk, that nerve is irritated or hampered in its work. A small tack in the sole of a shoe will cause great soreness and pain, if it is walked on long enough, and in the same way a small pressure on a nerve will produce considerable results, if it be long continued. So it is necessary to find the small displacements and the slight hardenings of the ligamentous tissues which follow strains and twists. They sometimes produce more serious disease than a considerable curvature which can be readily seen, the results depending upon just how much pressure is brought to bear on the nerve.

A blood vessel is not so easily disturbed as a nerve, for the throbbing of an artery will wear away a bone and so make room for itself, while if a blood vessel is completely cut off, the blood will often run around through a neighboring branch and reach the same tissues. Serious trouble very often follows the cutting off of a blood vessel, but compensation takes place quite frequently; the circulatory system has great recuperative power.

It is different with the nerves. If a nerve cell is

once destroyed, it never grows again. If a nerve trunk is hampered or irritated it is usually impossible for the impulses to be sent about through any other channel; the organ supplied by that nerve must suffer. Hence the possibility of small lesions or twists producing great diseases if they happen to expend their full force on a nerve. Hence also the necessity and difficulty of a correct diagnosis.

A large curve in the spine, the actual dislocation of a joint or the breaking of a bone are things easily observed. Even the layman can tell that something is wrong in such cases. But when the displacement is limited to a little slip, producing inflammation and hardening in the deeper ligaments binding the parts of the joint together, then it is a different matter. The osteopath must depend on the sense of touch alone and must discover indications that lie sometimes far beneath the skin and surface muscles. He must feel the slight irregularity that exists where the joint surfaces of bones are not in normal contact and he must not be misled by any irregularities in the shape of the bones themselves. These latter often occur in the normal body and make no trouble whatever. They do not interest the osteopath except as curiosities of formation. He searches for the slips, even the little twists and displacements, and puts them right.



THIS is not a simple matter. It require all of a physician's skill and training and more. The osteopath must not only have the manual skill to detect the lesions which he adjusts, but he must thoroughly know the various diseases of the body, their symptoms and their course, and so be able to adapt his treatment to the case. Especially in the pelvic troubles of women is this minute and thorough training necessary, for the reflexes are so many and often so obscure, that their true origin in the pelvic organs may not be at all evident. Then, too, slips in the pelvic bones themselves, the iliacs and the sacrum, are difficult to find, as the joints are so deeply imbedded in heavy ligament sand strong muscles. The osteopath finds and corrects many a displacement here, when the medical man denies that it exists at all.

This diagnosis of lesion is no part of massage, nor is the correction of the displacement in any sense massage. The proper osteopath does not "rub" his patient, no matter what may be said about his treatment by the medical man or some who claim to give "osteopathic massage." There is no such thing as this latter. An osteopath may use massage to quicken the circulation temporarily, or give relief from pain, but his business is adjustment of mechanically disordered parts, and he does this by taking advantage of the leverages afforded by the limbs and different parts of the body, and by rotations and methods entirely unknown to the masseur. Do not be deceived by anyone with a system of massage or Swedish movements, who claim to be giving osteopathy. Adjustment of lesion is true osteopathy and nothing else will obtain the results of the osteopathic work. A woman who has once had a slipped pelvic bone put in place, or a vertebrae or rib adjusted by an osteopath, can-

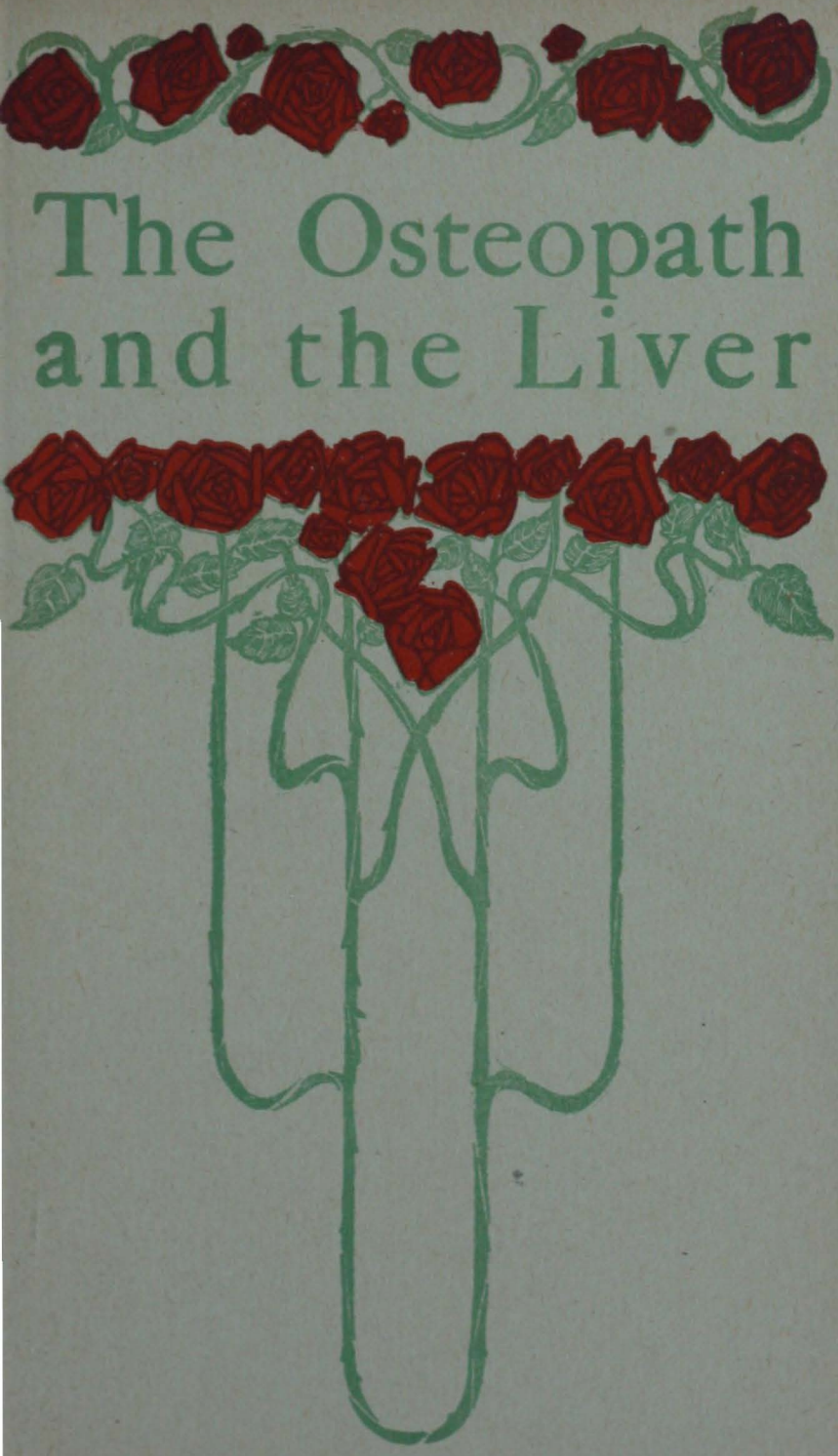
not be deceived again by any kind of rubbing. She knows the difference, both in method and results, for the adjustment is entirely different from the massage and the result is permanent.

This manual skill is not acquired without long training and close attention on the part of the osteopath. His fingers must learn to see for him, not only the superficial muscles, but the joints and ligaments lying deep below the surface. He must learn to detect the irregularities and hardnesses of the tissues through a good thick cushion of muscles, and this requires practice as well as instruction. It is no simple and easy matter to be picked up in a few months. The curiculum in a standard osteopathic college is extensive and complete, with special attention devoted to the diseases of women from the osteopathic standpoint. The osteopath does not slight this branch of his training, for it is in relieving the troubles of women that osteopathy has won many of its most signal triumphs. It has not only cured diseases that had never before been reached by medicine, doing away with very much of the suffering of child-birth and the after effects, but it has also done away with much of the disagreeableness of medical examination and treatment. Adjustment of twisted bones is made while the patient wears a loose gown, and her natural modesty is not shocked by the process. The women who have tried it, cling to osteopathy and will always do so.

Everywhere that osteopathy has gone the women can testify that to them tne system of adjustment has come as the greatest blessing afforded by healing science. It places woman in a physical condition to take advantage of her improved social and industrial position, and do her best work in the world. It does more than any other advance in medicine to make

her the happy mother of vigorous children and to give her strength equal to the demands made upon her by the more complicated intellectual and social life of our times. In helping the mother, osteopathy benefits the whole race and we must reckon its discovery among the great advances that heralded the dawn of the twentieth century.

The Osteopath and the Liver



The Osteopath and the Liver

THE human race is destined to endure many afflictions in this "vale of tears." Writers of all ages have bemoaned our miseries, the sadness of our lot, the hopelessness of our fate, and from our cradle days we have heard it said that "Man is born to trouble as the sparks fly upward." Man IS born to trouble, we none of us escape it; but the source of the melancholy in the brave old world is hardly to be found in difficulties we have to overcome. The pessimism and gloom that darken many lives have been laid with justice to torpid livers rather than to cruel fate, and the ancient wise men have understood that the source of much melancholy was within the man himself. When great Caesar said, "Let me have men about me that are fat, sleek-headed men, and such as sleep o' nights," he was calling for those of good digestion, practically those who had sound and active livers. Whoever knew a bilious man to smile? The cheerful comrade, the courageous, hearty fellow is he who has a good liver, depend upon it, and this with good reason.

In the domestic economy of the human organism the liver stands like a receiving station at the gateway. Very little of the material put into the digestive canal reaches the brain and muscles, which it must nourish, without passing through the liver. It is true, there is a little harmless smuggling; the fats which are eaten reach the blood stream through the lacteals and lymphatic circulation without going through the liver first, but nearly everything else passes the inspection of the liver before it does us any harm, or good. An impure blood stream means a sluggish brain and dismal mind, and this it is the duty of the liver to prevent. This faithful sentinel presides over the blood stream, sorting out and work-

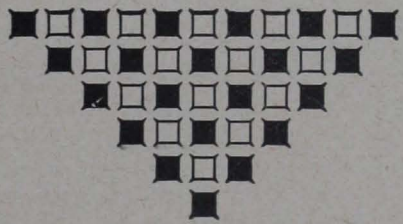
ing over the material that enters it, guarding life from poisons and harmful substances that may find their way into the food eaten. Injurious material is stored at first in the liver cells, then excreted from the body, while good substances are passed on into the general circulation. It is not too much to say that the liver is the most important as well as the largest gland in the body. Other organs may be injured, or even removed entirely, but a partial operation on the liver or gall bladder is nearly always fatal.

This organ takes up its work in the very beginning of life. In the embryo, it forms the first blood cells and opens into the first blood vessels that form in connection with the embryonic heart. Later on the foetal blood bringing oxygen and nutriment obtained from the material blood by near-contact therewith, must first circulate through the foetal liver before it even reaches the foetal heart. Of course, the liver grows faster than any other organ. At birth it is proportionately larger and better developed than any other part of the infant's body. At this time the blood vessels of the stomach and the whole intestine gather into veins that go to the liver, also the large vein draining the spleen joins with them, thus forming the portal vein which enters the liver to break up into small branches, dwindling to capillaries, that ramify through the entire substance of the liver. Thus the blood from the digestive canal, carrying the food materials, is subjected to the action of the liver cells before it is gathered again into the hepatic veins which discharge it into the general circulation moving to the heart.

These liver cells have much business with the blood stream, and upon their work the health of the whole body depends. Their best known labor is the secretion of the bile, and this work never ceases, day or night. The bile is not passed continuously into the intestine, it is true, but is stored in the gall bladder ready for use in quantity when it is called for. After meals the bile is wanted, and it flows through the duct into the intestine to mingle with the food. At the same time the rate of secretion increases and reaches its maximum in four to six hours after the meal is taken. During the night the secretion

dwindles to a minimum, but never stops altogether. This bile is most necessary to the process of digestion. It wets the membranes of the intestinal wall and lets the fats through more easily than they could otherwise go. It checks the action of the bacteria that work on the foodstuffs and so disinfects and prevents the formation of poisons in the processes that go on in digestion. It also lubricates the walls and so helps to pass the material onward more easily. Altogether it has an important part in making things go.

The liver also excretes in the bile material from wornout blood cells and substances which are not wanted any longer in the body. It throws back the injurious materials received and has much to do with rendering such substances harmless by working them over; also it prepares the waste of the cells of the body, the nitrogeneous matter, for excretion by other routes.



BESIDES all this, the liver has a most important function in preparing and storing a kind of animal starch, called glycogen. The muscles derive their energy largely from the consumption of this glycogen, and the liver gets it ready for their use, manufacturing it from the sugar and starch material brought to it in the portal blood. When the glycogen has been prepared, it is held in quantity in the liver cells and turned into the blood stream as the needs of the system require. An interesting example of this is seen in the frog, which hibernates through the cold weather without eating anything. Examine a frog's liver in the summer time and but little glycogen is found; he is using it up as fast as he makes it. Examine his liver again, while he is torpid in cold weather, and it will be found very rich in glycogen, which it has stored for use in the first active life of spring. This is only one instance of the many activities of this most important organ in the animal body.

In diseased conditions the work of the liver is more than doubled. Disordered life processes have thrown great quantities of poison from the different tissues into the blood stream, and the liver is now not only the vanguard of life's forces to prevent the entrance of poisons, but it becomes the rear-gard, too, charged with the business of throwing them out. In this matter the osteopath is the liver's most powerful allay, and he reinforces its work very promptly and efficaciously. His methods depend upon the anatomical connections of the liver, upon its physiological functions, and also upon its very complicated relations to other organs.

In the first place the osteopath can empty the gall bladder and ducts, at the same time working out the venous blood in the liver, by direct pressure and work upon the organ itself, as it lies under the springy lower ribs of the right side of the body. This is immediate and direct; there is no waiting for a drug to be absorbed into the circulation and by irritating or poisoning the liver cells force them to an extra exertion to empty the organ. The vitality of the system is not absorbed by the work of the osteopath as it is

in the effort to throw off drugs. Rather the vitality is relieved of a part of its burden and so has greater energy to devote to the other necessary work of repair, for it is a fact that no work is ever done without the expenditure of energy. If a man rolls a barrel up a hill he expends energy on the barrel. Then he is "tired," that is, he cannot spend the same energy twice over; he must wait for a new supply. So it is in all chemical processes in the inorganic world of matter. In making new chemical compounds, or even when a substance goes into solution, energy is used and the same energy cannot be used twice; it is transformed into some other kind of energy and goes into new relations with matter. The law is the same in the vital processes of the body. Energy is required for the various chemical and mechanical processes carried on in the organism, and energy, or vitality, that has been expended in throwing off a poison cannot be used to repair the injured tissues or turned into muscular activity.

This waste of energy is prevented by osteopathic treatment. When venous blood and bile are pressed out of the liver by the osteopath, new blood enters; the circulation is changed without the expenditure of nervous energy and the vitality is still there to make repairs on the tissues or to remove impure matter from the blood stream. The same is true of all the osteopath's work. The patient lies quiet and passive; the more relaxed he is, the better.. The osteopath works, but the patient's energy is all saved for use in his own internal economy, and, furthermore, the changes brought about are such that new energy is generated in the patient's system. He is stronger after the treatment than before. That is not the effect of drugs. In large doses they would kill the patient; in smaller doses they seem to relieve certain symptoms, but it is at the expense of the patient's strength.

The osteopath, however, is not confined to direct work on the liver itself, by any means. He can reach the diseased condition by many routes through the various connections of the gland. The size of the arteries supplying the liver with blood is controlled by vaso-motor nerves. These come from the solar plexus, a large ganglion of the sympathetic system situated

in front of the great abdominal artery about the point where the artery to the liver originates. Stimulation of this plexus contracts the blood vessels, lessening the flow of blood. On stopping the work on the solar plexus, a reaction sets in; the blood vessels dilate and a fresh supply of blood rushes through the liver. At the same time the nerves controlling secretion and nutrition are stimulated; fresh energy is generated and all goes better than before.

The vaso-motor fibres of the sympathetic system are governed in their action by the vaso-motor fibers coming from the spinal cord. These spinal fibers pass out from between the various vertebrae in the back, and here the osteopath can reach the centers from which they are distributed. He stimulates these centers and the blood vessels contract, the same as when working upon the solar plexus itself. And not only is the liver thus affected. If the vaso-motor nerves to the intestines are stimulated the little arteries supplying them become contracted, the supply of blood passing to the portal vein is thereby diminished, and the liver is thus rested to be refreshed later by a new supply.

THIS control of the circulation is most important in bilious fevers. A man finds himself very sick, with high temperature, rapid pulse, constipation, and bilious vomiting. He sends for the osteopath. The first thing the doctor does is to reduce the temperature of the patient, checking the loss of energy that is being used to produce the heat which is not wanted by the body. He stimulates the vaso-motor nerves, the blood vessels contract and the congested blood is driven out of the liver and intestines. Then he inhibits or lessens the action of the vaso-motor nerves to the blood vessels in the skin by working upon the general center in the medulla or uppermost part of the spinal cord. The blood vessels in the skin dilate, receiving the blood from the viscera. The skin becomes hot, the patient sweats and the fever is broken. Thus the osteopath aborts fevers from any cause, even infectious ones, and effects a rapid cure. But the work must be done by one who understands the system of the body circulation and the various nervous reflexes thoroughly besides knowing the symptoms and course of the disease. This is not massage, and massage will never produce the osteopath's results. Don't think it for one moment.

The splanchnic, or spinal nerves to the solar plexus, are not the only ones upon which the osteopath works to affect the liver. The vagus nerve, originating in the base of the brain (technically, in the medulla), proceeds down through the neck and sends fibers to the stomach, liver and intestines. This may seem strange, a nerve from the brain going to the liver, but it is easily understood when we remember that in the embryo the liver first appears as a little outgrowth or bud from the lining of the intestinal canal. This bud starts directly below the heart in the region which afterwards becomes the neck, and as the embryo grows the diaphragm with the liver, becoming more definitely formed all the time, move downward to the final place under the lower ribs. Naturally, the liver becomes connected with a nerve from the head and carries it down through the body,

the nerve growing longer as the body grows on to completion.

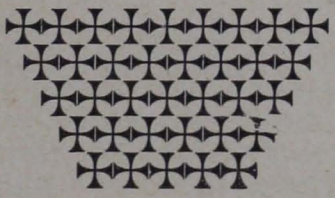
This vagus nerve supplies the gall bladder and duct in a peculiar manner; when it is stimulated it causes the gall bladder to contract and the sphincter muscle closing the mouth of the gall duct in the duodenum to relax. The result is that the bile is pressed out of the bladder at the same time that the mouth opens to let it out into the intestine. The osteopath can reach the vagus nerve directly in the neck just above the collar bone. He stimulates the nerve, increasing the force of its impulses and freeing it from any irritation which may result from twists or displacements of the bones of the neck.

This latter is the real business of the osteopath all through his practice—to straighten out and adjust slight twists or tilts of the bones and restore normal flexibility to the strained ligaments attached to them. It is not a singular thing that joints should become twisted a little out of their normal resting place, when we consider the reckless way in which we use the body from the cradle to the grave. No machine could stand such wear and tear without some slipping of the movable parts; we never would expect it. Yet we expect the body to go on working vigorously for eighty-odd years without needing any adjustment. We do not even stop at working the body, either. We jerk and strain it, jar and twist it to the limit in every conceivable way, and if we feel a lameness at any time we expect it to get well of itself pretty soon. Frequently it does. Frequently the lameness of which we are conscious passes off, but the mischief remains after the soreness has left the muscles so far as we can feel. One of the joints between the vertebrae or between a rib and the vertebrae has moved too far, straining the deep ligaments and starting an inflammation which hardens them. Then the nerves lying under and between the ligaments close to the bones are irritated and do not perform their duty properly.

Dr. Still was the first to realize that this took place. He studied the body mechanically, and following his practice the osteopath works these bones and ligaments, adjusting the displacements and correcting

the inflammations that harden the tissues and irritate or weaken the nerves. In a case of trouble with the liver the osteopath searches the neck for trouble with the vagus, examines the spine for any irritations to the splanchnic nerves, and seeks for twisted ribs as well. Any one of these lesions is capable of making trouble in the liver by irritating some nerve or nerves that supply the organ, and the osteopath alone is trained to discover this sort of cause for disease. All the various functions of the organs, secretion, nutrition, are under the control of the impulses of the nervous system. Hence it follows that various disorders result from irritations to the different nerves, according to which particular nerve fiber is disturbed.

The various disorders of the liver, from simple congestion of the blood to actual abscess, most often result from displacements of some kind in the body, and call for the osteopath to relieve them.



IT may seem strange that the "educated physicians," of whom Dr. Woods Hutchinson writes so much, have never found out these little twists and strains. It often happens, however, that when a man has been trained for years to observe some particular phenomena he is especially blind to other things not directly in his line. An entomologist is frequently very ignorant regarding comets. It would not surprise us to find a fisherman, skilled in the observation of the weather signs, but knowing next to nothing about running an engine. Neither should we be surprised that when a man has been trained for years to look for the cause of disease in chemical processes and microbes he should overlook a cause of disease that is based on twisted bones. He never was taught to look for a cause of that kind and simply cannot see it. Nevertheless, mechanical displacements DO cause abnormal chemical processes in the body, by irritating the nerves that control those processes, although it required a very independent and original thinker to discover the fact.

The osteopath looks first for the twists or lesions that may directly injure the nerves or circulation of the liver itself, but he does not stop there. His specialty is the anatomy of the human body, and he looks for anything that may cause disturbance in any of the organs or structures connected with the liver. This is necessary, because the liver has very varied relations to other parts, and what affects them will react on the liver, producing disorder in it.

One of the most important of these allied structures is the diaphragm, a thin sheet of muscle and tendon attached to the lower ribs and spine and arching across the thorax between the heart and liver. Supposing a twist of the lower rib has resulted from some strain in heavy lifting and reaching. It may cause no trouble with the nerves or circulation of the liver, but it may irritate muscular fibers of the diaphragm or the nerves to them. This will cause contracture of the muscle fibers; that is, they harden and pull constantly instead of only when required to do so. Now, the large veins of the liver empty in the vena cava,

a very large vein of the abdomen passing upward through the diaphragm. It is possible for the flow of blood through this vein to be interfered with and then a congestion of venous or impure blood in the liver is set up. Impure blood does the organ no good, it may readily be imagined, especially an oversupply of it. All the various functions of the liver are deranged by such a condition as this.

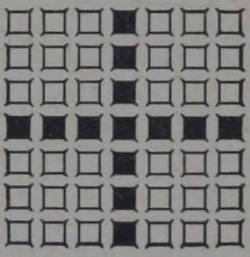
The osteopath examines the rib, puts it in place and then springs and stretches the lower ribs on both sides in such a way as to thoroughly relax and restore natural tone to the diaphragm. The venous blood moves freely on its way to the heart again and the liver trouble is cured.

