

The Journal of Osteopathy

March 1914

Vol. 21, No. 3

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Published monthly by the Journal of Osteopathy Publishing Co., Kirksville, Missouri.
 Yearly subscription \$1.00 per year in advance; Canada \$1.10; Foreign \$1.25. Notice of
 change of address should be accompanied by the old address, to prevent error in filing
 Entered at the Post Office at Kirksville, Missouri, as Second Class Matter

SINGLE COPY 10c. - - - - \$1.00 PER YEAR

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The Journal of Osteopathy

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Vol. XXI

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EDITORIALS

Moonbeam Baby Drops in at Chimney House

While learned astronomers all over the country focused their telescopes on the moon and engaged themselves in superior contemplation last night, Baby Bunting made her appearance at "Chimney House" in Lake Bluff.

Her mother and father, Mr. and Mrs. H. S. Bunting, call Elizabeth their moon baby, and look friendly on the eclipse, for she was their first child in sixteen years of married life.

"Chimney House," their home, has a story blended with the Mother Goose rhymes and the tales of Hans Christian Anderson. Some fifteen years ago it was built by J. J. Murdock, a theatrical manager, whose wife was billed thruout the country as "The Girl With the Auburn Hair." Her real name was never blazoned on the bills. The house stands at the corner of Sheridan road and Maple street. As the years went on the young couple found they were not quite satisfied. Mr. Murdock thought and Mrs. Murdock thought, but it was some time before they discovered their trouble.

"I know the trouble with us," said the young wife one day. "We have lived here for sixteen years and have had no children. It is because this house has no chimneys. Of course, there are one or two, but no one can see them, so what good are they?"

Mr. Murdock saw the point, and the next day masons were busy making a nice big chimney on the outside of the house where it could best be seen. It was such a chimney as to invite any stork to enter.

Before the chimney had assumed a worn appearance, strange to say, two little Murdockes were playing about the house. But soon

the family was called to another part of the country, and new residents occupied the house.

Other families came and went. All benefitted by the blessing that had been placed on "Chimney House."

Several months ago neighbors noticed the chimney on the Bunting house had been repaired. It had been replastered and repainted. Mr. Bunting was also seen to go about humming and with a smile for all he met.

Then scientists announced an eclipse of the moon and the sun for last night. They said it would be the first for some time, and perfectly visible to all. People everywhere recalled legends about this rare occurrence. They wondered what good fortune it would bring.

This morning a little knot of suburbanities gathered at the Lake Bluff station. They discussed the eclipse. They wondered at the possibility of such a phenomenon, and wondered what it had meant.

In a short time they saw Mr. Bunting coming toward them. They noticed that he was beaming and smiling all over. His pockets were bulged out, and in his hands he held cigars.

And then it was that they knew what the moon had brought.

Chicago Evening Post.

Editor Journal of Osteopathy:

Compliments
Department of
Gynecology

Dear Sir:—I would like to say a few words in regard to the work that is being done in one of the departments at the American School of Osteopathy which impressed me much during my one month's post graduate work last fall at the above school.

The subject I have in mind is Gynecology and I want to say that the way this subject is being taught and presented to the student body is surely instructive and comprehensive in every respect.

In the gynecological laboratory the subject is taken up and made so clear and plain that every one who attends these clinics must feel his previous lack of complete understanding of this branch of study and practice.

I feel sure that every osteopathic physician in the field today would be repaid many times over for time and money spent in taking advantage of this opportunity to become more proficient in this

part of our practice, and by spending at least a month or two each year in these clinics encourage and stimulate the people who are putting forth their best efforts to bring this department of study up to the highest state of perfection.

With the real patient before them and with Dr. Ella D. Still diagnosing and pointing out the diseased and deranged tissues and structures—outlining her method of handling each individual case, and going into the minutest detail of how the different conditions should be treated,—one must come away better qualified to take up his or her work and be far better prepared to relieve suffering humanity.

We surely owe it to Dr. A. T. Still and Dr. Ella D. Still, who have given the best years of their lives to incessant study and hard work that a science and system of healing those diseases peculiar to women might be handled and successfully treated, by going back occasionally and by our presence show them that we in a measure at least appreciate their unselfish efforts.

John A. Bell, D. O.

The Still-
Hildreth
Sanatorium

The Still-Hildreth Osteopathic Sanatorium began receiving patients on the 2nd day of March. We are pleased to learn that the Sanatorium opened under the most favorable conditions and the indications are very flattering for a good business. A number of patients have already been received and applications are being filed every day. Several individuals from Kirksville have visited the new Sanatorium during the past two weeks and they are all more than delighted with the new institution and give very flattering reports.

In the April issue of the Journal of Osteopathy, Dr. A. G. Hildreth, Pres. of the Still-Hildreth Sanatorium, will tell something of the nature of the work that is being carried on in that institution.

We wish the new institution the greatest success and feel very much encouraged over the prospects of the good it will be able to do suffering humanity and the osteopathic profession at large.

SCOLIOSIS

By DR. GEORGE LAUGHLIN, M. S., D. O.

Professor of Osteopathic Practice at A. S. O.

In presenting an article upon lateral curvature of the spine I wish to state at the outset that the subject is a difficult one and that the details which are taken up in this article may be tedious to follow. I have been treating lateral curvature for a period covering about fourteen years, but have not had very much success in the correction of curvatures of the fixed lateral type until within the past two years, since I have been using what is known as the Abbott method. I have given the pathology of scoliosis considerable study and I think I have a fairly accurate conception of the pathological conditions that exist in connection with this deformity. I do not claim any originality in what is said in the following article, as to the causes of curvature and the treatment.

Classification of Curvatures

Although this article is to deal with scoliosis entirely, I desire to give a classification of curvatures so that there will be no confusion as to just what we are discussing. Curvatures of the spine are of two general classes: first, those that occur without any apparent disease of the bone; and, second, those that occur as a result of bone disease. Scoliosis, or lateral curvature, belongs to the first class. Almost always the deformity which occurs in connection with scoliosis is not due to primary disease in the bone, but is due to pressure. Nearly all curvatures of the first type, that is, those that occur without bone disease, are lateral curvatures with of course an associated deformity in the bodies of the vertebrae and thorax. Occasionally, however, curvatures of the antero-posterior type may belong to the first classification. These do not come within the scope of this article. There are several diseases which are responsible for curvatures belonging to the second class; that is curvatures that result from disease of the bone. The most common disease attacking the bones where curvatures result, is tuberculosis. In this disease the bodies of the vertebrae break down as a result of the tuberculous process in them, and the result is a posterior curvature, usually of the angular variety. Curvatures of this sort are usually readily recognized at the first sign of deformity, on account of the character of the deformity, and the associated symptoms and physical signs.

Rickets is another disease in connection with which curvature of the spine develops. The curvature is usually of the posterior character involving the whole spine in a posterior curve. Never, however, so extreme as in tuberculosis, but usually more general. As a rule the age of the patient, and evidence of rickets found elsewhere in the body will enable one to make a correct diagnosis.

Spondylitis deformans produces in a general posterior curve a rigidity. Osteomalacia, or softening of the bones often results in a very marked deformity of the posterior variety combined with