Or perhaps the diaphragm is not contractured, but is relaxed and flabby instead. Its blood and nerve supply has been interfered with and it has lost strength and let go, sagging down out of its natural position. The liver lies directly under the diaphragm and is attached to it by a supporting membrane called a ligament of the liver. When the diaphragm sags the liver must sag also. This pulls on the nerves to the liver, irritating them, and setting up abnormal nervous impulses. It also interferes with the blood vessels directly and disturbs the circulation. Will the osteopath confine himself to stimulating the nerves to the liver? Not at all; he goes to work upon the diaphragm. The nerve that supplies the muscles of the diaphragm passes out from between the vertebrae in the neck, having grown into the diaphragm when it was located there in the embryonic stage of life. The osteopath frees these nerves from disturbance and stimulates them to stronger action to tone the flabby muscle. He works upon the circulation and promotes its activity. He raises diaphragm and liver both together, and by bringing about a healthy condition of the diaphragm cures the liver trouble.

Not only the diaphragm, but the heart that lies just above it, sometimes affects the liver. The blood from the liver passes into the vena cava, and this vein passes through the diaphragm and empties into the right side of the heart. If any diseased condition of the heart or its valves prevents the blood from escaping freely to the lungs, where it next goes to be

purified, it is dammed back in the vena cava and congestion of the liver results. In such a case as this the osteopath must treat the heart and strengthen and restore it as far as possible to a normal condition. If the stoppage in the heart is very serious, the veins that empty into it may pulsate at each beat. The connection of the liver to the heart is so direct that it may be felt sometimes to dilate at each heart beat as the blood is driven back into it instead of going forward to the lungs. Here osteopathy is of more avail than many drugs. The osteopath can do all that can be done to strengthen the heart, remove obstruction and restore the liver.

Further on in the course of the blood stream there may be obstruction in the lungs. Severe congestion of the blood here may lead to regurgitation, or forcing of the blood back into the right heart from which it comes. Then the blood will finally be driven back into the liver and congestion result there. In such lung diseases as this, therefore, the osteopath is necessary to free the circulation in the lungs and stimulate the liver to proper action. Nothing else will work so directly on the diseased conditions with so little demand on the vitality of the patient.



THE functions of the liver, however, are most closely connected with the digestive tract. In the embryo the liver and pancreas both start as little buds growing out of the lining membrane of the future intestinal canal. They grow, develop special capacities and assume duties of their own in the domestic economy of the organism, but their relationship to the lining of the intestines remains very close throughout life. All of these parts are glandular in nature, all secrete fluids; the lining of the intestines and the liver, at least, excrete waste matter as well, although the special function of the lining membrane is to absorb food material. The circulation of all these parts is closely connected, and the nerve supply to all is from the same solar plexus, splanchnic nerves from the spine and vagus nerve from the cranium. Trouble in the liver can hardly occur without more or less trouble in the rest of the digestive tract so closely associated with it.

Therefore your osteopath never works on the liver alone, but devotes some attention to the whole abdominal condition. Bilious vomiting requires treatment of the liver first and foremost, but it also requires treatment of the bowels to relieve the constipation which is nearly always present, and of the stomach to tone it up and correct the abnormal secretions. For you cannot escape abnormal secretions in the digestive tract when the liver is congested and out of order. The blood from the whole tract, stomach, pancreas, intestines and all, drain back to the heart through the liver; therefore if it is checked in the liver it congests in the other organs as well. You cannot have pure and healthy secretions from these glands and membranes when the blood vessels supplying them are gorged with vitiated, venous blood. Therefore the osteopath treats the liver

first to remove as much as possible of the cause of all the trouble and then works upon the rest of the organs to cure the effects. The miseries of dyspepsia, the "blues" of biliousness, disappear under this rational and effective work.

Furthermore, the osteopath is competent to look after the diet in cases of this sort. It is a mistake to suppose that he knows nothing but bones, or, as some medical men say, "a certain kind of deep massage." True, he knows these things, but so very much besides. Indeed, the osteopath has a full medical education in all respects, barring drugs, and is especially interested in diet. He knows that the portal vein carries to the liver the proteids and starches and sugars absorbed in the intestines; that this flow of portal blood is greatly increased after eating, and that constipation is the great accompaniment of liver trouble. Therefore, he regulates the food of the melancholy sufferer to give the liver as little as possible to do, while keeping up the patient's strength. Also he directs such food-stuffs as will help to keep the bowels active and lessen their work. This is no easy matter, as diet must vary to suit each individual as well as to meet the climatic conditions, and must depend on the foodstuffs grown in the section of country where the patient lives. Some common articles of diet in Florida are not easily obtained in Maine, and the food suitable to Louisiana would not agree with a hard worker in a Dakota winter. Hence the necessity of a doctor's advice in the matter.

Thus the osteopath comes to reinforce the liver in the battle for existence. He would make us all "fat, sleek-headed men, and such as sleep o' nights." He wishes to see the race a vigorous, hardy, cheerful people, for perhaps no one better appreciates a strong and handsome body than an osteopath. One who works to build up and maintain perfection has a profound ad-

miration for it when it appears, and the osteopath has a keen eye for the well set up man or woman. All the more can he appreciate health for knowing what it adds to the inner joy of living. In these days of Christian Science and New Thought, no one does more to promote a cheerful and courageous spirit than the osteopath, for he removes a burden that weighs down the mind of man when he stimulates the torpid liver to its duty. This work was not intended for the soul to do, but for the hand of man, and when it is done the mind is free to perform its set tasks with clearness and comprehension. Let the osteopath attend to the liver, then; it is good for the soul and for the patient's friends. as well.

Osteopathy

A PREVENTIVE
: OF DISEASE :

OSTEOPATHY

A Preventive of Disease

THE old adage, "An ounce of prevention is worth a pound of cure," has been revised in modern times. Now it reads, "A day of prevention is worth a year of cure." The system of osteopathy is prophylactic or preventive of disease.

First: In childhood—the cradle is the starting place for a life of disease and misery or a life of health and happiness. Hardly does the infant open its eyes to behold this big, round world in which he lives, than his face begins to give expression of pain. Toward night of each day he doubles up and screams from something very uncomfortable in the region of the stomach. If we know anything of babies and their ailments, we at once recognize what our grandmothers call "three months colic."

More and more are we impressed with the trouble when father and mother each take their turn in walking the floor with the baby half the night in utter despondency. The old idea our grandmothers had of heating flannel cloths and applying them to the stomach and bowels of the infant was not a bad remedy. The heat brought more blood to these organs and the child was temporarily relieved. Then the next night, O, the next night, pain again, a little more trotting on the knee, face downward, to expel the gas from the stomach, and a great deal more walking the floor, and the same strenuous condition until they almost gave up in despair.

Let us find out what was wrong. On examination it was found that the little one's hands and feet were cold, as was also its spine from middle dorsal to lower sacral region, and its abdomen was distended with gas. This was certainly not a natural condition, then why should it be so? The gastric and intestinal juices were not sufficient in their flow, and the liver was inactive. The food was not sweetened in the stomach so there was fermentation forming gas, causing pressure on the nerves, and making pain.

The osteopathic physician can, by certain scientific manipulation, remove the pressure from the nerves, dispel the gas and increase the blood flow to the digestive tract. This, in turn, creates the digestive juices and an increase flow of bile from the liver. If left to itself, we have not only momentary distress, but the way is paved for a subsequent indigestion and a chronic constipation by a drying of the walls of the stomach and bowels. This lessens the peristalsis, or onward movement of the food, a little thing if taken in time, but if not cured in childhood causes dyspepsia, constipation, non-assimilation and consequent weakened constitution. Cholera infantum, dysentery (bloody flux) and diarrhea are diseases so prevalent in childhood and at the same time so grave in their nature that they should be guarded and prevented.

Granting that climatic conditions, improper food, teething and getting damp and cold are exciting causes of these conditions, still we find that they can be controlled and often prevented by proper treatment from an osteopathic physician. He will see to it that the temperature is equalized over the body, that the liver is stimulated to allow a proper flow of bile and allay irritation within the bowel wall. There may be contractions in the tissues of the bowel itself; if so, they are corrected, resulting in a free circulation

of blood to the intestine and a warming of the bowel.

In all cases of this nature, there is trouble in certain portions of the spinal column, which interferes with the nerves to the intestines. If these hindrances be removed, there is less tendency to a weakened condition which so often threatens the life of the little one.

Often we find in the child a condition in which the spine is flattened, too smooth, the vertebrae or sections of the spinal column lying too flat upon each other, lessening the spaces or foraminae on either side of the bodies of the vertebrae. This condition causes an interference with the normal flow of blood to and from the spinal cord.

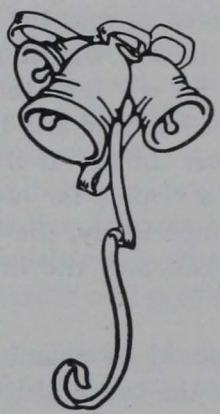
In view of the fact that blood feeds nerves and nerves make blood, this abnormality impairs both the blood and the nerves so that the parts of the body to which these nerves are distributed cannot perform their functions. So we find the child does not sit alone, cannot poise his head and has no power of locomotion in the lower limbs. If this condition remains the child may be a cripple for life; if he walks at all, he does so very imperfectly, the hips fly out of joint, the ankles are weak and the muscles have no tonicity.

If the child could be examined by an osteopath he at once detects the cause of the weakness and will proceed to broaden the spaces between the vertebrae, allowing a natural flow of blood to the nerves, building them up and sending proper nutriment and stimulus to the different organs which produce life, motion and action.

Perhaps it has never occurred to you just how motion is produced in the different parts of the body.

It is brought about through the contraction and expansion of the muscles to which the nerves of motion are distributed, producing the process of walking, standing, breathing, lifting, etc.

Bed wetting is a very common thing in childhood, and is often overlooked by the parents. A child may learn to control the bladder even in the first year of his life, and in the second year there should be but few exceptions. After the child has reached the age of three, and there is not a complete control of the bladder, it is well to look into the cause of the condition. If the bladder has been emptied before the child retires at night, there should be no involuntary movement during the night.



THIS disease is usually caused by an interference with the nerves which go to the muscles which control the outlet of the bladder. If these muscles are weakened and the pressure of the fluid comes against them, they are relaxed and the bladder is emptied, without the volition of the child. Here we must trace the cause of this trouble back to its origin. Invariably there is trouble in the lumbar and pelvic regions of the spine, producing a pressure, so that the nerves are impaired and fail to keep the neck of the bladder closed until the proper time for evacuation. There are some other causes which may contribute to this disease, such as worms, diseased kidneys, constipation, etc., but these are rare and usually secondary.

Whatever the cause (unless there be an abnormal growth, a surgical case), proper adjustment of the parts removes it. Osteopathy is the panacea for this annoying disease. Instead of afflicting the child with punishment for the thing over which he has no control, have this condition prevented in early life.

There are diseases of the ear, eye, nose and throat which can be prevented, if in childhood we look after the abnormal relations existing between the parts of the anatomy of the neck, for here we have hindrances to the normal flow of blood to and from the parts named. One of the most deplorable facts of the present age is the prevalent use of spectacles for children, leaving out the very few exceptional cases where there is deformity from birth, these affections of the eyes can be prevented by removing, during childhood, the lesions found in the neck. Many of these are brought on by falls, twists, slips, etc., while at play. One very dangerous play is "whip-cracker," especially for the child at the end of the line.

How often we correct the child for mouth-breathing, when we ourselves need the chastisement, or rather enlightenment, for neglecting such a condition. The impediment to a free circulation of blood and to the nerves through the neck produce the difficult breathing, so that the child is compelled to open the mouth to allow more space for the expiration of air.

The closing of the eustachian tubes and abscess of the middle ear can be prevented by osteopathic treatment. Also tonsilitis, enlarged tonsils and inflammation of the throat.

If we could only impress upon the parents the importance of looking after the cause of these conditions and having them removed in early childhood, it would relieve the great number of children who are brought up to the block to have a part of their sacred anatomy cut away and cast off as useless.

We believe that our Creator was all wise when He made man in his own image, and put the tonsils into the throats of human beings. We have no useless organs in our bodies and no useless spaces. He who discards the tonsils from the body impresses us with the fact that he is ignorant of their uses or functions in the human body, and apparently thinks that an absolute mistake was made by the God of wisdom in shaping our anatomy.

I was once told by a physician of the "Old School" that just as soon as his grandchildren were old enough he just brought them up and cut out their tonsils so as to have no further trouble with them. This was a doctor with an extensive practice, and seven grandchildren were his victims. There was evidently something wrong with that M. D.'s reasoning. He probably never learned that the tonsils were made to lubricate the bolus of food, thus facilitating deglutition; to aid digestion and blood making and to help make

a good quality of voice. With osteopathic treatment, the causes which bring on these diseases are removed instead of removing the organs, and the body is left with all the means with which nature endowed it for the formation of a healthy existence.

There are diseases of childhood which are inevitable; whooping cough, mumps, measles, scarlet fever, etc., and all agree that these diseases are not so serious within themselves, but it is in their complications that we find the greatest fear of serious results. Under osteopathic treatment we need have no fear of these diseases "settling" in the various organs to weaken the constitution through life; no weakening sequelae that cannot be overcome, if during the progress of these diseases there is careful treatment of the parts to which there is a tendency to weakness.

Following whooping cough there may be crossed eyes by an undue strain in coughing, producing contraction in a certain set of muscles to the eyeball. This condition can be relieved by inhibiting the nerves to those muscles and the eyes are again straight in the orbit. Again, there may be left a depressed clavicle or collar bone or a tilted first rib, which, if it remains, may produce goitre—enlargement of the thyroid gland —and in interference with the nerves to the heart and lungs. One can hardly realize at first thought what serious conditions these may bring about in the heart and lungs. A weakened lung forms a nest for bacteria, causing pneumonia and tuberculosis. In the heart, valvular diseases of all kinds spring up. These conditions can be and often are removed by osteopathic treatment.

Next in maidenhood and boyhood, osteopathy is the preventive of disease.

No period in life is more to be guarded than the formative or transition period. The sexual develop-

ment comes when there is very rapid growth in the body; hence, special attention should be given to the spine. The ligaments may become loosened and the muscles lax along the spinal column, and the nerves perverted. Children sitting in improper attitudes at the desk while at study, too long in one position without change, the seat may be so high that the feet do not touch the floor, or carrying heavy loads tilting the body to one side to balance the weight. All these cause spinal curvature and a tilting of the pelvis and subsequent diseases.

LET us not overlook the tendency to chorea or St. Vitus dance, which is so prevalent in both boys and girls, from the ages of six to twenty. It is caused by lesions in the lower cervical and upper dorsal vertebral regions.

The girls who suffer each month from puberty on to advanced ages are not in a normal condition. There is a real cause which produces the cramps and the great distress in their lives, and it can be removed. To prevent the development of this condition, they should be examined early in life by an osteopath and treated if necessary; see that the lower dorsal and lumbar spine is correct, and that one hip or pelvic bone is not higher than the other. Such defects cause pressure on the nerve centers from which the nerves are distributed to the different female organs, and prevent a proper flow of blood to the parts, resulting in improper growth or non-development. Think of the lives of suffering which can be prevented if we but look into the condition of these bodies while they are young, and have them shaped normally as was intended. What mother can neglect so sacred a duty if she has been informed on this subject?

A very common condition found in both the boy and the girl, from the ages of twelve to sixteen, is a protrusion of the scapulae or shoulder blades, giving them the appearance of stooped or round shoulders. The distance between their arms is lessened in the chest, and in the back it is lengthened. "Straighten up, straighten up," is contsantly thundered at them from the parent. The fact is, it is impossible for them to straighten up. This is a condition of spinal curvature, either lateral or posterior. Since the ribs are attached to the spine, a bending of the spinal column

causes a bulging of the ribs, and as the scapulae lie against the ribs they are thrown out in an angular shape. This condition involves the nerves which are distributed to the lungs, heart and stomach, interfering with their proper development and functions. In the lung tissue, the expansive power is lessened and the resistance against pneumonia and tuberculosis is impaired. In the stomach it causes a diminution in the gastric juices producing nervous dyspepsia. "As the twig is bent, the tree is inclined." Just so, as the spine is curved in the child, so will the abnormality result in serious weakness in advanced age.

The osteopathists can readily discern any deviation from the normal in the spines of children—the real cause of so many diseases. He is the engineer who can remove all hindrances in the working of the human machinery, allowing a smooth, easy, natural action, leading up to normal growth and normal functioning.

You may have been told by your M. D. family physician that the child in time would outgrow these spinal irregularities. This we positively assert is a grave mistake, unless nature has some assistance in their correction. Any abnormal inclination weakens that particular part, and the longer it remains the greater becomes the weakness, until we find that what was once but a slight deformity in the back and readily curable, has developed into a serious condition and perhaps a cripple for life. Do not be consoled by procrastinating words, but get busy. See to it that the case of your child is taken in time to be corrected by a spine specialist—the osteopath.

The following fact will serve to indicate the great prevalence of spinal irregularities: The physical culture director of one of our largest Y. M. C. A.'s recently reported that more than fifty per cent of sev-

eral hundred applicants he examined had various degrees of spinal curvatures. This is only one instance of the vast number of adults who have serious physical abnormalities of which they are unaware.

Let us not overlook the cause of so much stomach trouble in boys and girls. At this age they are leading very active lives, or should be. It requires a great deal of nerve, energy and a normal flow of blood, lymph and body fluid in order for the organs in these active bodies to perform their natural functions.

In the child's studies, athletics, etc., he is striving to excel in everything. If he has the proper relations existing between the higher and lower nerve centers, and the proper relations between the various organs, all is good and well, for a child has an abundant store of vitality.

If there should be any abnormality in the bony framework, or twisted ligaments or contracted muscles, hindering the natural nerve energy or the proper supply of blood to the stomach, then we have the different diseases of that organ. It being a highly vascular one, it suffers greatly from a lack of blood to create the gastric juices in sufficient quantity to digest the food, perhaps hurriedly eaten.

This leads us up to one of the most common and distressing diseases of manhood and womanhood—constipation. Intestinal inactivity is not a cause, but a serious symptom of grave causes, a condition which is needing very careful investigation in our day. It is an admitted fact that purgatives, cathartics or laxatives do not cure constipation, but they have a tendency to make the bowels more inactive and to make the disease more chronic as they deaden nature's forces. The real causes of the trouble lie beyond the intestinal tract, and constant drug-taking only weakens nature's power to remove the cause.

Constipation is very frequently caused by a disturbance in the splanchnic area of the spine. The delicate plexuses of nerves situated within the bowel wall, which governs bowel motion and secretion, connected as they are with the sympathetic nerves, are hindered in their action by spinal lesions. There is a drying of the bowels, perhaps begun in childhood by a lack of bile from the liver and a lessened secretion of pancreatic and intestinal juices; the food eaten becomes a dry residue causing constipation. Then we have the lessened peristalsis or movement of the bowel wall, caused by improper innervation to the intestinal tract. There may be a misplaced coccyx at end of spine, causing pressure on the rectum, thus producing constipation and a prolapsus resulting in the distressing condition known as piles or hemorrhoids.

OSTEOPATHY has been proven to be a great relief for constipation and is even admitted by the "regulars" to be the better remedy. If the osteopathist be called before the disease becomes a reality, he will, by removing all abnormal conditions in the body, prevent the disease which would arise in after life. If in the child there is a weakened bowel, osteopathy can assist nature in strengthening the weakened organs and build them up making a healthy intestinal tract.

Migrane—sick headache, not a simple headache but a disturbance in the nervous system causing sick headache, usually affecting only one side of the face or head—is a very prostrating and distressing ailment. From this disease the "dope habit" is apt to result, especially in women, on account of the opiates given to deaden the pain, which is almost beyond endurance. If osteopathy had no other therapeutic value than the prevention and cure of this dreadful disease, it would still be a wonderful boon to mankind.

In the causes of this disease we find in the neck pressure on the cervical nerves, and usually perversion of the nerves to the liver, stomach or generative organs causing reflexes which excite headache.

It may seem that the cure of these cases by osteopathy is slow, but if we consider the length of time it took to tear down nature's bulwark, how delicate and intrinsic the construction of the nerve-cells and the building of nervous energy, some idea may be gained of the time it takes to reconstruct and build up the parts to a normal condition.

Nowadays we have so many cases of paralysis, especially among men, and we wonder why it is so. An over active nerve finally becomes paralyzed. If there is pressure on a nerve for a short time only, it

will irritate that nerve, and if the pressure continues, the nerve becomes exhausted and its structure altered, followed by impaired function. If it be a nerve of motion, the pressure first causes cramping, and if it continues it causes paralysis and atrophy or wasting away of the nerve and of the muscles it supplies. If it be a nerve of sensation or feeling it will have a pricking sensation, numbness, soreness and sometimes acute pain. Then the organ of the body over which this nerve has control becomes weakened in its function and derangement of health follows.

Brain-fag caused by overwork, worry and too great responsibility causes insomnia, and it is difficult to overcome this constantly distressing condition. It may result in apoplectic seizure, paralysis and final death.

Osteopathy cures sleeplessness, and if there be pressure on nerves or interference with the circulation producing a tendency to apoplexy or paralysis, it is removed and a stroke is prevented. Certainly in these cases "A stitch in time saves nine."

The young medic may say: "Your theories sound very plausible and might be accepted by one who does not believe that most diseases originate from without the human body and not from within, by means of the bacteria so prevalent in our day. How do you deal with them, osteopathically?"

The osteopath also is acquainted with Mr. Bacillus, having met up with the streptococcus diphtheriae, diplococcus pneumoniae, Klebs-Loeffler, the bacillus of Eberth, etc., but they are not so friendly with him. They propagate in the broken down tissue, retained poison in the system, depleted compounds, worn out

nerve cells, congested blood coaglum and an inactive organ.

If the human anatomy is properly adjusted osteopathically, nature removes the waste, builds up broken down tissue, restores nerve energy and a natural flow of normal blood, whereby the bacteria become ineffective. In other words, if the physical condition is normal, function will be normal and the system will resist bacterial invasion. If they have gained an entrance on account of unhealthy tissue, restoring the tissues to normal renders the bacteria inoperative.

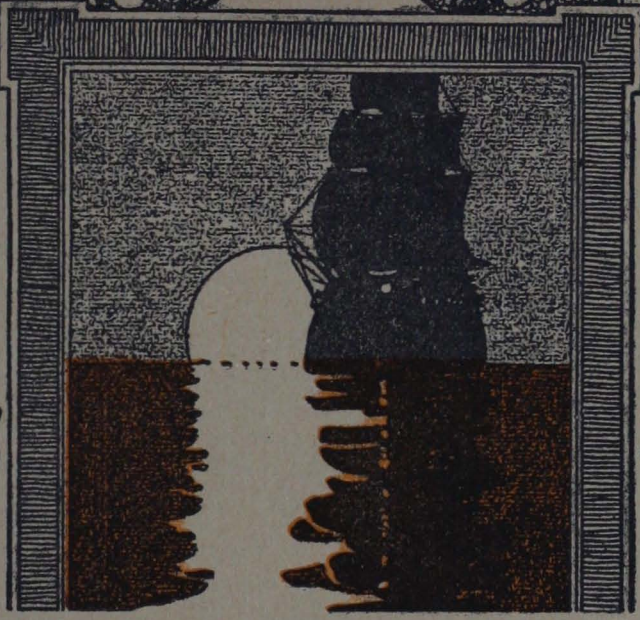
Poisonous drugs are very foreign to the delicate machinery within the divinely shaped human system, they lessen nerve energy and lower the resisting powers of the body, thus paving the way for a multitude of serious after effects.

A normal balance of the body and a normal maintenance of the parts will prevent a hardening of the arteries—arterio-sclerosis and Bright's disease. The hardening and thickening of the walls of the arteries causes a diminished blood flow, elimination is decreased and the heart is excited to greater effort. This often occurs too early in life, making the person prematurely old. Old age cannot be prevented, but it can be delayed until due season.

Nothing helps so to keep the tissues young as osteopathic treatment, making life happy and enjoyable, by the smooth working of the human mechanism. harmony and health reigning within.

The clear eye, the blushing cheek, the hues that play over rosy lips remain through life, imparting new charms to age, just as the soul is made light with heavenly grace.

In this body of ours, made by divine hands perfect, capable of growth and repair, built up from its own laboratories stored within, did we but use it aright, the mountain of peace would reign supreme. Then youth and old age would clasp hands and express their relations the one with the other.



OSTEOPATHY

A RATIONAL METHOD OF TREATMENT

OSTEOPATHY

A Rational Method of Treatment

THE human body is a machine. As a finished product of the Creator it is perfect. Not only is every part adjusted to every other part, but it is self-recuperative. Like the newest automobiles it is self-oiling, but more, it manufactures within itself the lubricants needed to keep the machinery in motion.

But still more, the machine being composed of living tissue is subject to constant chemical changes, and the body has within it a great chemical laboratory which is able to produce every chemical change and compound needed by the body in any emergency.

The blood is a great irrigation system which permeates every portion of the body with its main canals and smaller laterals until it finally floods every tiny cell of the structure of the body.

This blood not only carries the fluids needed by the body, but also the food products which sustain life, and out of which the chemical laboratory selects ingredients for the necessary chemical changes. This blood stream in its travels passes over, around and through muscles, bones and ligaments.

Located in this wonderful body is a controlling force, a general superintendent as it were, the central nervous system. This nervous system begins in the brain and the spinal cord, but like a great telephone system, it sends out its wires (nerves) everywhere. Every bone, muscle, ligament, organ, blood vessel and cell is in direct communication with, and under the control of the central nervous system. Every thought, every heart-beat, every muscular contraction, the action of every organ and movement of every cell is in response to the impulses conveyed thereto, consciously or unconsciously, over these nerves from the central nervous system.

If the nerves to any part of the body fail to act from any cause that part will become impaired to just the degree of the nerve failure. If the nerves are carrying too many impulses an irritation or congestion takes place. As do the blood vessels, so do the nerves pass in, through and around the muscles, bones and ligaments which make up the framework of the body.

If the blood vessels carry the food to all the parts of the body and the nerves supply the motive force, then the next premise of osteopathy is already proven, viz: with an unobstructed blood supply and an unimpeded nerve supply any disease of the body is well nigh impossible.

Now put it the other way: all diseases are caused by either an interference with the blood or nerve supply, or both. As an illustration: one sits in a draft when too warm, the cold air strikes, say, on the back of the neck or between the shoulders. The nerves of

the skin, irritated by the unusual condition, begin to send rapid impulses. These are first conveyed to the nearby muscles, which, in response to these impulses, contract. The vaso-motor nerves (the nerves which control the blood vessels) have their center of influence in or under the muscles of this area.

By this contracture the nerves are irritated and begin to send erratic messages to the heart and to the blood vessels, generally to nearby parts, congestion takes place and we say we have a cold. As the mucus surfaces are the most delicate, this cold is nearly always first felt in the nose or throat. There can be no such thing as a cold until the vaso-motor nerves send the congestive impulse.

What then is more sensible than to take that form of treatment which will go to the cause, remove the contracture, free the nerve forces, which in turn free the circulation, and thereby cure the cold?

Another illustration: The nerves controlling the secretions of the stomach as well as those controlling its blood supply, arise from the spinal cord in the dorsal area. These pass out between the vertebrae composing the spinal column and then through the muscles before they get to the stomach.

Suppose, that on account of some previous muscular contraction caused by typhoid fever or some other disease, or perhaps by some fall or blow, or an abnormal position persisted in, one or more of these vertebrae are drawn out of line. Then these nerves passing through are interfered with and they begin

to send abnormal impulses to the stomach and we soon find that we have stomach trouble.

An excess or lack of acids, a nervous irritation (nervous dyspepsia), a lack of tonicity (prolapsed stomach), ulceration and many other conditions may be traced to this little deflection of the vertebrae from its natural position.

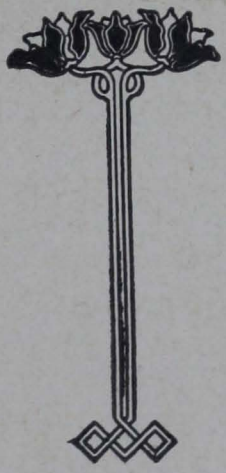
What more rational treatment could there be than to have the position of the vertebrae corrected, the nerve forces released, the blood supply made normal and the chemical laboratory permitted to do its perfect work?

What more irrational than to pour a lot of drugs into a stomach unable to care for what is now in it because of the inadequate nerve-and-blood-supply and expect a cure to result?

The spinal column is composed of a series of bones placed one upon another and held in place by intervertebral disks and ligaments. These bones are movable on each other to a great degree without creating any inconvenience or causing any difficulty. You can readily see how much these bones must move on each other in bending or stooping and this causes no trouble to us. But if one remains in one of these unnatural positions for some time, one becomes tired and pain is soon experienced.

Why is this? Because the nerves coming through these bones can be stretched for a short period of time without doing harm, but if it is kept up for awhile,

the nerve becomes tired and irritable and manifests its irritability in pain and a tired feeling. Now, if from any cause one or more of these vertebrae are held permanently in one of these positions, a permanent irritation is established, and the organ that is supplied with nerve force from this particular segment of the cord will become diseased in consequence.



WHY not correct these abnormalitie of the spine and thus remove interference with the nerve-and-blood-supply of the organ involved? Why pour a lot of drugs into the stomach to correct a condition that is mechanical and has its origin in the spinal column?

Let me illustrate:

A little girl was brought to my office suffering with a congested liver and with a pain in the back. Examination revealed a sharp curvature in the middle dorsal area. It was discovered that the girl occupied a desk in school where she had to raise her shoulder and produce a curvature in order to write. The writing hours were so prolonged that the temporary curvature became permanent, with the aforesaid results. A correction of the curvature and a change of seats to maintain the correction resulted in a permanent cure.

But, says one, there are a host of diseases that are not caused by spinal irregularities, and how is the osteopath to reach these? That there may be diseases not caused by spinal irregularities we are willing to admit; but there are no diseases in which there is not first an interference with the blood or nerve supply, or both, thus producing at least a predisposing cause.

Take, for instance, an acute disease with which we are all more or less familiar—typhoid fever. We say that typhoid fever is caused by the presence in the body of the typhoid bacillus. This is true, but we might eat and drink these bacilli by the million and they could do us no harm unless somewhere along the course of the intestinal tract there was found an area of mucus surface which was inflamed or denuded, or

in some way diseased as the result of an impeded blood flow.

But, the questioner says, suppose this condition does exist, the bacilli have found lodgment, typhoid fever is at work in the system, what can the osteopath do? Medicine stands appalled and says good nursing is all we have to offer. Is not the osteopath also helpless? Let us see.

The bacilli are at work; their detritus is a poison which acts as a direct irritant to vaso-motor nerves. The irritation to these nerves causes first a restriction of the arteries. This produces inflammation and makes the blood flow through a restricted space, therefore it must flow faster, causing more friction and heat. The heart must work harder and faster to pump the blood through this restricted and inflamed area. This briefly states the conditions of typhoid fever. Now what can the osteopath do?

In the first place he corrects the contraction in the vaso-motor area, or any other physical defect that acts as a predisposing cause. Then by gentle direct pressure inhibits the action of the vaso-motor nerves. This relaxes the muscular tension of the blood vessel wall and expands it. The heart, relieved of the extra burden of labor, returns to its normal rate, and volume of beat. In a short time the fever is reduced and the patient is on the road to recovery.

There is no drug that will kill these bacilli without injury to the patient, but nature has provided in this wonderful machine of ours a foe to the bacilli which will surely overcome them if it can have a chance. I refer to the white blood corpuscle. The trouble in typhoid fever is that the blood vessel wall is thick-

ened and the white blood corpuscle cannot get through, and there is also a lessened amount of blood in the vessel.

The abdominal aorta divides into two arteries called the iliacs. Just above this bifurication it gives off all the arteries that supply the intestines. The blood vessels of the intestines are capable of greater distension than most of the others. It is said that there are enough arteries supplying the intestines to hold all the blood in the body, but owing to the peculiar condition existing in typhoid fever the blood does not circulate in the intestines.

When the blood vessels are relaxed to their normal size, the osteopath puts steady pressure upon the common iliac arteries and forces the blood into the abdominal cavity, thus promoting a free circulation. The white blood corpuscle, detecting the presence of its inveterate enemy, at once begins the warfare, and the inevitable destruction of the bacilli begins. This treatment, if begun in time, may also result in the aborting of a case of typhoid fever.

Is this not reasonable? And are we not safely within the bounds of truth when we say osteopathy is the most rational of all the methods of treatment ever offered to the public?

Here is a typical case of pulmonary tuberculosis. Because of a depleted blood and nerve supply to the lungs the tubercle bacilli have found lodgment in the lung tissue and are commencing their work of destruction. A careful physical examination reveals the fact that the upper ribs are crowding each other, the upper dorsal vertebrae are deflected from their normal position; this causes interference with the nerve-and-blood-supply of the lungs. Further examination re-

veals the fact of emaciation, rapid heart beat, non-assimilation of food, an inactive liver, loss of appetite, etc. What must be done? As in typhoid fever, no drug has yet been found which will destroy the germ and not injure the patient. To be sure there have been heralded to the world by the medical profession a number of serum cures which in turn have been discarded as useless or worse than useless, and none of them have stood the test of time. The entire healing profession agrees now that the only hope for the destruction of the bacilli lies in the white blood corpuscle, and to this end the system must be built up and the tissues restored, the blood areated and the white blood corpuscle made strong and valiant for the fray.

The medical profession itself has declared the futility of drugs. There is poison enough in the system now. More poison would tend to further weaken the little soldiers (the white blood corpuscles). The medical profession also tells us that outdoor living, rest, diet, forced feeding and so forth is the only salvation, and since this sensible idea has taken hold of the medical profession thousands of lives have been saved, which under the drugging system would have filled premature graves.

DOES the osteopath stand as helpless before this disease as do the medics? By no means. Can we assist nature in any way? We can. The author lives in a locality where the "lungers" congregate, has for some years been connected with a tubercular sanitarium, has had hundreds of these cases under his treatment or advice and can speak from a large practical experience.

I do not wish to depreciate the outdoor treatment outlined above. It is right, it is necessary; it is the only sensible way to live if one is to get well. What I shall recommend is in addition thereto.

In the first place, the osteopath will rectify the malposition of ribs and vertebrae in order to give the best possible blood and nerve supply to the lungs. If it is a case of long standing this may take months; but it can be done. Vibratory treatment may be given over the lungs with good effect. It will start into activity every molecule under the vibratory influence. It will by increased molecular activity bring a larger amount of blood to the part where it is most needed, and it will help to free the lungs of the accumulated debris, make the cough easier and allay irritation. The osteopath by treatment will stimulate the nerves controlling the stomach, the digestive tract, the liver and so on, thus aiding in the building up process. He will stimulate the spleen, adding to the actual number of white blood corpuscles. He will control the fever. He will do all this without the aid of drugs and without doing one thing that will harm the patient.

Is this not a rational treatment?

Let us get still another viewpoint.

One of the cranial nerves is called the pneumogastric; it furnishes a part of the nerve supply to the muscles of the neck, to the lungs, to the heart, to the stomach and to the liver; then through the solar plexus to every organ in the body. In it are the fibers that act as a brake or governor to the heart. Also, trophic fibers (that is, the nerve force that feeds the tissue) to the heart and liver as well as sensory fibers, the ones that express pain. It does not take a great intelligence to reason that if anything went wrong with this nerve the results might be far-reaching. We might have wry-neck, palpitation or enlargement of the heart. We might have mitral regurgitation, fatty degeneration or any one of the other diseases of the heart in consequence. It might be the first cause of tuberculosis, asthma, pneumonia, bronchitis or tonsilitis. It might cause vomiting, nausea, heartburn or any other of the ills of the stomach. It might cause any of the diseases so common to the liver, it might produce gallstones or even appendicitis.

This nerve comes down from the cranium through bony cavities and muscular tissues. Without an accident, it is well protected, but suppose one of these vertebrae becomes subluxated and pulls on or pinches this nerve?

Any one of the above diseases might result, one or more surely would.

What shall we do? Take some morphine to allay the pain; some drastic drug to stimulate the liver; some more drugs to overcome the effects of the morphine and purgatives and then take medicine again to overcome the last effects?

It seems to me to be more rational to call in a competent osteopath, have him look you over, take the "kink" out of the neck, release the pneumogastric

nerve, let nature have a chance to get back to normal, which she will surely do if she has only half a chance.

Another illustration:

The sciatic nerve arises from the cord in the lumbar region, passing down into the pelvis and out of the pelvis through the sciatic foramen, a notch in the innominate bone and on down to the leg. This is a large nerve with a heavy sheath, and not easily irritated. We sit on the muscles through and under which it passes, and ordinarily do not injure it in any way.

In true rheumatism—that is, a rheumatism in which the nerve irritant is a retained uric acid which the system changes to a lactic acid—the sciatic nerve on account of its size and protection would be likely to be the least affected.

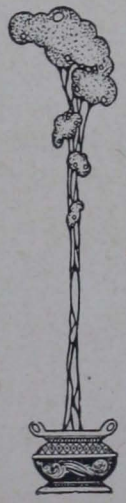
In conversation with a medical doctor some time ago, who has had charge of a sanitarium devoted exclusively to the treatment of rheumatism, he said to me that he did not believe one per cent of the cases of so-called sciatic rheumatism was true rheumatism, that most of such cases were pressure rheumatism or rheumatism caused by a mechanical interference with the sciatic nerve. I will illustrate with a case from my own experience.

In the summer of 1900 a young man came to me suffering with the most severe so-called sciatic rheumatism on both sides. He had been for a period of six months under the care of physicians who had so pronounced his trouble and was no better but rather worse. He had been a newsboy on the train, and had been in the habit of jumping off the train at every station while the train was in motion. Upon examination the suspicions aroused by the occupation history

were confirmed. I found that both innominate bones were slipped upon the sacrum. They pulled (if one may use that expression) upon the sciatic nerves steadily, causing an irritation. A correction of the bony lesions resulted in a complete and radical cure.

I did not see him again until ten years later, when he told me that he had not had a sign of sciatica since.

A woman called me to see her and said she was suffering with a severe case of sciatica. Examination revealed a misplaced uterus, the uterus resting upon the rectum and latterly upon the sciatic nerve. This had produced a pressure neuralgia. A correction of the displacement worked a cure in a few days.



IS THIS treatment rational? Or would it seem more rational to the reader to pour a lot of drugs into the stomach and permit the pressure condition to continue? Suppose a case of true rheumatism. The kidneys are inactive, the liver sluggish, the chemical laboratory clogged with debris; would it seem rational to put more poison and debris on the shelves of the laboratory? Would it not be better to clear up the blood and nerve circulation to the kidneys and liver, help to sweep out the debris and give nature a chance to use her chemical laboratory?

One more illustration:

In the spring of 1906 I was called to see a girl 16 years old, who was as near total paralysis as one could be and live. She could not move a finger, toe or motor muscle of the body. She could not talk. She could only swallow and wink her eyelids. Her physicians had diagnosed her case as an auto-intoxication paralysis caused by retarded menses, and at a council held the day I called, said she had only a few days to live at best.

Examination revealed a very marked double lateral curvature of the spine. While she could talk, she had complained of pains in her back, but during a period of six months treatment under medical doctors no examination of the back had ever been made.

The usual osteopathic treatment for curvature was given and immediate, though gradual improvement was begun. She is today as well and strong as any young woman in our town.

Let the reader judge for himself which was the rational treatment in this case. Both kinds—medical and osteopathic—were tried.

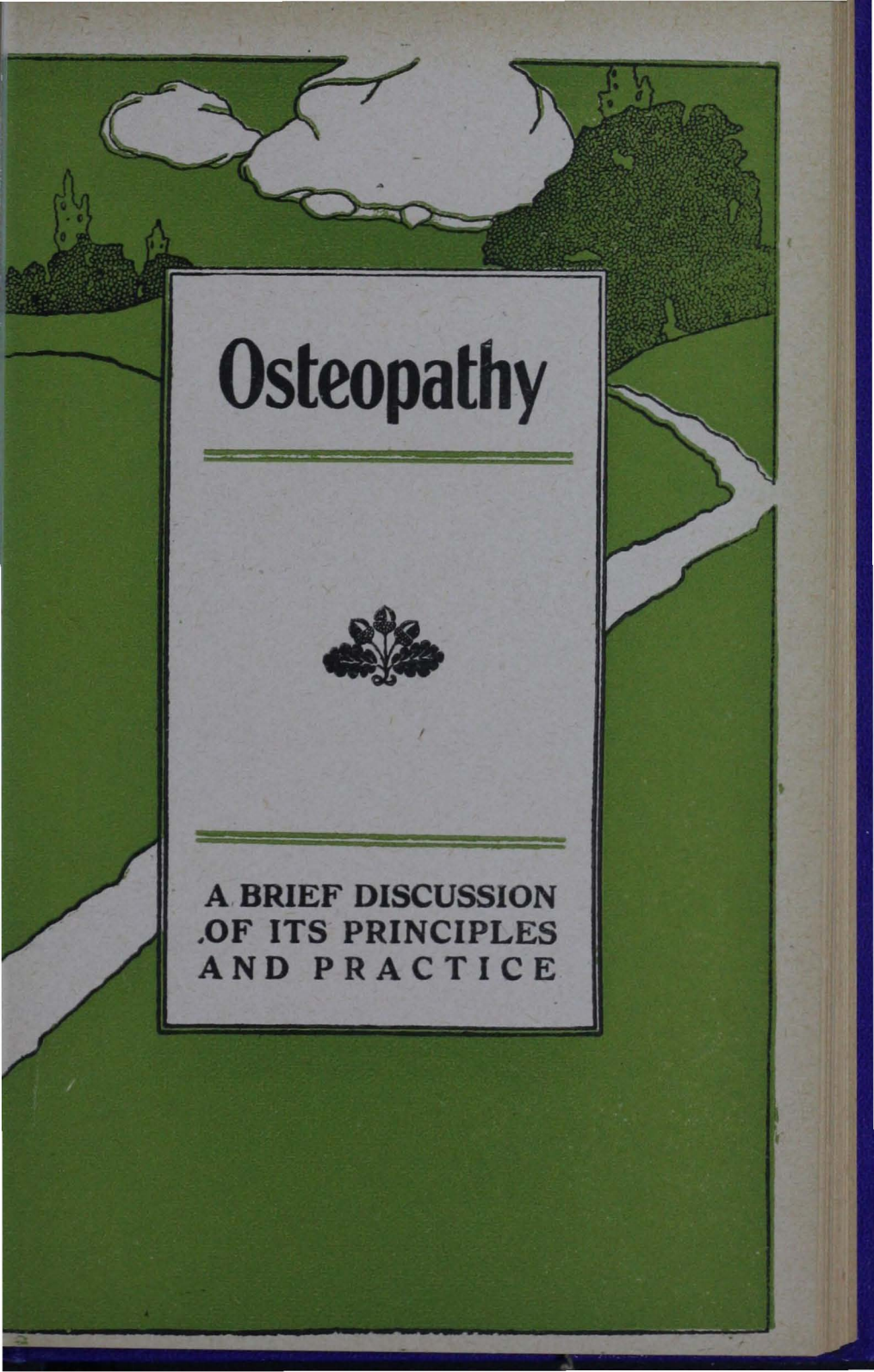
I use these cases out of my own experience because I know them best, but they can be duplicated in the experience of every well equipped osteopath in the country.

As was said in the beginning of this article, the body has within itself all the chemical equipment needed to correct any wrong that can be corrected at all, and all nature demands is non-interference. Put the body structures into proper alignment; the bones, muscles and ligaments in right relationship to each other; give this wonderful blood and nerve supply a chance to do its intended work and disease is conquered and health restored.

Is it necessary to go farther. Have we not proven that osteopathy is the most rational, sane and safe method of treatment offered to the world?

We might go on ad infinitum with osteopathy's wonderful work in diseases of women; at the bedside of the mother in controlling birth pangs; in the care of the infant; in assisting the feebleness of old age, but it would be a repetition.

In every condition of life osteopathy with its broad common sense, its applied knowledge of anatomy and physiology, its wide experience, offers to the sufferer the most rational help obtainable.



Osteopathy

A BRIEF DISCUSSION
OF ITS PRINCIPLES
AND PRACTICE

OSTEOPATHY

A Brief, General Discussion of the Principles and Practice of this Advanced Science of Healing, with an Explanation of the Mechanical Cause of Diseases and their Cure

SO MUCH mis-information has been given about osteopathy by people who know little or nothing about it, that the following explanation may be of benefit to those interested in the prevention and cure of disease.

Definition: Osteopathy is a system of healing, using manipulation for the purpose of correcting structural or mechanical defects of the spine, or other parts of the body, and thus relieving irritation and pressure upon nerves and blood vessels, and liberating the natural remedial forces within the body. Diet, hygiene, exercise, etc., are also used, but no internal drugs are administered. Briefly, osteopathy means re-adjustment of the human machine.

To better understand this definition we must investigate further.

To begin with, osteopathy was first discovered and built up into a system of therapeutics about thirty-five years ago by Dr. A. T. Still, a medical physician and surgeon of about thirty years' practice and wide experience. The last fifteen years shows a remarkable growth, it having been legally recognized by about forty States of the Union in spite of strong opposition. It has won recognition on its merits alone, and has been supported in court by the testimony of thousands of patients who have been cured or greatly benefited by its treatment after all other methods had failed.

The course of study required to make a doctor of osteopathy (D.O.) is three and four years, during all of which time the human body is studied most thoroughly, and a practical application made of the knowledge of its mechanical structure and vital functions. Everything taught in the medical schools is taught in the osteopathic schools except materia medica, for which is substituted our own principles and practice.

No one, then, either physician or layman, who has not properly studied and practised osteopathy is competent to give an intelligent opinion on the subject, or to say what it can or cannot do, for experience has proven that it is doing an immense amount of good in the matter of curing acute and chronic diseases of all kinds, especially chronic cases that have not obtained the desired relief under other treatment.

A system of healing which has made such rapid, substantial progress in such a comparatively short time must be based upon sound principles. Let us see if it appeals to reason.

The basic principle of osteopathy may be briefly stated as follows: The human body is a vital, self-sustaining machine, depending for its proper functioning upon proper structure, viz.: proper position and relations of all its working parts, and a free and unobstructed flow of blood and nerve force to every organ and tissue of the body. Furthermore, it has the power to manufacture within its own laboratories (from the food, water and air taken in) all the necessary secretions, ferments, chemicals, blood and nerve force in proper proportions to maintain life and health, just so long as the machine is mechanically correct and each part is doing its work properly.

We have compared the body to a machine; it is a wonderfully delicate and complex machine, and, like any other mechanism under work and strain, it is liable to get out of adjustment, and when so it cannot do its work properly. In other words, "perverted structure causes perverted function." The perverted or abnormal structure is the cause of most diseases; the abnormal functions, such as indigestion, pain, etc., are merely symptoms. While other schools are treating mostly symptoms and ignoring import-

ant causes, osteopathy goes behind the symptoms, finds and removes the cause, whereupon the symptoms or effects naturally disappear. A symptom like pain, for example, can be temporarily relieved by such drugs as opiates or narcotics, but the pain will persist in returning again and again until the cause is removed. This accounts for the long-continued suffering of chronic cases, and also accounts for the great success of osteopathy in curing these cases by removing the chronic cause. In fact, the early success and friendly recognition of osteopathy was won through the benefits and cures of old chronic cases, many of which had been pronounced hopeless or incurable by the medical schools.

The body is much more than a mere machine, however, inasmuch as it is vital and self-sustaining, but the mechanical aspect is a factor of great importance that has too long been overlooked; for the vital actions depend upon mechanical integrity.

The ideal condition of health is possible only when there is a normal blood supply and normal nerve supply to every organ and part of the body, for the proper function of every part depends upon these two all-important factors. For instance, if the stomach is not getting a normal circulation of blood, it is weakened from lack of nourishment, its glands cannot properly make gastric juice, the food then is not properly digested, and consequently the whole system suffers.

Realizing that the different glands of the body manufacture all necessary fluids for the bodily needs, osteopathy claims that drugs have no place in the system; that they are foreign elements which the system makes every effort to throw off as soon as possible, but always with more or less damage to delicate tissues and organs, like the kidneys especially, which have to bear the burden of straining out the impurities from the blood.

IT SHOULD not be considered so remarkable that osteopathy cures diseases without the use of drugs. Our wise Creator must have made us very badly indeed if we have to be always "taking something" of doubtful action to improve on nature. We should have more respect for His wisdom and give nature a chance by not complicating matters. In fact, modern medical men admit that drugs do not cure diseases, but merely palliate the symptoms, and they are giving less and less drugs. Prominent medical authorities from time to time make statements which cast much doubt upon the advisability of giving medicines, as, for instance, the famous Dr. Osler, the "Dean of American medicine," says that "sensible doctors have reached the conclusion that typhoid fever is not a disease to be treated with medicine." Dr. Arthur D. Bevan, of Chicago, says: "Drug treatment is useless in cases of pneumonia." Sir Frederick Treves, once physician to the King of England, in a speech at the opening of the London Hospital, said he believed "the time is not far distant when people will leave off the extraordinary habit of taking medicine when they are sick." These and similar statements coming from authorities seem to indicate that drug practice is still upon a doubtful basis.

Advanced doctors do not give medicine at all in many cases, realizing that they only complicate matters. Osteopathy can do this much at least, and can do a great deal more in assisting nature by removing any interference to the action of nature's forces within the body. Nature cures, and always stands ready to cure, when the obstructions to her forces are removed. It is the work of the osteopath to remove such obstructions.

Now let us see how these obstructions may occur and how diseases are caused by mechanical derangements, and how, through manipulation, they are cured by mechanical readjustment which removes pressure from nerves and blood vessels and allows free action of the natural forces.

The spine is a wonderfully clever and complex structure. Commonly called the backbone; it is really

made up of many bones called vertebrae. Twenty-four of these are set one upon the other like a column of blocks.

The spinal column is practically the foundation of the whole body and upon its integrity depends the health and strength of every individual.

If the spine were merely a column of solid, bony blocks, its function would be simplified into merely giving mechanical support to the body. But these blocks are of irregular shapes, hollow in part, and being set upon each other these hollows form a continuous tube or canal which contains that extremely delicate and vitally important structure called the spinal cord. Hence, the spine must not only support the body in erect position, carry the physical burdens and strains of life, allowing perfect freedom of movements in every direction, such as bending, twisting, etc., but through all this it must absolutely protect the sensitive spinal cord and spinal nerves which branch from it, and not subject them to any abnormal pressure or irritation.

This spinal cord is made up of nerve-tissue, viz.: cells and fibres, and is really an extension of the brain substance. In this cord at different levels are important nerve centers whose location and functions have long since been discovered by investigators in anatomy and physiology.

These spinal centers regulate the action of the internal organs, such as heart, stomach, bowels, etc. While under the control of the brain, they are also automatic and do their work voluntarily without any effort on the part of the will. They also regulate the circulation and distribution of blood throughout the body.

The spinal cord may be well compared to a telephone cable containing many bundles of wire which branch off along the line to different districts, and finally connect with the terminal instruments. The spinal nerve centres may be compared to relay stations as they occur along telephone lines. The controlling nerve centres are in the brain, which may be called the dynamo of nervous energy. The energy is carried along nerve fibres (wires) down the cord to the nerve centres (relay stations), where the fibres

branch off and leave the cord as part of a spinal nerve to be distributed to some muscle or internal organ or skin, according to the kind of nerve it may be. There are several different kinds of nerve fibres, named according to their function, such as motor nerves governing motion, sensory nerves governing sensation, secretory nerves governing secretion, and so on. Also the nerves of special sense, as sight, smell, hearing, taste and touch.

There are thirty-one pairs of spinal nerves, each containing many fibres which are given off from the cord and pass out of the spine, through small openings in the complicated joints between the vertebrae; also there are arteries and veins passing in and out through these openings to nourish the fibres, cells and centres in the cord. These openings are thus completely filled.

Now we are beginning to see how the slightest displacement of one or more vertebrae may cause far-reaching disturbance by causing pressure upon spinal nerves, either irritating them and increasing their action, or, if the pressure is severe enough, completely paralyzing them. Most everyone has experienced the sensation of the leg or foot "going to sleep," and when attempting to stand upon that foot has found it completely powerless. This is a form of "pressure paralysis" resulting from pressure upon the sciatic nerve, and illustrates the possible result of pressure upon a nerve.

These displacements of vertebrae are called lesions, and the osteopathic school is the only one which has paid any attention to these defects as causes of disease. Such lesions of the spine also interfere with the free circulation of blood to and from the sensitive nerve centres within the cord, and the importance of the work of these centres demands that they must have a normal supply of nourishing blood. If these centres are not properly nourished their action is feeble, the impulses they send out are impaired and the particular organs which they control become weak and fail to do their work properly.

The failure of the organs to work properly is a symptom or effect of an underlying cause.

NOW we begin to see the advantage of the osteopathic method of reasoning from effect back to cause, and the importance of spinal treatment to remove causes rather than treat symptoms.

The spine, furthermore, is wrapped and banded and braced at every joint with many ligaments, and the whole column held erect and strengthened by several layers of muscles. Through all these ligaments and muscles is woven a network of nerves and blood vessels, which fact brings to light another important point in favor of the mechanical theory of the cause of disease, viz.: that contraction or hardening of the ligaments and deep muscles of the spine causes interference with spinal nerves, and also obstructs circulation to the spinal cord by direct pressure upon the soft blood vessels just as surely as pressure upon a soft rubber tube will affect the flow of fluid through it.

These are some of the reasons why so much attention and so much treatment is given to the spine, for the trained eyes and fingers of the osteopath the human spine is practically a barometer, wherein many signs can be read indicating the patient's condition, and even the advance signs pointing to probable future disorders. This may sound like magic to the uninitiated, but there is no magic in osteopathy. Nature supplies the magic; osteopathy is simply common sense applied to all that is known of advanced anatomy, physiology and pathology.

Another interesting fact that has been touched upon but is not generally known is that the circulation and distribution of blood is under the control of certain nerves. The amount of blood required in different parts of the body at different times varies according to the amount of work being done in that part. We should realize by this time that no part of the body can work properly without a normal supply of blood; for example, the stomach when digesting a meal demands more blood than when at rest, and it always gets an extra supply if the nerve centres are acting and reacting properly; that is, if there is no obstruction to their action. The nerves which thus control the cir.

culation are called the vaso-motor (vessel mover) nerves, and these are governed by vaso-motor centres in the spinal cord and sympathetic nervous system. These centres react according to the stimulation or "messages" received by them from the organs with which they are connected by nerves. These vaso-motor nerves have the power of dilating and contracting the calibre of the blood vessels, and thereby allowing more or less blood to flow through them. Irritation of these vaso-motor nerves disturbs the balance of circulation in the parts controlled by them. Too much blood in a part is congestion or inflammation, and can be seen in the tissues of the throat during tonsilitis or sore throat.

It is generally admitted that osteopathy is "good for the nerves," and so it is excellent for nervous diseases; but why stop there? Since we have learned that the nerves control the circulation we can see how it must be good for the circulation, and further, with the same reasoning, since we know that nerves also control every vital process and action of the body, we can see that osteopathy is good for the whole body. Experience has proven that this is true.

The person who is not familiar with the principles of osteopathy as applied to anatomy and physiology, cannot understand why so much attention should be given to spinal examination and treatment, but the reader should by this time begin to realize that there is close connection between the conditions of the spine and other parts of the body, since the nerves which leave the spine govern practically all the voluntary muscles, and these nerves are also closely connected at the spine with sympathetic nerves, which govern the involuntary action of the internal organs.

The osteopathic physician is the only one who has been properly educated to treat the spine. His trained sense of touch acquired by practice enables him to discover the slightest departure from normal structure. It is an osteopathic axiom that internal disorders are reflected in the spinal condition, and, vice versa, spinal conditions affect distant parts through nerve connections.

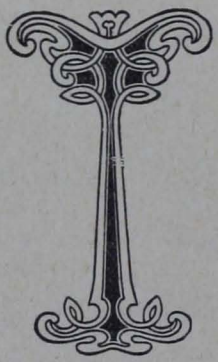
Patients who have suffered for years from some chronic ailment have never imagined that there was anything wrong with their spines and have never attributed their troubles to a mechanical disturbance upsetting nerve action and circulation somewhere. The reason is that they have never been properly examined. On the other hand, there are many who can trace the beginning of their troubles to some spinal or other injury, such as a fall, strain or blow. In many cases of apparently obscure origin, osteopathy uncovers a history of some such injury long forgotten or overlooked. The older schools of medicine have not paid sufficient attention to these conditions, and while they are searching the earth, air and sky for possible causes of disease, osteopathy, by taking a practical point of view, has found within the body itself the actual causes for most of its troubles, and at the same time has found that the body cures itself when those causes are removed. Herein lies the reason for the success of osteopathy. It simplifies disease and puts the healing art upon a practical working basis. This is scientific, for science is always simple and provable.

The body acts and reacts according to fixed laws of nature, and always acts the same under similar conditions, but it is very difficult, if not actually impossible, to tell when two people are in exactly the same physical condition regarding vitality, resistance and sensitiveness; therefore, the action of drugs is uncertain and the giving of them is largely experimental, because of these different conditions.

Take, for example, a case of simple neuralgia, which furnishes a fair comparison between osteopathic and medical methods of diagnosis and treatment. Osteopathy finds that neuralgia (nerve pain) is nearly always due to pressure upon the nerve at some point in its course, and usually near the spine, so instead of treating the whole system chemically to stop a purely local pain, it locates the pressure, and removes it mechanically, whereupon the nerve has no further cause for complaint.

Many cases called rheumatism are found, upon closer examination, to be neuralgia. This is especially

true or sciatica, which is often mistakenly called sciatic "rheumatism," when in reality it is a neuralgia caused by pressure upon the fibers or tissues of the sciatic nerve by contractions or deep muscles of the lower spine, due to strain or exposure, or else a lesion of the vertebrae or the bones of the pelvis.



IT IS not necessary that a patient should feel a pain in his back in order to become aware that there is something wrong there, for, according to a well-known law in nervous physiology, painful pressure of a nerve trunk is felt at the distant end of the nerve more than at the point of pressure, because the terminals are more sensitive. If a motor nerve is affected, it will cause either excessive action or paralysis of the muscles under its control. If it is a vaso-motor nerve, it will disturb the circulation.

Now, let us see how and why it is that the spine and other parts of the bony framework so often get out of mechanical order. The reason is this: The wear and tear of living, the strains, falls, jars, sudden wrenches and sprains to which the spine of man is subjected from infancy to old age are some of the causes of its derangement. Faulty positions in sitting and standing, especially in children, weaken the lower spine, and this weaknes the internal organs and predisposes to intestinal troubles, etc., and in girls or young women to pelvic troubles, which can and should be prevented by spinal treatment before surgical operation becomes necessary.

Exposure to cold and chilling of the back results in contraction of spinal muscles, which, if not relieved, will, by their continual unequal pull, draw certain vertebrae out of line, just as surely as a small piece of rubber between the teeth will, by its continual pressure, separate those apparently immovable teeth.

Repeated colds weaken the spinal centres governing the vitality of the lungs, and thus predisposes to further colds or worse conditions.

Continued mental tension from worry, sorrow, overwork, or over-study, results in spinal tension, beginning under the base of the brain and extending down the spine until enough irritation is developed to sap the patient's vitality and result in complete nerve exhaustion or neurasthenia. Spinal irritation is not an uncommon cause of insanity.

There are other causes of disease, of course, but these mechanical or structural conditions are sufficiently numerous and important to account for most of bodily ills which osteopathy is daily relieving and curing.

These mechanical defects may be only slight, and can only be discovered by properly trained hands and mind. They need not be such gross lesions as a dislocated or broken back, nor a severe spinal curvature. Between these extremes there are a hundred or more lesser degrees of disturbance which cause functional or organic disease just as do the extreme conditions, though more insidiously.

Realizing that these mechanical defects cause disease, we can better understand how their correction becomes a purely mechanical proposition. Chemicals cannot do it; vibration or electricity cannot do it.

Osteopathy uses scientific manipulations to readjust the bodily structures. Manipulate means "to operate with the hands;" manipulation means "a manual operation" (Webster). So, osteopathy is not massage, no more than is the manipulations employed to set a fracture or dislocation. Any critic, therefore, who attempts to belittle osteopathy by calling it massage simply shows his lack of understanding of the subject.

The effort of surgery is to correct structural defects. Osteopathy includes surgery, and calls it to aid when absolutely necessary, but it has saved many cases from the necessity of the knife.

The reader should by now realize that osteopathy is not a narrow system of treatment, "only good for a few things," or "only good for the bones," as he has so often been told, but a broad system of therapeutics capable of treating the general run of human ills, whether functional or organic, acute or chronic, with remarkable results, because it is based upon the fundamental principles underlying the life and health of the body. It is applied anatomy, physiology and common sense.

On the other hand, osteopathy does not and never did claim to cure everything. But it can safely be said that it is good for everything, for it is hard to find a state of disease in which an improved circulation and nerve action is not beneficial.

One reason why osteopathy does not completely cure some cases is that many patients try it only as a last resort when all other methods have failed. Another reason is that some people are not reasonably patient enough to give it a fair trial, even though they have been ill for years.

The fact that osteopathy may not cure a particular case does not disprove the truth of its principles. Medicine fails to cure time and time again, yet people do not blame, but still cling to it with a tenacity born of faith and superstition engrafted upon the race for ages past until it has become a habit.

To sum up, the following statements will serve to bring out the essential points of osteopathy:

First: The healthy action of every part of the body depends upon a normal blood and nerve supply.

Second: Exposure, injuries, strains, over-work, functional abuses, etc., cause greater or less mechanical derangement of the framework of the body.

Third: These defects, by disturbing nerves and blood vessels, cause improper action of certain other parts.

Fourth: Osteopathy, by manipulation, corrects these mechanical defects, relieves the interference with nerves and blood, and thus liberates the natural sustaining forces of the body, so that normal action is restored and disease disappears.

Fifth: Through the medium of the nerves and their general control of the body, osteopathy is able to affect every part.

Strong vitality and resistance to disease is a matter of strong circulation and nerve action. Osteopathy accepts the theory that germs are only the exciting cause of diseases, and that before they can become

active in the body there must be a predisposing cause in the form of lowered vitality and resistance. In treating these cases the effort is to build up the vitality to the point where it can overcome germs. The factors which affect vitality have been explained above.

So much for the principles of osteopathy, which are being put into daily practice by five thousand practitioners throughout the land, and are being relied upon by thousands of families to keep them in health or restore them to health. The osteopath is rapidly becoming the family physician, treating acute as well as chronic ailments.

WISE parents are having their children regularly examined from the new point of view, and treated when necessary to guide and strengthen their spines, and prevent any development of organic weakness. The falls of infancy and rough play of childhood subject the growing spine to many a wrench or slip, which sows the seed of future troubles. Children respond wonderfully to osteopathic treatment and take to it nicely. During acute illness the severity of their symptoms can be greatly lessened and the danger of complications reduced to a minimum, so that they make a quicker and better recovery without any contamination of their delicate systems by drugging. This is also true of older patients who usually make a cleaner recovery from such serious conditions as grippe, pneumonia or typhoid fever, instead of dragging around half sick for months as many do after the old method of treatment.

Wise men who have for years been under the mental and physical strain of modern high pressure business are taking treatment to relieve the tension and prevent a too early breakdown or forced retirement. Wise women who find themselves becoming nervous, sleepless and dyspeptic are seeking the same relief in time to prevent complete collapse.

All ages are treated, from tender infancy to infirm old age. There is no exposure, and nothing indelicate or rough about the treatment.

It is impossible to thoroughly cover so vast a subject in a short article, or to name every particular condition treated, but, as has been stated, osteopathy is a general system of treatment covering nearly the whole list of acute and chronic ills. Early treatment, of course, produces better and quicker results than late treatment, but no case should be considered hopeless or incurable until a thorough and persistent trial of this system has been made at the hands of a regular osteopath. In fact, any disease in which circulation or nerve action is disturbed, is amenable to improvement under osteopathic treatment, and all diseases present one or both of these conditions. For, as Dr. Still tersely states the proposition: "The rule

or the artery must be absolute, universal and unobstructed, or disease will be the result. A disturbed artery marks the period to an hour and minute when disease begins to sow its seed of destruction in the human body."

All honor then to Dr. A. T. Still, the venerable founder of osteopathy, who by sound judgment, untiring efforts and patient struggle through many years, at last presented to the world a rational system of treatment for the prevention and cure of disease. Opposition, ridicule and ignorance, could not destroy the truths that Dr. Still preached and practiced and taught to those who would listen. The time is not far distant when the full value of Dr. Still's work, as it affects this and future generations, will be realized, and then his name will go down in history as one of the greatest benefactors of the human race.

Osteopathy

"THE QUESTION IS NOT WHETHER A DOCTRINE IS BEAUTIFUL, BUT WHETHER IT IS TRUE"

Osteopathy

Paper read by Walter Anson Merkley, A.B., D.O., before the Rainy Day Club of New York, at the Hotel Astor

Madam President, Ladies of the Rainy Day Club and Invited Guests:

I DO NOT appear before you this afternoon to tell you any story regarding myself or my work. Like Canning's Organ Grinder, I have no story to tell. It does not come within the scope of this paper to say anything detrimental to any of the older schools of the healing art. Nothing is gained for humanity by the decrying of what others are conscientiously trying to do. On the contrary, I firmly believe that mankind will be best served if we seek out the best that can be found in all schools or cults, regardless of origin or name, and apply the method most reasonably indicated. So far from ridiculing the older schools, I realize that we as osteopaths are greatly indebted to them for much of the scientific knowl-

edge which we have inherited from them. Almost all that we know of anatomy, pathology, surgery and other subjects in common to all schools of medicine, we have learned from the men of these schools. Many valuable facts have been given to the world by the physicians of the older schools, yet, while recognizing all that they have accomplished, *"we feel that we can address them in the lines of Hamlet to Horatio, viz.: 'There are more things in heaven and earth than are dreamt of in your philosophy.'" They have taught us all that we know of structural anatomy, but we have discovered much in addition regarding the application of the mechanical principles found in structural anatomy. They have taught us all that we know of pathological conditions, but we have discovered much that they have overlooked regarding the causes of these conditions. They have taught us all that we know of surgery, and we claim to have made no improvement in surgical methods, but we have demonstrated that a very large percentage of the cases, usually considered surgical, can be treated successfully without the aid of the knife.

In regard to the name selected for this science, we offer no apology. It was first used by the discoverer and has been accepted by the profession as a whole. It is almost impossible to express in one word all that is embraced in any system of treatment. For instance, Allopathy is derived from two Greek words; Allos, meaning other, and Pathos, meaning suffering. Homeo-

* J. M. Littlejohn

pathy is derived from the Greek words; Homoios, meaning like, and Pathos, suffering. Osteopathy is derived from Osteon, a bone, and Pathos, suffering. Not one of these names fully describes the science represented by it, so we simply take it as a name. The term originated in the mind of the discoverer because in his early investigations, he found that the slight misplacement of bones caused pressure upon other structures of the body, thereby causing disease, and that the bones could be used as levers to remove pressure from nerves and blood vessels, thus allowing the natural forces of the body to have free scope in carrying on the vital processes. So much for the name.

Osteopathy was discovered in 1874 by Dr. Andrew Taylor Still, an old school physician who had served in the Civil War as an army surgeon. I need say very little about him in this paper, except that like all other great men of history, he has been considered by his contemporaries queer, and like other great men, has met with ridicule and persecution, until eventually the world has recognized the truth of his philosophy.

And now, regarding Osteopathy itself:* "Osteopathy starts out with the initial idea that has been entirely overlooked by the older schools of healing; namely, the self-sufficiency of the organism without the help of any extraneous substances." The osteopath claims that in the construction of the human organism, the Supreme Architect of the universe has made a perfect

* J. M. Littlejohn

machine and endowed it with a vital principle which we call life, a principle that the human mind has been unable to explain or to understand. It is the great unknown feature of our existence. If this machine be kept in proper adjustment, it ought to run from childhood to old age in a condition which we call health.

THIS machine has for its foundation a bony skeletal framework, composed of about 200 bones held together and in position directly by ligamentous bands. Built upon this framework and attached in a manner best adapted for the movements of the body are muscles numbering over 300. These muscles form what we understand as the fleshy parts of the body. These are covered by more or less of fascia, fat,etc., and the whole is enveloped by a substance which we all understand as skin. Ramifying throughout the body there is a great system of arteries, veins and lymphatic vessels. These correspond to the water works and sewage of our great cities. They radiate to and converge from the remotest parts of the body, carrying nutrition to every cell in the body and picking up the waste matter which they carry to the organs that are constructed for the purpose of taking care of it. They pass around and between and into the bones; they pass between and pierce through the muscles and other tissues of the body. In fact, there is not a point that is not reached that requires nutrition, and there is not a part of the body that is not absolutely dependent on these great thoroughfares for its daily food supply. Let one of these vessels be obstructed for even a short time and there is lack of nutrition to the part fed by it. The part becomes weakened and is at once in a receptive condi-

tion for colds, germs, etc. Within the body cavity are many organs differentiated for the purpose of performing different functions with which you are all more or less familiar. These are the lungs, heart, liver, kidneys, stomach, spleen, lymphatic glands, etc. It is upon the proper working of these various organs that life and health depends.

And now I mention the greatest of all, viz.: The nervous system. I say "greatest" because it is the master tissue of the body. It controls every other part of the body. It controls the activity of the heart; it controls the circulation of the blood; it controls the functional activity of every organ in the body; it exercises what we call a trophic influence on every cell in the human organism.

I will explain just what I mean by the term "trophic." Assuming, for the sake of argument that the heart could work independently of the nervous system, which it cannot; assuming that the blood could absorb the digested food and could carry the nutritive elements to the very spot where they were required for the building up of the tissues of the body, the body would die of starvation. There is no such thing as nutrition until the elements of nutrition have been taken from the blood and assimilated by the cell, and it requires the subtle, selective, assimilating and vitalizing power of the nerves to bring about this change. That is to say, the cells cannot select and assimilate the elements

of nutrition except under the influence of the nervous system. This influence we call the trophic influence of the nervous system. Again, were it not for this selective power of the nerves, we as a race would long ago have been extinct, for the reason that very few of us know the constituent parts of the food we eat. Neither do we know the exact requirements nor the exact quantities which we should eat; and if we did know, we do not have the time or facilities to separate and weigh, so we eat what we find to be palatable, and after it is taken into the stomach, the trophic activity of the nerves enables the body to select the substances required and to reject the rest. Were this not true we would all die of food poisoning.

There is another reason why we speak of the nervous system as the greatest of all; viz.: Because, in some way not understood by myself, and I know not whether psychologists have solved the question, the great mental processes are directly associated with the nervous system. We would be taking a very narrow view of this subject were we to overlook the great factor, the mind, in conditions of health and disease. There is no doubt that while the physical causes of disease are most prevalent, there are also mental causes of disease which must be considered, and the physician is either ignorant or unworthy who fails to recognize both the physical and mental causes of disease.

We shall now refer to the chemical processes of the body. Those of you who have had any experience in any ordinary high school work, or in manufacturing establishments of any kind are more or less familiar with the chemical laboratory. It is there that we take substances and analyze them to find out their constituent elements. This we call analysis. We also take simple substances and by combining them produce compound substances. This we call synthesis. We also may take several more or less complicated substances and by chemical processes convert them into something different from any with which we started. Now the human body is the most wonderful chemical laboratory in the world.

OUT of the raw material taken into it in the form of food, air and water, there is manufactured the greatest variety of new compounds suitable for the use of the body organism, acids, alkalis, salts, all fluids necessary to dissolve and carry away the waste products of the body. Every moment of our lives the most wonderful chemical changes are taking place within the body, analysis and synthesis, upbuilding and tearing down, nutrition and waste. These are the changes that keep the organism in a condition of health. The substances thus formed are carried to every part of the body, and, under the trophic influence of the nerves, are selected from the blood stream and assimilated by the individual cells. This process of upbuilding we call anabolism. The reverse process; that is, the tearing down and carrying away of waste material we call catabolism, and the two processes, the upbuilding and the tearing down, we call metabolism; all these metabolic processes are carried on under the direct influence and guidance of the nervous system. There is within the organism a complete play of opposing forces. There are the flexor muscles and the extensor muscles. There is the upbuilding process; there is the tearing down process. There is the fresh nutritive supply carried through the arteries; opposing this there is the carrying away of the waste

matter through the veins. There is the ingestion or taking in of food and the excretion or the carrying away of the waste, and it is the balance of these opposing forces that means health. When one predominates over the other, there is lack of balance and a condition conducive of disease.

Having stated the initial principle of our science, viz.: "The self sufficiency of the organism," and having stated how that self sufficiency is maintained, viz.: by the great chemical manufacturing processes that are constantly going on within the body; having stated how these manufactured products are carried to the various parts of the body through the great system of blood vessels and how the waste products are carried away, having stated that no nutritive changes can take place without the trophic influence of the nerves, having stated the absolute command that the nervous system has over every detail of the many changes that take place within the body at each moment of our earthly existence, I think that I can explain in a very few words the position of the osteopath. He looks upon the body as a machinist looks upon a machine. If every part of the machine is in alignment and all the bearings properly adjusted, it ought to run smoothly until worn out through use. Likewise the human body ought to be in a condition of health if every bone, muscle, ligament and other tissue is in proper position.

Supposing that a bone is slightly misplaced so as to impinge upon a nerve or a blood vessel, what is the result? The trophic influence of that nerve is impaired, the blood supply to that part is materially lessened, and, consequently, there is lack of nutrition. Supposing a muscle becomes contracted, the nerves and blood vessels which pass through or under it become impinged upon and they cannot perform their proper function. The result is lack of nutrition and weakness. When thus debilitated, the tissues become the easy prey of disease germs, etc. What now is the rational treatment for one who believes in the self sufficiency of the organism? Is it not to remove the obstruction to the nerve force and the blood stream and let the natural forces of the body rebuild and repair the diseased part? In other words, it is the duty of the osteopath to seek out the obstruction and remove it. Adjustment is his work, only nature cures. And we believe that the most rational system of treating diseases of the body is the one that helps nature to work to the best possible advantage.

Osteopathy differs from all other systems of healing in seeking out the primary causes of disease. For instance, the older schools tell us that typhoid fever is caused by a germ called the bacillus typhosus; that consumption is caused by a germ called bacillus tuberculosus, that diphtheria is caused by the klebs-loeffler bacillus, etc. Now it has been demonstrated

that disease germs cannot live and propagate their species in a healthy tissue, and that a freely circulating blood is the best germicide in the world —not only a germicide but a tissue builder, and the only compound in existence which is both a germicide and a tissue builder. Accepting all this as true, we reason that the cause of the disease is not the germ so much as it is whatever allowed the tissues of the body to become so debilitated that germs can thrive in them. Here osteopathy makes the claim that in most instances structural derangements have obstructed the natural forces of the body, thereby shutting off nutrition; and after all is said and done, the main factor in the life processes and in the healing of disease is nutrition. The older schools have spent much time and conscientious labor in trying to find out the action of drugs on the tissues of the body. Enormous laboratories have been erected for this purpose, not recognizing the fact that "the chemicals of life lie hidden in the laboratory of the human body" and we claim and can demonstrate that these are self sufficient.

IT has been correctly said that we treat the spine for most diseases, and we will now proceed to show you the reasonableness of our position. Understand me, I do not say that all diseases are of spinal origin; I say a very large percentage. An examination of the nervous system and spinal column will show you the very close and intimate association of these two. The spinal cord passes from the brain down through vertebral column, giving off at each vertebra a pair of nerves, one on each side. These individual nerves separate themselves from the spinal cord and emerge through foramina or openings at each side of each section of the spinal column. On account of the enormous work and tension that the spinal column is called upon to endure, we find that there are many deviations from the normal position at this part of the body. Inasmuch as the nerves which control all the parts of the body emerge from the spine somewhere between the atlas and coccyx, cranial nerves excepted, we find that in a large percentage of cases the nerve is impinged upon or interfered with at the point where it emerges from the spine.

The great sympathetic nervous system, which controls the involuntary movements and processes of the body, is connected directly with the nerves which emerge from the spine at their point of emergence. Thus it is that

most diseases have their primary causes at the point where there is the greatest liability to pressure upon the nervous system. As osteopaths we have demonstrated that by removing this primary cause, nature is able to reassert herself and restore the condition to normal.

WHY OSTEOPATHY

Mrs. MYRA PROGRESS Explains Osteopathy
To Mrs. DOROTHEA CONSERVATISM.

Why Osteopathy?

MRS. Myra Progress and Mrs. Dorothea Conservatism are talking over the telephone. Mrs. Progress has tested the merits of osteopathy. Mrs. Conservatism has heard of wonderful cures and would no doubt test its merits also, were she not afraid of what Dr. Blunderbuss might say about it.

"But, Myra, why osteopathy? Why should I change my doctor whom I have employed for fifteen years—ever since my first baby was born—for a doctor of another pathy, one whom I know nothing about?"

"You are overloaded with prejudice, Dora."

"But, Myra, why osteopathy, anyway?"

"Because it will cure your fifteen-years-old troubles."

"Oh, those troubles! Well, they never will be cured. Dr. B. says so; and that being the case, I never expect to be rid of them."

"But, Dora, how does either of you know that those troubles are incurable?"

"After fifteen years! Would you have me believe in miracles?"

"Well then Dora, why, in heaven's name, do you consult Dr. B. so regularly?"

"Oh! only because he helps me to be comfortable. I must have his medicines. I could not live without his tonics, pills, plasters, and other things. You know, I have had frightful headaches ever since the birth of my first child."

"You wouldn't have them after a good stiff dose of osteopathy, Dora. You do not need medicine."

"Get along without Dr. B.'s medicine? Never! Not for all the rubbing and massage if it were to be had for nothing. No, my dear, I am not yet converted to osteopathy, or any other pathy."

"But, Dora, listen! The drug doctors make their patients comfortable when they do not know what to do for their diseases. When you are comfortable under the influence of medicine you are neither sick nor well—you are what's worse, too well to be in bed and not well enough to be of any service to yourself or anybody else. You are a semi-invalid, which is another way of spelling a good-for-nothing."

"I wish I had your unclouded faith, Myra."

"When you really want to be a normal, healthy woman you will have sufficient faith to remove mountains. You don't object to being well, do you, Dora?"

"No, I want everything that is reasonable; but Dr. B. says (and he ought to know as much as we) that I can not be any better until I go through a surgical operation.

"Nonsense, Dora! Don't you know that a large majority of so-called surgical operations are made unnecessary through osteopathy? Don't believe all Dr. B. tells you; and do not submit to an operation until an osteopath says one is necessary. I wish you would have faith enough in Nature, Dora, not to believe everything those drug doctors say. Here you have been tipping their medicine bottles for fifteen years. You have been making careful teaspoon measurements of their abominable, nauseating, poisonous concoctions for all that time. You seem to be resigned to do the same for fifteen years more. Heavens! What a prospect, Dora! You seem to be honeycombed with the dry rot of contentment. Come! Rouse yourself! Stir up enough discontent in your own mind to want the best there is. At least you can investigate, can't you? Can't you have faith enough in the progress

of human knowledge to consult our local osteopath, Dr. Makewell? Why do you refuse to talk with him, Dora?"

"Dr. B. says I ought not to even think of the word osteopathy, Myra. He says that it is nothing but skilful massage generously mixed with mind cure; that the osteopaths are the biggest fakirs now loose over the earth."

"Well, then, Dora, give me the osteopathic fakir every time. I believe in osteopathy because it is logical and rational; because the osteopaths can give logical reasons and state reasonable causes for disease; because it works with Nature for a cure rather than making a patient comfortable in a state of good-for-nothingness; because, best of all, it has robbed me of the terrors of childbirth. I have given birth to the finest baby boy ever seen and without the slightest trouble; no such troubles as you have carried for fifteen years. Dr. B. doesn't know what he is talking about when he calls osteopathy a fake."

"But, Myra, it is nonsense isn't it? Come now, you do not believe in it seriously ?"

"Dora, I have taken the last drop from a medicine bottle and the last pill that I ever expect to. Also I have made the last plaster of mustard, red pepper, or any other stuff for myself; or for John when he has lumbago. In the future I expect to pay my money to the doctor who cures without asking me to turn myself into a veritable drug store."

"Well, Dora, you don't mean to say that Dr. M. can cure lumbago by osteopathy?"

"Yes, he set John's last rib when slightly pulled out of place. This displacement, so he says, causes pressure upon the nerves and pain in John's back. It is all done in ten minutes and John goes to work the next day. Dr. M. charges two dollars for setting the rib and John saves three or four days salary besides the larger bill which would result from the medical doctor's services, the cost of an Alcock's plaster, a bottle of liniment, and my time as a nurse. Oh! Dora, osteopathy is so simple and rational in its methods that it makes Drugopathy seem like

the gigantic humbug that it is. A consultation with Dr. M. will cost you nothing. Why don't you go and see him?"

"I don't know why, exactly; but, at any rate, what if Dr. B. should tell me not to?"

"Why should you consult Dr. B. at all, Dora? Don't let him hypnotize you. Assert your own independence. You are not under any obligations to him, are you?"

"Not in the slightest degree, but—but, somehow—well, Myra, I know Dr. B. and I don't know Dr. M.

"You are afraid of public opinion, Dora. You are allowing the ghosts of prejudice to paralyze your common sense. It is keeping you out of the right way to better health and happiness. Is such thought rational, Dora? Is it wise? Is it right for you to defraud yourself out of the health you should and can have? Are you a true benefactor to yourself, your family, your friends, and society? —a true respecter of the rights of osteopathy, the greatest life-saver, the greatest happiness-saver that has yet been given to the human race?—are you true to the still small voice of your own conscience?—so long as you refuse, through fear of what might be said, to turn your face toward the light of truth—to open your eyes—to see!

Are you afraid you will not be taking orthodox treatment?—that you will not die in the arms of orthodox, conservative medicine?

"ON the other hand, are you willing to have your friends read in your obituary—'The operation was successful, but she died'? What on earth do you care for radical or conservative methods of cure, one or the other? You are after HEALTH! That is what you want, isn't it? Isn't that so, Dora?"

"Yes, Myra, and, after that eloquent plea I am resolved to hunt for it, too. I WILL talk to Dr. Makewell tomorrow, or Monday at the latest. In the meantime, I want to read some of your osteopathic books, those pamphlets I have seen you read. I must know a little about this subject before I meet Dr. M."

"Whatever I have I will gladly lend you, for I want to see you a well woman, Dora. Health is everything, you know."

"Yes, Myra."

And so their conversation ended.

True to her word, Mrs. Conservatism called upon Mrs. Progress and received several attractive booklets, popularly known as educational osteopathic literature. Mrs. Progress placed them in her hands and said, imperatively, "Now, Dora, mind what I am telling you. Don't say one word about this to Dr. B."

"Why?"

"Because, if you do, he will talk you out of it."

"Why, Myra! What a dreadful opinion you have of Dr. B."

"I only know what anyone with two eyes can see, said Myra. I know better than to ask a Presbyterian minister if the Methodists are the proper denomination for me to join. I know that experience says, 'do not show anything new to a medical man which has not been sanctioned by the school to which he belongs and the creed that he is pledged to.' "

"Well, then, Myra, my lips are sealed, good-bye."

During the next few days Mrs. Conservatism read "Osteopathy and Woman", "The Osteopath and the Liver", "Osteopathy, A Preventive of Disease", "Osteopathy, A Rational Method of Treatment", "Osteopathy, A Brief Discussion of its Principles and Practice", and "Osteopathy, The Question Is Not Whether a Doctrine is Beautiful, But Whether It Is True".

All the booklets were so fascinatingly and convincingly written that everything was read from cover to cover. One article, a short sketch on the history of osteopathy and the life of Dr. Andrew Taylor Still, the "Grand Old Man", as he is called by those who have received an increase of health through his wonderful discoveries, so filled her with admiration that she could not withstand the desire to know more about the man and his wonderful lifework.

A woman's curiosity and her years of suffering compelled Mrs. Conservatism to investigate the merits of the drugless system of healing, and accordingly she made Dr. M. a visit, expecting to ask him many questions which her reading had suggested.

"This is Dr. Makewell?"

"Yes, Madam", was his response.

"I have been reading some osteopathic literature and I wish to ask you to explain points I am in doubt about. Is such a request too presumptuous?"

"Not at all. Osteopaths are always glad to help people get a better understanding of our science."

"Osteopathy is something new, is it not?"

"Oh, no, indeed!" said Dr. M. "Dr. Still is now about 84 years of age, a hale and hearty old man whom all his children (I mean the profession) hope will live to be a hundred. His is one of the few instances in the history of great discoveries where a man lives to witness the revolutionary changes due to his visions of new truth. As for the age of the system of healing which he founded, Dr. Still says that the germinal thought, out of which it

has grown, came to him in June, 1874. So, you see, osteopathy is nearly forty years old."

"But", she asked, "Dr. Still has not taught it for forty years, has he?"

"Oh, no", replied Dr. M. "He began to teach it about the year 1892, and the first and largest school of its kind in the world he founded, in 1893 at Kirksville, Mo., where it still is and where he continues to reside. Dr. Still's school has conferred the degree of Dr. of osteopathy upon over three thousand five hundred graduates."

"Is his the only college of osteopathy?"

"No, there are now (1912) eight recognized reputable osteopathic colleges in the United States."

"Are the courses of these schools as thorough as those of the medical colleges?" was then asked.

"All the schools recognized by the American Osteopathic Association must give courses extending over a period of three years of nine months each. This is the minimum requirement. The Philadelphia College of Osteopathy has recently lengthened its courses to four years of eight months each, or thirty-two months total. The minimum requirement demanded by the American Medical Association is four years of six months each, or twenty-four months total. The prejudice which has been fostered by the medical men who bitterly oppose osteopathy on the grounds of poor osteopathic training is being overcome by making the osteopathic training as thorough as the training given in any of the medical colleges—and more so than many."

"How about the state boards of medical examiners? Do the osteopaths pass creditable examinations?"

"Yes indeed! There are some states like Colorado and Massachusetts which allow us to take the board examinations under the same conditions as those required of the graduates of regular medical colleges. A great many of the state legislatures have granted us our own independent board of examiners. In all the states the percentage of osteopaths who pass the board examina-

tions is larger than that of the successful medical applicants."

"How many states have legally protected osteopathy?"

"Osteopathy has been recognized and legalized in about forty states, and is practiced under favorable court decisions in all the other states."

"How many practitioners have the eight osteopathic schools graduated?"

"About six thousand", replied the doctor.

"These constitute the recognized, reputed number of osteopathic physicians?"

"Yes", he said.

"But, doctor, what is osteopathy, anyway? Has it any scientific basis?"

"Most certainly it has, Mrs. Conservatism. It is so scientific that many other known sciences are needed for the best comprehension of its philosophy and a demonstration of its principles."

"EXPLAIN this philosophy, doctor, and what are those principles?"

"The philosophy of osteopathy might be given in one word,—Freedom. The freedom of the parts of a thing determines the freedom of the whole. The freedom of the whole under the dominion of law determines the purpose of the whole. The freedom of the parts under the dominion of law determines the functions of those parts. To understand the freedom which should exist between the parts of the human body, a very minute study of anatomy is necessary. To understand the freedom of those parts under the dominion of law, an exhaustive study of physiology is required. Anatomy is the study of structures, tissues, and organs, and their relation of each other. Physiology is the study of the functions or use of those parts. The natural forces which operate and regulate these structures and organs for the purposes or ends in view Dr. Still discovered were the same, so far as the body is concerned, as those which operate and regulate a delicate machine. This puts the human body on a mechanical basis. The human body is regarded by us as a machine which is put together, operated, and regulated according to the most complex physical and mechanical laws known. In the highest sense, then, the osteopath is a skilled mechanic. The skilful mechanic would not attempt to repair, operate, and regulate a machine without a full knowledge regarding every part of it. For the same reason the skilful osteopath must be acquainted with the structure, position, condition, and relations of every part of the most complex and marvelous of all mechanisms, the human body. Osteopathy is always seeking the freedom of structures and the normal operations of functions. The working principles of osteopathy are based upon a knowledge of the structures or composition of the human body and the relations existing between them as studied in anatomy; and also a knowledge of the laws governing

those structures, resulting in what we call functions as revealed by the study of physiology. Structure and function are the basic principles which determine an osteopath's work. The osteopath is constantly endeavoring to establish the correct relations between structure and functions."

"Is that his reason for studying anatomy and physiology so thoroughly?" asked Mrs. C.

"Yes. But as structure is a larger and, in many respects, more important factor in determining the character of all functions, the osteopath is always endeavoring to adjust the relations between the different structures of the body. Normal relations between the structures determine normal functions, and normal functions constitute health. Therefore, the basic working principle in osteopathic practice is ADJUSTMENT. Osteopathy is summed up entirely in two words—FREEDOM and ADJUSTMENT. To be able to free and adjust the different parts of the human body, the most complex and wonderful of all created things, requires a knowledge of a majority of all the known sciences, as I have said."

"I think you have made your thought very plain," she said. "But how did Dr. Still learn the sciences you speak of? Did he attend a medical school?"

"Yes, he took a medical course and served as a surgeon in the Civil War. But he did not find the philosophy and principles of osteopathy in that medical school."

"Where did he learn them?" she queried.

"Sitting at the feet of Dame Nature in the largest of all colleges, the field of human observation and experience. He doubted the then accepted philosophy of drug administration, and, becoming dissatisfied with medical theory as he understood it, he put his questions so persistently to Dame Nature that she lead him to an undiscovered country of great truth. He found a better way of applying the known mechanical principles to the operation, regulation, and repair of the human body. He tried

to discover how Nature does things; and he hunted for her methods until he did discover them."

"I should like to know just how Nature unfolded her secrets to him", said Mrs. C.

"The thought came to him that if a perfectly regular and unimpeded flow of blood, lymph, and nerve forces were maintained in the body so that every cell in it could receive its nutrition and be relieved of its old, worn out material as designed by Nature, then every human being should live his allotted years in health, happiness, and usefulness. This he considered an axiomatic truth that no reasonable person would deny. He conceived the idea that the body is a machine built according to mechanical principles. This being true, the all-intelligent Supreme Mechanic would not, could not, put together such a grand piece of machinery and leave out of it those particular parts or organs which manufacture the materials necessary for automatic self-regulation, self-operative, self-restorative functions. He said that Nature has put a chemical laboratory in the human body sufficient for all purposes in health and reliable in all conditions of disease and emergencies of accident. There is no need, therefore, for the drug laboratory of man. If the methods of Nature are exact, it is presumptuous for man to endeavor to improve them.

"Dr. Still established his first axiom by reasoning, further, that if health depends upon a free and normal flow of blood, lymph, and nerve forces in every part of the body, then disease must be the result of a disturbance in the flow of these forces. Disturbances in the flow of these life forces mean disturbance in the structures of the body, because the blood and lymph feed the structures and the nerves keep the blood and lymph in motion so that the structures can be properly fed. Disturbed structures mean disturbed organs. Deranged organs cause disturbed functions in those organs. Disturbed functions indicate an abnormal manufacture of the physiological substances which Nature has intended should be made in

exactly the right amount and distributed over the body in exactly the proper quantities necessary to keep the body in a condition of normal functions, or 'health.' When these natural drugs are less in amount than is required for normal functioning of all parts of the body, then the parts or organs are out of their proper relations with each other and every function is changed. The body becomes abnormal, diseased, out of order; or as you would say, sick."

"I see it all now", said Mrs. C., "and how simple! When the structures and organs of the body are rightly related, each one with the others, there must be a normal functioning of those organs; and when structure and function are rightly related, the body makes only those natural drugs which are necessary for the maintenance of those relations and functions. When these conditions exist there can be no need for external agencies—the drugs made by man. What a sublime bit of reasoning! And I have swallowed a whole drug factory—I know I have—during these last fifteen years!"

"In this particular form of intemperance you are not without plenty of company", replied Dr. M., laughing. ¶"And, Doctor, when you speak of adjustment, you refer to keeping all parts of the body rightly related in health and to restoring those parts to those right relations when found to be out of place."

"YES, Mrs. Conservatism, and we give a great deal of attention to the more rigid and hard structures of the body, such as the skeleton, because, when bones are found to be turned, twisted, separated, or torn from their normal places, they encroach upon the premises and liberties of the softer, more yielding tissues and disturb their functions."

"Oh, yes! that is why, when the bones of the spine are not in perfect alignment, the spinal cord is so much disturbed. You place a great deal of stress on the spinal cord itself because of the nerves, do you not?"

"Yes, Mrs. Conservatism, the spine is important because it is very movable and the bones composing it so easily get out of perfect alignment. There are thirty-one bony sections in the spine and thirty-one pairs of nerves come out from the spinal cord through the little holes between these sections. When these sections called vertebrae are in their proper places, so that no pressure is made upon these nerves, there is no trouble with the functions of the nerves themselves. But let there be a twist, slip, or slight dislocation of these bones, and there will be pressure upon the neighboring tissues, resulting in pain, soreness, inflammation, and disturbed functions of the organs to which the nerves go."

"I see, Doctor. I suppose you would say that the sore spots in my back indicate that something has gone wrong?"

"Yes, I would; because a normal back is never lame and sore continuously. Tender spots are a very great assistance when we diagnose disease conditions. They help us to locate specifically the exact parts of a patient's body which are sick, weak, and diseased."

"I see. The spot is sore because a bone is out of alignment. The bone impinges nerves and irritates them; but how does that cause disease?"

"The nerve passes from a little nerve cell in the spinal cord to the muscles and organs which it is to stimulate to

work. The nerve cell is the storage battery which generates vital energy. The nerve carries this energy to the part of the body where the work is needed. If the nerve makes the organ work, then, provided there is a disturbance of the nerve there will be a disturbance in the work or function of the organ also. A disturbed organ is a sick one. I will suggest a case—dyspepsia. This trouble is caused because of a disturbance in the organ which makes gastric juice—the stomach. We will consider that form of dyspepsia in which too small an amount of gastric juice is made. The nerves which compel the stomach to manufacture gastric juice come from the spinal cord between the shoulders. We look for the spinal disturbance in this region of the spine. We find that the vertebrae or bony sections of the spine are very close together; that the whole spine is very tight allowing scarcely any movement. This condition alone may cause pressure upon the spinal nerves which go to the stomach, shutting off a free flow of the nerve impulses or nervous energy generated by the nerve storage battery cells. We know that when these nerves are free from pressure, other conditions being normal, there is no trouble with the digestive process. Osteopathic philosophy tells us to free the nerve impulses by taking the pressure off of the nerves. Osteopathic principles tell us to adjust the anatomical parts by separating the vertebrae of the spine. We adjust the anatomy. The Infinite Wisdom which knows how to make gastric juice better than we do, brings back or adjusts the relation between structure and function, and the stomach makes gastric juice, for the purpose for which it was created, in just the right dose and at the right time. Isn't that a much better, nicer, cleaner, saner way of curing dyspepsia than to take artificial gastric juice, as pepsin, pancreatin, or hydrochloric acid drops; to take charcoal tablets, subnitrate of bismuth, etc?"

"Doctor, osteopathy is right. I am through with medicine. I think I can see now the reason why you set Mr. Progress' rib when he had lumbago."

"What? Oh, yes! I remember it. He had a hard time, too, until I took the pressure off of his last intercostal nerve and put the rib in place so that it would not stab his back every time he moved. Can you imagine how anything out of a bottle or pill box is going to put a twisted vertebrae or rib back into its normal place?"

"Doctor, I want an examination, now, at once. What shall I do to prepare for it?"

The doctor showed her a small dressing room. He handed her a gown and told her to remove all outside clothing to the undergarments and put on the gown. This she did quickly and at his bidding mounted a table such as is commonly used for giving osteopathic treatments. Dr. M. with the tips of his fingers made a careful examination over the gown and along the spine for spinal irregularities, rib displacements, and disturbances at all of the joints. As he went down her spine he described her troubles so accurately and without questioning her that she was completely surprised.

"Are you a clarivoyant?" she asked.

"No, indeed," said Dr. M., smiling. "It took three years of the hardest kind of study for me to learn how to do that for you."

"Well, it is all true. You shall have my case; and now I am ready to test the merits of osteopathy."

"I find many spinal irregularities," said the doctor. "These bony disturbances we call 'lesions'. The word 'lesion' is applied to all bony irregularities, and, in its broadest sense, we apply it to any misplaced or abnormal structure in the body. An osteopathic lesion is any structure which is out of its normal relations with its fellow structures. Nature has partially corrected these lesions, but enough deviation remains to make you weak. The severe strain caused by the birth of your first child wrenched nearly every joint in your body, resulting in so many lesions that your nerves are pinched and irritated. Thus you have become a nervous semi-invalid. Could you have had osteopathic treatment immediately

after the birth of your first child you would have been saved much suffering."

"Is it too late now?" she asked.

"It is never too late for osteopathy. Even in the last hours of those suffering with incurable diseases it lessens pain and smooths the death journey into the next world."

"Can you describe a treatment, Doctor?" she then asked.

"No one can describe an osteopathic treatment, Mrs. Conservatism. It is one of the things which must be experienced before it can be known. One thing is certain. It is not massage; and it is not even first cousin to it."

"Very well, you may treat me."

Soon after the first few treatments, Mrs. Conservatism discovered that the world was fast becoming a different place and she felt sure she would get well. She told Mrs. Progress so; that she had made her peace with Dr. Blunderbuss and had made him believe that osteopathy was something more than "scientific massage generously mixed with mind cure." ¶"Why osteopathy, Dora?" was her friend's mischievous reply.

OSTEOPATHY IN ACUTE DISEASES

OSTEOPATHY
In Acute Diseases

WHEN the head of the family comes home from the office with a stabbing pain in his side, a dry, short cough, and a rapidly rising fever, wise persons shake their heads and whisper "pneumonia," while the family look terrified and telephone for the doctor. Everyone is equally frightened if there is no cough and the pain is in the lower abdomen on the right side, for then the wise ones whisper "appendicitis," and wonder what will become of the children if anything happens to their father. An acute attack of diarrhoea without any fever at all sends the same shiver of apprehension through the family in localities where dysentery is common, because the possible danger to life is well understood. Why are these attacks of acute disease so dreaded? Chiefly because they come on so suddenly and run so short a course. The end is not far off; the patient either dies or gets well with commendable speed, as a usual thing, while the chronic complaints, with which the osteopaths made their first great success, last a long while. Father may have rheumatism, or arthritis, or chronic kidney disease, and still be about town able to support the family, albeit with some cost of pain, for a good many years. Calamities seen in the distance do not look nearly so formidable as when they loom up near at hand; and if people long for an improvement in the science of healing, it is for

use in the acute disorders, with their terrifying suddenness of onset and quick fatalities.

But comparatively few persons seek the newer methods of dealing with acute complaints; their very fear of a possibly fatal termination hinders their trying an osteopath, even as a matter of consultation, and the old idea of "Father must have something to take; why, he has a fever," carries the day. Who among the wise ones stops to think out the CAUSE of this sudden pain, or considers WHY the fever is rising at all? Yet these are the things that should decide the course to be pursued when the dreaded foe of acute disease stalks the family.

Those who are at all familiar with osteopathic practice know our contention that bodily pain is usually traceable to some disordered mechanics of the body, some slight degree of sprain or malposition of the tissues about the joints, especially the vertebral joints; these things have been described at length elsewhere. But acute attacks, in the great majority of cases, are accompanied by fever, and it is this fever that seems chiefly to give the sufferers the idea that they must "take something." If they think of the osteopath at all, they probably say: "Oh, yes, after the fever has subsided." The fever is unusual and closely connected in their minds with the "acute" nature of the trouble, and it frightens the patient and his friends more than any of the other symptoms. If they would only consider the cause of the fever and what it really is before they call their physician!

Everyone knows that heat is produced in the body because the animal is warmer than the surrounding air, as a usual thing. Most of us know something of the physiological process by which this heat is generated. It is a matter of combustion almost identical with that which goes on in a candle when it burns. The food taken into the digestive tract is absorbed into the blood and lymph streams and carried to the tissues,

where it first becomes a part of them and then really burns, while the products of the burning are given off as waste. These combustion products are proved to be present in the heated breath of an animal just as they can be found in the heated air rising from a candle flame, and a fever is simply this natural combustion going on too rapidly and extensively. Examine the breath and other substances thrown off by a fever patient and you will find the combustion products there in greater abundance than when he was in good health, while the rapid wasting of the body, unless the fever is promptly checked, testifies to the destruction of its substance which is going on. It is largely this wasting that frightens the family. But it is also true that the overheated blood irritates the centers in the nervous system that control the rate of breathing and the rate of the heart-beat; these functions are hurried and the panting breath and rapid heart add to the fright, because they speak even to the inexperienced persons of a frantic struggle against disease.

The wise ones will wish to know if fever is a hastening of natural processes, what makes them hasten? And it is the business of the osteopath to convince the wise ones, for they lead the rest. The cause of fever, as known to physiological science, is not difficult to understand, and it makes plain the means by which the osteopath can put his shoulder to Nature's wheel and give the life that sets the bodily mechanism to running smoothly once more. Concerning the heat-producing and heat-losing functions of the human body, the different schools of therapeutics have no argument, and the wise ones will agree with the physiologists that since the body is always producing heat, it must also be always losing heat, or it would soon grow too hot to live. There are two sides to the function.

Heat is produced in the deep tissues, the muscles and large glands like the liver, as they work over the

food material, burning it to furnish the energy for the work they do. Heat is lost in several ways: the excreta of the body are warmed and heat is lost in them; the breath is warmed and carries off still more heat. But the skin is the chief tissue that loses heat and so cools the body down. It radiates heat directly into the air; and moreover, when a high external temperature or vigorous muscular exertion tend to overheat the blood, perspiration breaks out on the skin and its evaporation carries off heat, thus cooling the blood in the surface capillaries. This shows us why a dog pants so excessively when he runs; he cannot sweat and must cool himself entirely by losing heat through warming up the air which he draws into his lungs as fast as possible. Poor dog, with only one means of cooling his blood! The fever patient is better off, for he has two—his skin with its great surface of blood capillaries and power to sweat does far more of the work than his lungs.

THUS the body temperature is regulated through the circulation of the blood, which is heated in the deep tissues where combustion is going on, and then carried to the lungs and skin, where it comes in contact with the outside air and cools off. This most important work is accomplished by the heart, working as steadily as a clock to drive the blood through the great system of arterial pipes on its unending round of the bodily tissues. But the body is no mere lifeless engine to run automatically in one certain groove at one particular job. It meets many vicissitudes on its walk in life, and must adapt itself to continually changing conditions; so it is necessary that the heating and cooling action of the blood apparatus shall be modified in order to keep the bodily temperature the same, no matter what may be the state of things outside. The rate of flow of the blood is constantly being changed in different parts of the body by two things; changes in the rate and force of the heart-beat and changes in the caliber of the smallest arteries connected with the capillaries so that they either let the blood through easily in larger quantities, or hold it back and cause it to congest in some part of the arterial system. But these changes must harmonize with each other, and therefore must come under some central government, so we find that the heart-beat and arterial caliber are both under the control of the nervous system. If it were otherwise, how could it happen that all parts of the body can be made to change their circulation to serve the best interests of the whole? And they do that. Any physiologist of good scientific standing will tell you how it is managed.

The heart is controlled by two sets of nerve fibers: One set quiets its action, making it beat more slowly or weakly, or both. The other set increases or augments the beat, making it go more quickly or strongly,

or both. The fibers are controlled by a nerve center in the spinal bulb or lowest part of the brain, which receives impulses from all parts of the body telling what conditions are, and enabling the nerves to modify the heart action according to the necessities of the moment. Observe the man in a fight who has received a severe blow on the stomach. He faints because the impulse of the blow has reached the quieting fibers and checked the heart-beat, so that the fresh blood does not reach his brain in sufficient quantities to keep up consciousness. It is the augmentor fibers that act in a fever. They receive impulses from the body at large that excite them to action, and the result is the quick pulse, alarming family and friends.

The caliber of the arteries is also a matter under nervous control, for all the little muscles in the walls of the small end arteries are supplied with nerve fibers (the vaso-motor nerves) that make them contract and hold the blood back, or dilate and let it go through freely. If you want to see for yourself how the little arteries change their caliber, get a rabbit, a light-colored one, if possible. Hold it up by the ears and watch the blood vessels running up the middle line of the ear. You will soon see them dilate, growing wider while the whole ear flushes pink as the blood rushes into it. Presently the blood vessels will contract, becoming very narrow, and the ear will grow paler as the circulation is less free.

Now we can see how the general condition of the system is controlled by the center in the spinal bulb, for it acts through the nerves chiefly on two great fields of arteries, the abdominal vessels and the ones to the skin. What could be simpler? Let the blood congest in the abdominal vessels and oversupply the liver and big glands. Chemical activity is increased, materials are burned up faster, and the body heats. Contract the abdominal vessels and the blood, driven out of them, seeks the skin, the great twin field of cir-

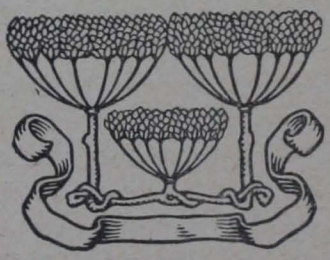
culation, and gets cool. If the flushing of the skin capillaries is considerable, the sweat breaks out and the temperature of the body comes down rapidly.

Probably most people have noticed something of this behavior of the circulation themselves. When the weather is very hot they have observed that the skin capillaries become flushed with blood; they feel warm and the perspiration is free. This happens because the nerve center in the spinal bulb (called by the physiologists the thermogenic center) is in good working order and attending to its business. It receives impulses from the heated skin telling of the warming up that is going on, and it sends the blood faster through the skin that the sweat may cool it down more rapidly by evaporation. But flushing the skin capillaries also draws the blood away from the digestive tract and the appetite wanes in consequence.

Has not almost everyone noticed that he eats less on a very hot day, and that he drinks more to make up for the fluid lost in perspiration? On the other hand, let a cold breeze, or any other sufficient cause, contract the little arteries in the skin. The blood is driven in and the arteries in the digestive tract are dilated, while the skin feels cold. Food taken into the digestive tract has much the same effect; it causes a dilation of the digestive arteries and a contracting of the arteries in the skin, so that a person may feel a distinct chill after a heavy meal. This was known to our ancestors who originated the proverb: "If you eat till you're cold, you'll live to be old," presuming that a good appetite and plenty of food are the basis of health.

By this mechanism of a double field of circulation, one large branch internal, the other external, it is possible to compensate for an increase in heat production by a corresponding increase in the loss of heat, unless the controlling center in the spinal bulb is disturbed in some way. Unfortunately this little group of nerve cells has no judgment of its own, or power to act in-

dependently of the impulses reaching it from the rest of the body, but like a windmill, it switches about as the powers indicate. That is, if a legion of bacteria or disease germs invade the body and settle down to secrete the poisons they throw into the blood stream, these substances irritate the heat center in such a way that it loses its balance, as it were, and the heat production runs up to an excess, causing fever. Sometimes a local cause may operate injuriously on the system, producing inflammation and death of tissue, as in case of an abscess. If this process is extensive enough, the poisons produced may cause fever, the same as the germs of an infectious disease do. These things are known to all physicians, but it is not by any means so generally known that the malpositions recognized by the osteopaths among the bony and ligamentous tissues, and called by them lesions, may irritate the heat center, or interfere with the balance of heart action, or disturb the vaso-motor nerves. Nevertheless, the stresses and strains of ordinary life often do produce fever in just this way.



WHAT, then, should be done to remedy matters and cure the fever? Take some drug into the stomach? There are drugs that will lessen the heart action or increase the flow of urine or sweat, and so temporarily decrease the temperature of the body. But these are poisons which must be thrown out of the system somehow, and the organs of excretion are overtaxed already in getting rid of the waste products. Moreover, the drugs cannot kill the germs nor adjust the malpositions. No, the wise ones will admit that the logical thing to do is to restore nature's balance in heat production and loss; hasten the elimination of the waste products already present, repair the tissues, and kill off the germs that have lodged in them. Especially is this the method for infectious diseases; and the family want it carried out quickly because it is the sudden end of the attack that they dread.

See how the osteopath takes hold of such a case. He first puts those irritating lesions right. Then he applies himself to the nerves and nerve centers controlling the heart-beat and the caliber of the great twin fields of arteries. He quiets the wearying heart, and after a little rest that faithful pump has new strength for the struggle. He causes the arteries in the abdomen to contract and throw the blood into the skin. He reinforces this by work to dilate the skin arteries and let them carry still more until the sweat breaks out and you cry: "The fever is broken." This is Nature's way of checking fever by regulation of the circulation, and by it there is no extra burden thrown on the system for the elimination of foreign poisons.

But the osteopath does not stop with checking the fever. He knows that if the circulation through the kidneys is quickened more waste is thrown off through them, and he works directly on the nerve centers controlling their blood supply to secure this result. He

also stimulates the bowels to freer action, and his intimate knowledge of the anatomy of the human frame and reliance on natural ways of securing his effects qualify him well for clearing out the digestive tract as thoroughly as it can be done. All this work for elimination restores a quick and free, instead of a slow and congested, circulation in the abdominal organs, and their physiological processes become normal. Food is digested and the blood is furnished with good material for nourishment instead of waste matter to poison the system. Soon the anxious family will see the patient's strength increase, his wasted tissues fill out, and his weight go up.

"But," the wise ones will exclaim, "the osteopath has left the bacteria, all the legions of germs that cause infectious diseases, comfortably seated in the tissues and secreting the poisons that produced the fever. How about that?" The answer is that the presence of the germs depends on causes that the osteopath removes. They never invade the body when it is in a state of health and its defenses are good, for kind Mother Nature, knowing that the bacteria are very useful in their own place, but death to the animal body, provides a garrison to keep them out of the tissues, and weapons to annihilate their armies should they slip past the guard.

The outworks of the body defenses are the cells of the skin externally and the cells of the mucous membrane lining the lungs and the digestive tract. As long as these cells are healthy and the membranes they compose are intact, few indeed are the bacteria that can penetrate to the organs below. The cells lie like bricks, edge to edge, cemented firmly together; there is no room between, and their cell bodies will not let any foreign life get through. But when there is a break in the wall somewhere, or an overwhelming force outside, so that invasion is possible, there is still a garrison within, for the white

blood cells, like little soldiers, fall upon the bacteria and actually EAT THEM UP. If the system could produce enough white blood cells, the bacteria would stand no more chance than a flock of chickens straying into the tents of an army; their doom would be sealed at once. Moreover, the cells of which the tissues are composed are able to manufacture chemical substances that poison the germs, even as the secretions of the germs poison the tissues; and these matters thrown into the blood stream in sufficient quantity are the weapons which dispose of the invaders where they stand. There is not much danger of infection when all things are in good working order.

But alas for Mother Nature's plans, sometimes slips occur in her well-oiled machinery. Joints are slightly twisted, ligaments are thrown awry, and the blood stream is interfered with so that some tract of tissue is not properly nourished. Then these defenses are all reduced, the citadel becomes weakened and a breach is made for the germs. Here the osteopath comes in with his ready aid, and no other help is known for this peculiar primary cause of trouble. He sets those malpositions right as fast as possible; the blood flows freely once more; the white blood cells grow faster, become more numerous, and advance boldly on the germs as the organs and tissues strengthen again, while the defensive chemicals are poured into the blood stream to kill the invaders off. This is Nature's own method of disposing of the germs, for she fights fire with fire, cells with cells, and chemicals with other chemicals of equal strength. This the osteopath understands and he holds up Nature's hands until order is restored in the suffering human frame.

Furthermore, there is no delay whatever about the commencement of osteopathic treatment. How many cases have come to your knowledge in which a physician, called to attend a victim coming down with fever and pain, has said: "We must wait for the

symptoms to develop before we can know the disease. It does not show itself yet?" Then when the medical man finds that the disease is scarlet fever, typhoid fever, measles or other type of infection, he declares: "This is a self-limited disease; the crisis will come in about so many days. Let the patient have good nursing, and I will treat the symptoms as they arise." The osteopath does not wait for the disease to mature before he fights it; he does not need to see the lesions develop; they are there under his hand and he attacks them at once, combining his work with treatment to check the fever. Often the whole thing is stopped before the symptoms become definite enough for an accurate diagnosis. Of course, infections differ greatly in intensity, and patients differ also in their store of vitality and recuperative powers, but in any case, the sooner relief begins the better for everyone concerned. In an acute case in the hands of an osteopath the removal of the primary cause of bodily weakening begins at the first call, and the treatment of the symptoms continues until they are smothered. That is ideal for the infectious diseases.

BUT osteopathy goes further than the breaking of the acute attack. In no other school of healing can the means be found to prevent the after-effects of infections so conclusively as in the osteopathic school. The heart, left weak by rheumatic fever, the ears left deaf by scarlet fever, the lungs a prey to pneumonia after measles, the kidneys weakened by diphtheria—who does not dread them? Indeed, sometimes these sequelae are worse than the original disease and last for life. But they can be prevented in almost every instance by the body-building work of the osteopath, which sets free a normal circulation of good quality blood in the affected part. The heart is supported by the quieting treatment that slows it down and gives the little arteries in its walls a chance to swell with blood and nourish the heart muscle. It finishes the acute attack with no lasting weakness to cripple father's later life. The ears are defended in the same way, by a vigorous blood stream preventing inflammation, and nourishing the tissues, for the vessels to the ears run up through the neck. They and the nerves controlling their caliber are accessible to the osteopath, who stimulates them thoroughly whenever there is any sign of trouble in the ear or other part of the head. Lungs and kidneys are protected in the same way, for the cause of the adhesions and weakness, pus formations and other ills following acute diseases, is found in an impeded circulation, which has not been able to remove waste fast enough, nor to bring in the food supply as it was needed. There is no drug that can attend to this contracting and dilating of blood vessels in place of the osteopath; and to use a knife on the adhesions is dangerous and useless, for they form again as soon as the body is sewed up and the tissues left with their abnormal cir-

culation unable to keep up proper nutrition and elimination.

"But what about other acute diseases," object the wise once more; "there is dysentery, there is no fever with that." True, there is no fever with dysentery, or only slight fever, for the muscular coat of the bowels is irritated, making them overactive, and the constant drainage tends of itself to keep down the fever. But there are sequelae, for the attack is apt to recur, often becoming chronic and wasting the patient fearfully. The lining of the digestive tract is inflamed, and there is a fine place for bacteria to colonize, while all the functions of digestion are impaired or suspended. A dangerous condition, surely; but did you know that it was in dysentery that osteopathy won its first success, when Dr. Still found a boy suffering with one of the attacks so common in Missouri, and broke it with one treatment? And what did he say was the matter with the boy? Why, a lesion, to be sure; not a lesion in the sense used by the old school, but a malposition of the vertebrae, which irritated nerves, leaving the spinal cord to supply the intestines. He corrected the lesion and removed the primary cause of the disease. After that the blood killed the bacteria and the restored circulation healed the ulcers. It has been done since, many, many times, and it is always better than injuring the stomach with strong drugs.

There are acute, or sudden, attacks of other troubles than the infections and dysentery in which osteopathy is equally successful. Consider the neuralgias, for example. What causes them? Medical physicians will tell you that there are no pathologic or morbid changes in the nerves themselves, and either say the true cause is not known, or give a great variety of possible reasons for it, including nervous temperament and altered conditions of the blood in which it is unable to give sufficient nourishment to the ner-

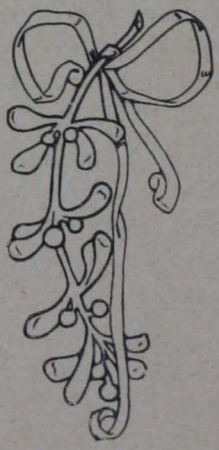
vous tissue. All these things are partly true, but they are not the whole truth. Osteopathy has added another chapter to the history of neuralgia, and it does not blister the skin over the affected nerves, or cut them out and stretch them, or take any other such heroic measures. Your osteopath will simply look for the thing that is either irritating the nerve by direct mechanical pressure or impairing its blood supply. Whether the suffering nerve is in the face or in the leg, the cause of its rebellion is apt to be the same—some mechanical pressure of misplaced tissue—and this the osteopath corrects. He is very prompt about it, too, and the manipulations are not so violent as to increase the pain. On the contrary, they usually give quick relief. If it is neuralgia that is keeping father out of the office, do not despair; the nerve can probably be freed from pressure, the general health built up and the blood supply improved until the pain disappears.

Then do not let anyone tell you that osteopathy is dangerous, is too severe, or exposes the patient. The osteopath alone is qualified to adjust the malpositions that are irritating nerve centers and fibers along the spine. Don't imagine that if father has the pneumonia the osteopath will throw back the covers and stand him on his head to stimulate the circulation. "There are more ways than one to choke a dog with butter," and the osteopath does not give the same treatment in a fever that he does when an engineer comes to the office with a torpid liver caused by an old lesion in the lower back. That man is strong, his muscles are heavy, he is in no danger from a cold, and the treatment must be strong to get at the trouble. Malpositions causing congestion in the lungs and allowing bacteria to settle there for their deadly work can be adjusted under the bed covers, or at least without undue exposure in a warm room. With the cause removed and no foreign poison to throw off, the

vitality can expend itself in repairing the damage done. Moreover, antisepsis and disinfection are not forgotten; the osteopath attends to these measures also, for the allopath has no patent on the germicides any more than he has a brand on the germs. They are all free property, whatever names you call them by.

So Nature and the osteopath walk hand in hand. She abhors disease and so does he. Both strive for relief to the pain-tortured, fever-racked organism of man and they do not strive in vain, for they combine their efforts, and "In union there is strength." They enter the frightened household of the suffering man with a message of good cheer, and more, they bring results forward immediately as a basis for hope.

Nature never delays, and neither does the osteopath, for he knows well that she is never standing still, and that he must be quick to keep up with her constant changes. Trust Nature and the osteopath. You will not be disappointed.



The Spinal Origin of Disease

The Spinal Origin of Disease

PART I

Reasons for Treating the Spine

O YOU know, thoughtful reader, that what appears to be the strongest part of the body is in reality the weakest?

You were, no doubt, taught to believe that the vital organs are at all times likely to become affected—often upon the slightest provocation. But you thought it well nigh impossible for anything short of severe injury to affect the back.

Contrary to this belief, osteopathy has shown that whenever the vital organs function badly—as in diseases and disorders of the heart, lungs, bronchial tubes, stomach, liver, kidneys, spleen, pancreas, intestines, bladder, uterus, ovaries, etc.—the spine is almost invariably at fault.

Moreover, osteopathy demonstrates that the quickest and safest way to overcome internal bodily disturbance is to reach directly the great nerve centers of organic control. The osteopath reaches these centers directly by treatment applied externally to the spine.

"But why," you ask, "is the backbone so easily affected? And how does trouble in the spine produce disease in remotely situated organs of the body?" These are questions we shall now undertake to answer.

THE AUTHOR'S FINDINGS REGARDING THE SPINE.

The writer entered the osteopathic profession over fourteen years ago. Since that time he has carried on extensive investigations concerning the spine. Years ago he reached the conclusion that the gen-

erally accepted teachings concerning the human vertebral columns were wrong. To establish his position in this matter, and at the same time to strengthen the osteopathic theory concerning The Spinal Origin of Disease, he made the above mentioned observations and investigations.

The conclusions based upon these investigations are summarized in the following extract from an article by the author which appeared December 1st, 1912, in the New York American, also in the other Hearst papers throughout the country:

"No perfectly formed spinal column has ever been found in the human race. Cats, dogs, rabbits, and all other lower animals have backbones that are admirable in their configuration and their function. But as we ascend in the scale of animal life the spine becomes more and more imperfect. No human being today has a perfect back.

"The medical profession has dreamed a dream of a perfect backbone. It has idealized the bony structure that supports us erect. It has taught that in a healthy person the mainstay of the body is a succession of twenty-four bones at equal distance apart, and of the same formation on both sides, and that these bones, placed one upon another, form a column gracefully curved in the different regions of the back.

"But the medical profession has idealized our twenty-four vertebrae. There is no such human spine as they picture.

"Those who entertain the foregoing belief have made a mistake as serious as the machinist would make did he say that a machine of his construction was equally strong in every part. The truth is that a finely constructed machine has parts that are structurally weaker than others. So it is with that marvelously constructed machine, the human body. Elaborately constructed as is the human body, a relatively unequal degree of strength and serviceability has developed in different parts of the organism. The spine is our weakest part. And the spine itself a marvelously constructed machine, has, in its turn, its weak points. The knowledge of where these points are is important to every one."

The Philadelphia Record, one of the leading newspapers of the Quaker City, commented as follows upon the foregoing statements:

"As this investigator has devoted twelve years of careful research to his theory that a perfect spine is not a normal one but an ideal one, and has in the course of his studies examined over 3,000 healthy spines, he has ample ground for the definiteness of his contentions."

WEAK POINTS IN SPINAL COLUMN.

As to the practical importance of the before mentioned discoveries little need be said. Every one knows that within the backbone lies the spinal cord or marrow. This great cord connects the brain and all the vital organs by means of nerve pathways.

The spinal marrow is, so to speak, the great relay station of the nervous system. Its most important function is to transmit messages from the vital organs to the great nerve centers in the brain. These messages are sent from all parts of the body. They notify the brain centers of the condition and needs of the vital organs.

If more than the usual supply of blood is needed in a certain organ, for example, in the stomach during digestion, the organ in question telegraphs the fact to the brain via the spinal cord. Immediately upon receipt of the message, the brain telegraphs to the great centers in the spine where blood-flow to the vital organs is controlled and regulated. These spinal centers are told to send an increased blood supply, sufficient to meet the needs of the organ where increase in function is necessary.

If all such messages are promptly delivered, and all orders properly carried out by the spinal centers, health obtains throughout the body. But if anything acts to prevent their prompt or proper transmission, disease is the inevitable result.

Thus, it is at once apparent that the spinal cord, the great switchboard of the nervous system, and the central point for regulating blood-flow to the internal organs, must be free from obstruction. Otherwise nerve impulses will go astray and vital activities will make for disease.

Now, as already pointed out, the human spine presents many weak and vulnerable points. At such points serious injury often occurs from unobservable causes. The spine sustains the greater part of the body-weight. It acts as a support for the vital organs. By its efforts equilibrium is maintained and the body is kept in the upright posture.

In other words, the human spine during waking hours performs a prodigious feat. It resists the greatest and most mysterious of all forces, viz., the constant, and all but overpowering force of gravity.

The history of humanity is simply the life story of a race of beings who have from birth until death resisted desperately the unseen force of gravity.

In the end, as we all know, gravity wins; for it is the force that finally lays us low. It does not work openly, neither does it fell us at one blow. But little by little it weakens our skeletal framework by pulling, constantly pulling, us downward toward the grave.

"And where do our bodies give way first?" "Why at the weakest point, of course, or else where the pull is greatest." And as already shown, not only is the spine a weak point in the skeletal framework, but it bears the brunt of the constant downward pull of gravity as well. That is, in the spine the pull is greatest.

FAMILIAR ILLUSTRATIONS OF SPINAL WEAKNESS.

In the 1912 Research Journal of the American Osteopathic Association, the author summed up the matters as follows:

"The inherent weakness of man's spine is made plain in the following illustrations with which we are all familiar:

"Let us view the vertebral column at the extremes of life; when the muscular and nervous systems do not aid or reinforce the column in the performance of its functions; and it is thrown upon its own intrinsic resources.

"At the beginning of life, the weakness of the spine is striking; it is indeed the most conspicuous feature of the helplessness of human infancy. Also

towards the close of life, signs of spinal weakness are unmistakable; for the inevitable stoop of declining years means failure of the bony-framework at its weakest point."

AMAZING FACTS CONCERNING THE SPINE.

So much for theory. Let us now study the practical side of spinal involvement.

It is interesting to note that some persons think of their back as a solid structure. But as a matter of fact, this part of the anatomy is made up of small, irregularly shaped bones, joined together at 204 places. Just consider for a moment, thoughtful reader, the meaning of this fact! It means that, including articulations with the skull, the ribs, and the pelvis, there are 102 movable joints in your back.

These joints are movable, please remember. Moreover, if any one or more of these 102 joints fail to move freely and naturally disease is the immediate or ultimate result.

And here is the reason: in almost immediate proximity to each of the 102 spinal joints are to be found certain important nerve centers. (For instance, the great centers, already referred to, that control blood flow in the vital organs.) These centers, situated so near the movable parts of the spinal column, are as important in function as the brain centers; for they very largely control organic life.

"SPINAL LESIONS," CAUSE AND EFFECT.

Now, a spinal joint that has become partially or totally incapable of movement is called a spinal or osteopathic lesion.

Such a lesion may result from (1) injury to the spine; (2) the constant downward pull of gravity upon weak points in the vertebral column; (3) rheumatic deposits around one or more spinal joints; and (4) spinal muscular contractions reflected from internal organic disturbance.

The effect of an osteopathic lesion upon the neighboring nerve centers is pernicious. As a result of such a lesion the blood and lymph-flow in neighboring spinal centers is disturbed. Around a spinal lesion foreign deposits accumulate to still further im-

pede circulation at the point of joint fixation. This stagnant and impure blood collects and spreads into the near-by spinal cord centers. Spinal centers thus affected can no longer transmit impulses properly. In consequence the related organs suffer and disease is ushered into the body.

Thus impaired movement in a spinal joint (and there are 102 of them) involves the nervous system, and thereby acts as a hindrance to healthy organic activity.

DR. STILL'S DISCOVERY CONCERNING THE SPINE.

In a sense osteopathy may be said to have discovered the spine. Physicians themselves did not know that free, unrestricted vertebral movement is essential to health until Dr. Still, founder of osteopathy, pointed out this fact to the world. Today, however, a great school of curative practice is based upon this demonstrable fact. And today perhaps millions of thankful persons are singing the praises of osteopathy. The distinctive feature of Dr. Still's is a practical one. Osteopathic diagnosis, by a system peculiarly its own, enables the physician to ferret out the spinal joint or joints that fail to move.

Thus osteopathy, by restoring natural movement in the spine, routs disease after other systems fail.

PATIENTS UNAWARE OF SPINAL LESIONS.

An osteopathic lesion does not always produce pain or discomfort in the back. Its effects are more often observed at some far distant point, as, for example, in one or more of the vital organs. For this reason a patient will often insist that it would be useless to consult an osteopath in that no pain is felt in the back.

Usually, however, the patient feels a decided discomfort between the shoulders, or a weakness in the small of the back, or a feeling of pressure at the base of the brain. Occasionally acute pain is felt at the seat of spinal lesion. And not infrequently stabbing pains will seem to shoot from the spine and pierce the body.

Again, an osteopathic lesion may be so severe that the patient is kept in bed suffering from pain. But, as stated before, pain in the back may be absent even though a serious lesion exists.

SCIENTIFIC PROOF OF OSTEOPATHY'S CLAIMS.

The great Osteopathic Research Institute at Chicago has demonstrated beyond any question of doubt that impaired movement in a spinal joint involves the nervous system, and thereby acts as a hindrance to organic function.

Results Obtained Through Spinal Treatment.

OSTEOPATHIC SUCCESS.

The success of osteopathy rests upon common sense methods of diagnosis and treatment. An osteopath will often promise very little in the way of curing what appears to be a mild complaint. In such instances, an examination of the patient discloses spinal lesions that are beyond the possibility of removal. On the other hand, an osteopath will often give assurance of complete recovery from diseases with terrifying names. He knows that he can cure such diseases because, by his practical methods of diagnosis, he determines that the cause (i. e., the spinal lesion) is a removable one.

Osteopathy is not indicated in any one class of diseases more than in another class. Its practitioners, during the past twenty-two years, have treated with an equal degree of success almost every form of disease and disability. If a patient's case is not curable under osteopathic treatment, the capable osteopath so states after a careful examination. Thus through painstaking, honest and scientific procedure, osteopathy has won the confidence of the public at large.

To further demonstrate that the success of osteopathy is due—not to hit or miss methods—but to the application of scientific principles, the osteopathic treatment of certain diseases will here be considered. It must be borne in mind that the following list represents but a very small percentage of the diseases successfully treated by osteopathy. However, a brief consideration of osteopathic results in a few diseases will suggest the rationality and practicability of administering osteopathic treatment in a vast array of diseases not mentioned herein.

ALBUMINURIA.
ALBUMIN IN THE URINE.

The failure of drugs to cure kidney trouble has long been recognized. This failure has been forcibly impressed upon life insurance companies. It is generally known that more applicants have been refused policies because of kidney trouble, as indicated by albumin in the urine than from any other one cause. This means but one thing, to-wit: that in the years gone by physicians have failed to reach the cause of kidney destruction.

It is only within recent years that success has attended the treatment of kidney disorders—and this treatment is a drugless one.

Osteopathy has demonstrated that, taken in the early stages, kidney trouble is curable; and that even in advanced stages much relief can be given. In some advanced cases the progress has been checked; and many patients are alive and apparently well today who were told, ten or fifteen years ago, that Bright's Disease would end their lives within a few months.

To those not familiar with osteopathy, the foregoing statement may seem to be almost beyond belief. However, these statements are based upon personal observation, and backed up by urine analysis made by chemists of high standing in their community.

The success of the osteopathic treatment for albumin in the urine is causing much interest among those engaged in selling life insurance. Many insurance agents have recently employed osteopaths to examine all prospective applicants for insurance. If albumin is present, osteopathic treatment is given to clear up the urine before application for a policy is made.

Albumin in the urine means poor circulation in the kidneys. The nerve center that controls the blood flow to these organs is situated in the spine. The osteopath reaches this center directly and, by corrective treatment, reestablishes normal blood flow in the kidneys, and thereby rids the urine of albumin.

ANEMIA.

The osteopath has discovered one important reason why women suffer from anemia more frequently

than men. The blood gets its red color from myriads of microscopic cells that float in the colorless liquid. These red cells originate in the red marrow of the short and flat bones of the body. Thus the ribs, being flat bones, play an important part in supplying the blood with red cells.

Osteopathy has demonstrated that free, unrestricted movement of the ribs in breathing and in bending the back acts as a stimulant to the blood flow inside the chest. Increase in blood flow increases function. Therefore, the stimulating effect of normal rib movement, as in breathing, must be constant. Otherwise circulation in the lungs and oxygenation of the blood is deficient and the red blood cells suffer.

Women, through tight lacing and general inactivity, are particularly liable to develop a rigid chest. That is to say, the joints of the ribs at their spinal ends become fixed. Men sometimes develop such a condition and suffer from anemia and "weak lungs." But on the whole, women, by virtue of their mode of living, are more frequent sufferers in this respect than men.

If you doubt the scientific accuracy of the foregoing statement, have the blood of an anemic person examined by someone who makes a specialty of examining blood. Almost every town has one or more specialists in blood analysis. If anemia is present the blood will be 10, 20 or 30 per cent below normal.

After the foregoing analysis is made put the patient under osteopathic treatment. Nine times out of ten the ribs do not move freely and the spine between the shoulders is rigid. If the ribs and spine are at fault, and if the patient does not suffer from cancer or so-called pernicious anemia, osteopathy will restore the blood to normal and the patient to health.

To prove that anemia is no longer present take the patient to the chemist who first examined the blood. The second analysis will show a normal condition of the blood.

ASTHMA.

If the spine is at fault in asthma, osteopathy can effect a cure. Many cases of long standing are cured by adjusting abnormalities of the spine or thorax.

These vertebral or rib conditions irritate nearby nerve centers. This irritation reacts upon the nervous system. As a result, the small bronchial tubes are constricted so that breathing becomes extremely difficult and painful. As already stated, in a large proportion of cases, if the spine is at fault, osteopathy can cure asthma.

AUTOINTOXICATION.

(Self Poisoning.)

When a person feels out of sorts, and yet is not really ill, the chances are that the poisons, constantly formed in the body, are not properly thrown off. If self poisoning continues for any length of time serious symptoms appear. Prostration often occurs. The heart is weakened. The nervous system shows profound disturbance. In short, the patient is in fit condition to contract some fatal malady.

Osteopathy reaches directly the centers that control elimination. By treating the spine the osteopath stimulates activity in the lungs, kidneys, liver, intestines and skin—the chief organs of elimination.

Rest, osteopathic treatment and proper diet will rid the system of poisons and prevent the development of serious diseases.

BRONCHITIS, CATARRH, COLD IN HEAD AND CHEST.

In this class of disorders, osteopathy is successful because it overcomes the congestion or inflammation, whether it be of the nose, throat or bronchial tubes. The spinal centers of control over the blood flow to the above named structures lie in the upper part of the vertebral column between the shoulders.

Congestion means stagnation of blood. Stagnant blood means poisonous blood. Catarrh is simply one form of congestion.

Osteopathy removes stagnant blood by removing all obstructions to healthy blood flow. In this way it cures bronchitis and catarrh of the nose and throat.

CONSTIPATION.

In chronic constipation, spinal rigidity is always found. Restoring motion to involved vertebral joints is an osteopathic measure for curing constipation.

CHOREA.
(St. Vitus Dance.)

Children are frequent sufferers from chorea. Irritation of nerve centers is a recognized cause. Osteopathy inhibits abnormal nerve activities, restores harmony between the muscular and the nervous systems, and thereby removes the muscular twitchings and spasms that characterize chorea.

DIABETES.

This dreaded disease is a nutritional disorder, in which the vital elements of the food, instead of being converted into bodily tissue, are thrown off in the urine.

The centers of nutrition are situated in the spinal cord; and the success of osteopathy in diabetes is due in large part, no doubt, to the treatment administered to the spine.

DIARRHEA.

Diarrhea is overcome osteopathically by treatment given to the lower part of the spine. One treatment is sufficient to check simple diarrhea.

GOUTY JOINTS.

In women, more frequently than in men, the joints of the fingers enlarge and become extremely painful. If these enlargements are not properly treated, permanent deformity and disability result.

The most that drugs can hope to do for gouty joints is to check their growth. Osteopathy, however, by spinal treatment, and by mechanical treatment of the involved joints, reduces the enlargement until the joints are practically normal.

HARDENED ARTERIES; HIGH BLOOD PRESSURE; BRIGHT'S DISEASE; APOPLEXY.

Hardening of the arteries is accompanied by enlargement of the heart and destruction of the kidneys. Such a condition, in the advanced stages, is called Bright's Disease. (See page 9.)

High blood pressure is a symptom of hardened arteries and hypertrophied (enlarged) parts.

Osteopathy does not claim to affect softening of hardened arteries. Nothing has ever been discovered that would do this. It does, however, demonstrate that by overcoming the spinal rigidity, which is ever present in hardening of the arteries, the muscular system is greatly strengthened and the work of the heart lessened. Further, the return of normal spinal movement stimulates the lungs, kidney and liver to greater activity. Thus, the work of the heart is greatly lessened and blood pressure lowered.

Beyond doubt in cases of hardening of the arteries, the timely interference of osteopathy has warded off apoplexy—the dreaded complication of continued high blood pressure.

HEADACHE.

Headache is a symptom rather than a disease. It results from so many different causes that to attempt a description of them all would be impossible in this brief discussion.

It is sufficient to say that osteopathy treats successfully the vast majority of headaches from whatever cause.

HEART DISEASE.

Functional heart trouble is due to disturbance of the nerves that supply this organ. All such disorders are curable under osteopathic treatment.

Organic or valvular heart trouble is an incurable condition no matter what treatment is given. However, the fact that a patient has a leaky heart-valve is no reason for special alarm.

In valvular heart disease osteopathy builds up the general health. And although the heart enlargement

will remain and the noise of the leak will always be present, the patient will live in apparent good health for many years under osteopathic care.

AN INTERESTING CASE CITED.

The writer could tell of many instances where heart specialists had given the patient only a few days to live, and where osteopathy, in a comparatively short time, had restored the sufferer to health. One interesting case will suffice to illustrate:

A girl, ten years old, had been confined to her bed for years suffering from a leak in what is called the mitral valve of the heart. She had gradually grown weaker until one day the family physician told the grief-stricken family that the girl had but a few hours to live.

Under protest from the family physician an osteopath was called to treat the little girl. To make a long story short, the little girl was playing in the yard in less than three months. That happened years ago. Today the little girl is grown, and although the leaky heart remains, she herself is a wife and mother and in apparently the best of health.

This case is so well known throughout one part of the country that almost any osteopath in the South can tell you where the little girl lived. And any well known resident of her native city can tell you her name.

NEURALGIA AND NEURITIS.

Nerves and nerve centers are richly supplied with blood. Neuralgia and neuritis are due to some disturbance in this supply.

Osteopathy overcomes such disturbances by normalizing the blood supply in the spinal centers connected with the painful nerves.

PAINFUL MENSTRUATION; UTERINE DISPLACEMENT, ETC.

In treating diseases of women, osteopathy finds it unnecessary to resort to those barbarous methods of practice employed by many old school specialists.

If the pelvis, which constitutes a solid, bony pro-

tection for the uterus, ovaries, tubes, bladder, etc., tilts forward or backward, as a result of weakness of the lower part of the spine, the force of gravity pulls the female organs out of their normal position. As a result blood stagnates in the ovaries and uterus. Painful menstruation and general lassitude follow.

Osteopathy readjusts those great bones attached to the lower part of the spine so that gravity cannot displace or interfere with the function of woman's internal sexual organs. Thus, painful menstruation and uterine displacement are overcome by osteopathy.

PROSTATIC ENLARGEMENT.

Many diseases peculiar to men are cured by adjustment of the vertebrae in the lower part of the back. Enlargement of the prostate often failed to yield to local treatment alone, because, under the old methods, the spinal disturbance was overlooked.

RHEUMATISM.

Poisonous substances, formed in the body, but not thrown off as they should be, cause chronic rheumatism. These poisons circulate in the blood and lodge around joints and in muscles, where they cause swelling, pain, stiffness, and loss of movement.

Osteopathy cures rheumatism by normalizing the kidney and liver centers in the spine. It also eliminates poison by stimulating the bowels to activity.

Deep breathing, moderate, wholesome diet, spinal treatment to promote healthy bowel and kidney activity, and mechanical treatment to loosen stiff muscles and joints this is what osteopathy prescribes for rheumatism.

HOW TO PREVENT DISEASE AND PROLONG LIFE.

It is greater to be able to prevent disease than to cure it.

If the business man, the professional man, the housewife, the society woman, and the growing boy and girl were to have their spines attended to before the downward pull of gravity and the general wear and tear upon the spine produce irreparable damage,

many diseases would be prevented and life would be prolonged many years.

In fact, if you keep your spine supple and strong you will keep your body young throughout life.

CAN OSTEOPATHY CURE ME?

Now the question of supreme importance to the invalid is this: "Can osteopathy cure me?"

In reply to the foregoing question we would suggest that the invalid consult an osteopath. An osteopathic physician can tell whether or not the spine is at fault. He is an expert in such matters. His fingers have had years of special training in such matters. His fingers have had years of special training to enable him to find disordered or diseased conditions of the spine. So expert does the experienced osteopath become that he is enabled to diagnose the nature of the most minute vertebral mal-adjustments. Indeed, so slight are the majority of the spinal displacements which cause disease that only a skilled osteopath can detect their presence.

If, then, you are in ill health, go to an osteopath for examination. Do not go to a physician whose knowledge of spinal diagnosis is superficial or altogether lacking. Even if your spine were at fault, such a physician would not recognize the fact. He would very likely tell you there was nothing the matter with your back.

But an osteopath, in a sense, is a spine specialist. He is able to tell you exactly what ails your back. If your disease is curable he is eminently qualified to locate and remove the cause, whatever the ailment may be.

Osteopathy in Chronic Cases

OSTEOPATHY
In Chronic Cases

"Sick, sick, and too—too sick,
And sick and like to die;
The sickest night that ever I abode,
God Lord, have mercy on me!"
—From "Captain Car," an old Scottish ballad.

IT IS an old, old cry that still quivers up from every city and town around the world every night in the year. You can hear it any time you open your window to listen, for where is there a community of people all in perfect health?. And the dying who cry for mercy are not those feeble with age, passing suddenly and almost painlessly to their long repose, as they would if nothing but old age ailed them. The dying are young and middle aged persons, and people in the very early years of old age who are dying slowly, killed by inches with great suffering because their organs have been long disintegrating under the inroads of some chronic disease. They have not been well, really well, for years, but they have "kept up" pretty fairly and have been "able to get about."

Look up and down the streets of your native town or city. You know that in this house lives a woman with frequent attacks of gall stone colic, becoming more severe as she grows weaker. In that house lives a man who has chronic rheumatism; perhaps an engineer who has been much exposed in his out-door occupation. The first few sub-acute attacks he recovered from rather easily; perhaps he finally spent a winter in Florida or California. But now he is pretty well crippled up and would "pay anything" to

get out and around again. Yonder lives a woman tormented with chronic bronchitis. She has a little spell of relief in the summer weather, but every winter it is an incessant cough, coming in paroxysms, especially at night; and every winter the attacks are worse. Just around the block lives a friend supporting an aunt who is a victim of chronic gastritis. She used to teach, but her trouble began as "dyspepsia" and she "took something" for it frequently. The something did not cure her; perhaps it relieved her temporarily, however, and she struggled on, spending her savings from the year's salary in vacation trips to various springs and health resorts, until now she is unable to work and must live with her nephew and wear it out as best she may. Poor woman! (And poor nephew, too; he does not make any too much money for his immediate family.)

So your survey goes on, up one street and down another, with a list of victims growing longer at every turn and the remedies tried and given up more appalling. Medicines without number have been used, electricity, courses of massage prescribed by some liberal minded regular who thinks "there is something in deep rubbing to help the circulation"; the rheumatic, you remember, was "fired" to his great pain, but no permanent relief, and so on and on. Such endless suffering seems cruel when you stand and think of it, and you wonder if it has always been so, and, more than that, if it always will be so. Since the days of survival of the fittest in prehistoric times there has been much sickness in the world and the remedies have varied with the enlightenment of the ages. Many of them have been too disgusting to modern sentiment to name in public print; some have been helpful, as the steam bath, exercise, selected diets, and rubbing with oil. But when you think over the list of invalids and semi-invalids of your acquaintance, you realize there is still much to be desired, and wonder if something could not be found even now to help them. Well, perhaps it might if you look in the right direction. The necessary thing, the thing that medicines so rarely seem to touch, that surgery is all too often called in to help out, is the removal of the cause of disease; but this does not mean the removal

of part of the patient's body. He needs his body, all he has of it, for Dame Nature did not give any of us too much physique. What, then, can be done? Let us look over your friend's cases a little.

There is the woman with the gall stone colic. You know she has been ailing a long time. The attacks of pain begin in her right side and radiate all through her abdomen, right chest and shoulder; the pain usually brings on nausea and vomiting, and you have seen her after the worst was over lying back with a weak pulse and anxious face. Last summer the attack was unusually prolonged and afterwards she had jaundice, even the whites of her eyes were yellow. She is not so strong this year, but she is still rather fat with a soft, flabby sort of flesh. Medicines have not helped her at all, and she takes laxatives for her bowels all the time. Could the cause of all this be removed?

Ask your local osteopath and he will say, What makes the gall stones? You don't know? Well, the bile has been chemically changed from what it should be; a substance called cholesterin is no longer kept dissolved in the bile and this deposits in crystals on any debris that may be present. The thicker the bile, the more readily cholesterin deposits in its solid form, just as sugar in a concentrated solution will crystallize out on a string forming rock candy. As for the debris, there is a catarrhal or inflamed condition of the membrane lining the gall bladder and ducts and there are plenty of worn out cells thrown off to float around in the bile and form nuclei for the stones. Lime salts also form part of the stones, which are very hard, greenish or brownish things, sometimes rounded and sometimes with flattened sides where they have rubbed against each other. Your friend has seen plenty of the smaller ones after the attacks of colic have passed off.

"Why is the bile changed in its chemical composition?" says your osteopath. Well, the medical doctor told the sufferer, no doubt, that her habits were sedentary, that she ate too much starch and sugar, overloading the liver, and that she must bathe, exercise, and take laxatives to throw out the excess of food. But does that seem a satisfactory diagnosis to you? Think of the Irish peasantry who live almost entirely

on the starch of potatoes. Did you ever hear that the nation was especially afflicted with gall stone colic? And you can no doubt recall a number of men who are very heavy eaters in general but have no such trouble. Therefore, we must look further for the cause of your friend's condition, and we find it in the mechanical structure of her body. The osteopath makes a careful and searching examination of the patient's joints, all the complicated joints between the vertebrae in the spine, between the ribs and vertebrae, and even between the ribs and the breast bone and its cartilages in front.

"Here," says the osteopath, "we can find a cause for the altered bile. Here, and here, and here, are places where the nerve trunks leave the spinal canal to supply the liver and its blood vessels with the vital impulses that make things go. Remove these nerve impulses by cutting the nerve trunks and the organs will die; make the nerve impulses abnormal in their character by irritating the nerve trunks and the organs won't work right; there will be changes in the quantity and quality of blood supplied, and changes in the secretions furnished to the rest of the body."

ERE is the trouble with this woman," he continues. He presses deeply on the spot indicated and the patient flinches, exclaiming, "Why, I didn't know I had any sore spot in my back there!" No, of course she didn't know it; the hurt is of long standing; the connective tissues around the joints have hardened, the acute inflammation has died out and with it the local pain. But there is still irritation there, as she can feel directly the osteopath puts the joint to the test by trying to make that particular one move. Just let him work on the spine and ribs for a while. The bones are adjusted to their normal relations, the spine becomes limber, the pain leaves the side, and the bowels begin their daily labor in the interest of domestic economy, without grumbling or shirking in the least. She has a few more attacks of pain, but they are lighter. The osteopath uses manipulations to relax the gall duct and heat, perhaps, to relieve the pain; a few more stones escape and then no more form! The secretions are normal and there is no chance for them to grow. The woman is cured when the cause is removed and it is not necessary to cut her open to get at it either. What a relief for the relatives and friends, particularly for the relatives who might have had to pay the hospital bills if the suppuration which the doctors threatened had become an actual fact.

And now you think you will see that dyspeptic school teacher, for if she could get to work it would be such a lift for her nephew, Henry, a real good fellow; too bad he should have such a load to carry. You know that Henry said she has had a great deal of backache, and why may she not have some of these twists irritating the nerves supplying the stomach? It seems that the whole body is supplied by nerves and that they all originate somewhere in the brain and spinal cord. You begin to recall the physiology you studied in your school days and many things that your cousin, a physiologist of high repute among the colleges, has told you. Yes, the nerves are the king tissue of the body, as he puts it. The nerves governing the processes of the glands and the nutrition of the tissues, as well as those controlling the muscles

of the body proceed from the spinal cord and pass out through the openings between the adjacent vertebrae. There are also connections at these openings with nerves to the arteries that determine the contraction or dilation of the blood vessels, and so regulate the blood supply to any organ according to the demands of the body, you remember. Really, physiology is a wonderful science and these osteopaths seem to know it pretty thoroughly, too. They must have a very practical grasp of its problems to handle their cases as they do.

So you reach the home of Henry and his aunt and give an enthusiastic description of what you have seen the osteopath accomplish. It is difficult to convince them because Aunt Martha has tried so many things and none of them did her any good. She has spent so much money and there is no more to spend. But she admits her back has ached often, especially when she was tired out late in the afternoon at school, and finally Henry insists on her trying the new doctor. It would be such a help if she were better able to be about the house and to do more of the work. That would be worth while, he says; and so Aunt Martha makes the trial.

And you are thankful to find that it was well worth while after she has taken the treatment two or three months. There were twists in the back, just as you thought, and disturbed physiologic processes were at the bottom of her illness. Of course it has been running on now so many years you could not expect a cure in three weeks' time; you realize there must have been considerable changes in the composition of the tissues and Nature works rather slowly in rebuilding where her work has been badly torn down. But Aunt Martha improves so much that she is able to take a school again and keep it. She has to be careful as to what she eats. She has to go back to the osteopath now and then for a few more treatments and advice as to diet, exercises, and hygiene, but what is that compared to her former expenses at springs and health resorts? She is so thankful to be at work that she does not mind a moderate expense to keep her in health, and she is so grateful to you that she tells you all about her case and cure.

It seems the trouble began years ago with acute attacks of indigestion after lunch. She ate hurriedly; she did not eat wisely, but rather too well; she had some falls besides, and her backaches began after the day she slipped on a wet crossing when getting off a street car. It was quite a bad fall, but she did not think it injured her at the time; the lameness soon disappeared. Gradually the acute attacks became frequent; the fermentation and decomposition of food in her stomach was a constant thing; she was much annoyed by the formation of gas; lost her appetite because she nearly always "felt full," and she realizes now that she lost her temper too and was irritable and peevish, first with the children in school and later with Henry's jolly little youngsters. But that is past, and the osteopath explained the matter on grounds that, with your knowledge of the science of physiology, you can see to be sound.

The nervous system, which controls the functions of the body entirely, is composed of regiments of separate cells that reach out little branches or threads of nervous fibers and touch each other. Impulses pass along from one cell to another in much the same way that buckets of water pass from hand to hand down a line of men who are fighting fire in the old-fashioned bucket brigade. In this way sensations are carried over a line of cells from the skin to the brain, and impulses go back from the brain over another line of cells to the muscles, or whatever organ they are to affect. It seems, moreover, that impulses are in one way something like people. The oftener they travel a certain road the more open and easier to follow their path becomes. If a man is in the habit of stroking his moustache, the path followed by the nervous impulses to his muscles becomes so easily traveled that his will has nothing to do with the matter at all; he performs the act involuntarily, scarcely knowing that he does it.

So it is when disease lays hold of any part of the body, as in the case of Aunt Martha's stomach. The oftener the irritated impulses pass over the nerves the easier they go. Her brain received the sense of the irritation starting in her stomach more often and more strongly until there was a state of excitement in her

brain also, which she could neither understand nor control. No wonder she was cross; she did not know why, she only felt so, and her feelings expressed themselves in spite of her. That is the way, too, that chronic disease breaks down the nervous system. It wears out paths for its abnormal impulses until they travel easier than the normal impulses can; while the irritation in the organs increases and becomes harder to control, until at last the trouble gets altogether beyond cure. You think over other chronic cases you know of and realize that they show much the same increasing irritability of temper as the disease progresses and smaller and smaller exciting causes are sufficient to provoke attacks of pain.

THE trouble in Aunt Martha's stomach had much the same sort of an origin that the trouble in her brain had. The stomach is supplied directly by nerves from a large ganglion of nerve cells in the abdomen, the solar plexus called the "abdominal brain" by Byron Robinson, because it controls the functions of the abdominal organs much as the brain governs the body. The abdominal brain receives its controlling impulses from nerves coming from the spinal cord through the splanchnics, great nerve cords formed by the union of many strands issuing from between vertebrae in the upper back, all the way from the fourth or fifth down to below the shoulder blades. A great nerve center like this does not behave abnormally the first time some improper impulse reaches it. Nature tends to the normal and all the vital forces of the body resist derangement as long as there is any vitality left in them. But when a constant stream of irritated impulses is sent in to the solar plexus it finally becomes surcharged with the excitement; it cannot equalize things any longer, and the irritation escapes through the nerves sent out from it to the stomach and other organs. Then the stomach becomes deranged; its secretions are not made right; its blood supply is not what it should be, and it becomes inflamed. All the organs are under the same law in this respect; a normal controlling nerve impulse is necessary if they are to do their proper work, all the more as the nerves control the blood supply through the arteries as well as the secretions and muscular movements of the organs themselves.

So Aunt Martha laid a foundation for her trouble in that slip on the wet pavement; she got a strain in the region of the splanchnic nerves that kept up a continual irritation of them and this accumulated in the solar plexus until it could resist no more; indiscretions in diet, overwork, and colds, caught from wet feet in winter added their influence to produce the final result. There was a long series of acute attacks until finally the trouble became chronic and the end of her working days seemed to have arrived.

The osteopath corrected the twists in the vertebral joints, no dislocations, only what you might term old

sprains with a slight malposition of the joint and hardening of the tissues around it, and so stopped the influx of abnormal impulses to the solar plexus. He toned up the nerves by his manipulations, stimulated the solar plexus to regain its lost equilibrium by working down on it through the abdominal wall, increased circulation all through the abdomen and elimination through the kidneys and bowels, and finally brought the case to a good conclusion, though not a perfect restoration. Aunt Martha often says, "If I had only gone to him with the first acute attack, I might have been entirely well."

Those acute attacks coming on more and more often were a stage of the disease that could have been arrested before tissue changes had been carried far. The nerve paths had not been worn out deeply nor the centers greatly disturbed and turned from their natural habits. The osteopath in the first place could have allayed the slight fever, removed the structural cause of the trouble, toned up the muscular walls of the stomach, warned her of the results of her hasty gulping of food in the noon recess, and cured her before it was too late. As it is, she is very thankful for the relief experienced after she had given up hope, and her advice to her friends is always: "Don't wait for the trouble to become chronic like mine; go while there is opportunity for a complete and radical cure."

Then you think of the man with the rheumatism. His knees are in bad shape now; the capsules of the joints and the ligaments around them are thickened, the joints "creak" when he moves; there is much stiffness and almost constant pain; worse than all else, his heart is affected and the doctors say one of the valves is leaking a little for they can hear a murmur there. No use to talk osteopathy to him. Why, he had massage for weeks last winter and the man who rubbed him couldn't move the joints at all, the pain was so acute. Moreover there is the heart; it must be kept quiet, nothing but rest can help it now.

Don't be too sure of all this. You might just ask the osteopath what he thinks of it and if any such cases have been helped so far as he knows. Yes, says the osteopath, many have been very greatly benefitted and even cured. You see the blood is in a very bad

condition. The engineer has been through severe exposures to the weather and exhausting physical strains while about his work. The skin was chilled, internal congestion set up, elimination was checked and waste matter retained in the body. The first acute attacks were recovered from because nature was still able to assert herself, and after rest and dieting she threw off enough waste so that the man got around once more. But he was exposed again, and exhausted again; one attack brought on so much inflammation that the lining of the heart was affected, and its muscles somehow strained. Now the elimination of waste and poisonous matters from the blood is very inefficient, and the trouble has settled principally in the knees because the legs are the most dependent part of the body and the blood must run up hill all the way to the heart.

As to what we can do about it now, these are the facts: First and foremost we can help out the elimination of the waste matter clogging the system everywhere and principally about the knees. Not only will the liver and bowels yield to osteopathic treatment, but the kidneys can be stimulated, too. Moreover, it is most likely that there are some maladjustments along the spine affecting these organs, just as we found them in the case with gall stones; and if these are removed, a serious hindrance to a cure will be out of the way. The heart is by no means out of reach of osteopathic treatment, for the nerves supplying it are easily taken in hand; they leave the spine in the upper region of the back, just below the base of the neck, and they control the blood supply to the heart and its muscular action also. Do not believe such a case is beyond osteopathic treatment; only try it for two or three months. The massage did nothing for the man's joints; it adjusted nothing. It affected the surface circulation somewhat, that is all.

So your friend tries the osteopath for the rheumatism, and he is surprised. It was true that some sort of twists in the spinal joints affected the working of the kidneys. The osteopath finds sore spots again, but lower down than the ones in the gall stone case. He stretches and bends and twists and turns, and the back grows limber; he takes a careful position, tells

the patient to relax completely, and does something that produces a grating noise in the spine. Things begin to go differently after that. It is evident that the kidneys work better; so do the bowels. Then he tenderly limbers up the stiffened knees and works up the muscles. In one leg they had begun to shrink a little, but now they fill out again.

It is the heart that surprises you most, though. You thought nothing could be done there, but the osteopath explains, as he works upon the different spots:

"Here is the source of nervous impulses to the heart; there is a twist between the bones here and it is very tender. Here is another sore spot in the spine; there is a little twist here, and one here. These interfered with the heart somewhat by irritating its nerves. By themselves they might not have caused severe trouble, but there was the exposure, the overwork, the bad elimination, and all together it was too much. Now we will correct this and relieve the heart nerves."

He does so and the cardiac muscle strengthens and tones up. Some strain or distortion is evidently corrected for the murmur stops!

"Oh, yes," says the osteopath, "that has happened in many cases under osteopathic treatment before; it is no new thing."

Altogether the man is so much improved that he can work again. He cannot take the same severe exposures and must save himself a good deal, but he says, "Oh, if I had only gone to the osteopath in the first place." And that is the point of the matter.

IF HE had only taken the early acute attacks to the osteopath when he first had the fever and the tender joints, so much more might have been done. Removing the twists, or "lesions" as the osteopath calls them, would have stimulated elimination at once. The tissues would not have been so badly diseased, and particularly the heart could have been relieved and its action slowed down so that it would not have sustained any permanent injury. That would have meant much for the man's future strength. And it is true of any other acute disease that leaves heart trouble behind it. "An ounce of prevention is worth a pound of cure" every time, and you go away determined that when an acute disease seizes you, the osteopath shall be the first doctor in the field.

So osteopathy grows apace in your native city as well as all over the country. It is no longer an innovation in the science of therapeutics but a terribly needed fundamental step in the healing art, and you learn more and more of the truth of its principles as time goes forward. Aunt Martha goes with her friend suffering from bronchitis to the osteopath, and you hear much from the enthusiastic ladies of the new branch of science. There were twists in the ribs which had caused disturbance in the nerves to the bronchial tubes and lungs. The ganglia of nerve cells supplying these structures lie right along the sides of the vertebrae over the heads of the ribs, and can hardly fail to be irritated when the ribs are twisted at their heads where they form joints with the vertebrae in the back. Aunt Martha's friend improves weekly as her organs resume natural operations, and she is much more impressed by this fact than by the information she obtains.

Aunt Martha tells you all about it, and also about the Research Institute established by the osteopaths at Chicago. You learn that osteopathy is no mere fad; that much of its theory is already proved by scientific experiment and that more proof is constantly forthcoming. Inflamed areas in the organs have been shown by experiments on dogs to follow just such twists between vertebrae and between ribs and vertebrae as your friends have suffered from; little hem-

orrhages have been found in nerve cords and ganglia showing conclusively how they are injured by the displacements; the tissues of the kidney were found cloudy and containing little hemorrhages after displacements artificially made in the animals. It is a surprising story, for your first impression, gained from the family doctor, a good old regular, was that there was nothing whatever in the new treatment but a craze for rubbing and some enormous quackery of a semi-mystic nature. You hope your cousin, the professor of physiology, will take it up; there are physiologists of repute connected with the Research Institute already, and the new field is wide, it seems to you.

Furthermore, all cures are by no means slow. There lives a man on your street suffering from what has been called chronic sciatica. He takes the treatment and the pain stops after the third manipulation; he is cured after the fifth, and the pain never comes back. He finds that he had a twist in the joint between the pelvic bones, and that he learned of it just in time to avoid a settled neuritis which would finally have deprived him of the use of his leg.

A man who has had chronic diarrhea gets well in three treatments. He had a "lesion," he tells you, in the upper lumbar region, and his lowest rib was twisted down toward the pelvis. He knew there was some soreness in his side but the doctor told him it was a reflex from the inflammation in his colon, and of course there was nothing to be done about that. Now he gets the joints adjusted, the soreness in the side leaves, and the diarrhea wears off with nothing more done for it. In a few weeks he is well and goes to work again, a hearty, healthy, happy man.

There is a young lady in the next block with considerable talent for music and a really fine voice. She was taking lessons and expected to go to Europe, but a chronic laryngitis destroyed her hopes. She goes to the osteopath and learns that she has lesions in her neck; the vertebrae are slightly twisted from their natural position and do not have their full range of movement. There have been several falls or strains that might account for it; of course, she has had a good many colds and a stiff neck with each one. Now the joints are straightened, the infiltration worked out

of the tissues in the throat, and her voice comes back; she begins to plan for Europe once more.

You rejoice with all your friends. With such a hope as this for the health of the human race, the world seems a brighter place to live in. There will not be so much of the old wail. "Sick, sick, and too—too sick, and sick and like to die" now. People will learn to keep their structures properly adjusted and the functions will run on in a normal fashion. Some day people will probably get their joints looked over by a competent osteopath as a measure of precaution, just as they now go once in a while to a dentist to see if something needs to be done and then do it in time to save the tooth. That is no doubt the wise plan: to prevent trouble before an extensive cure is necessary, and live without sickness as much as one may, that life may be as pleasant and death as nearly painless as possible.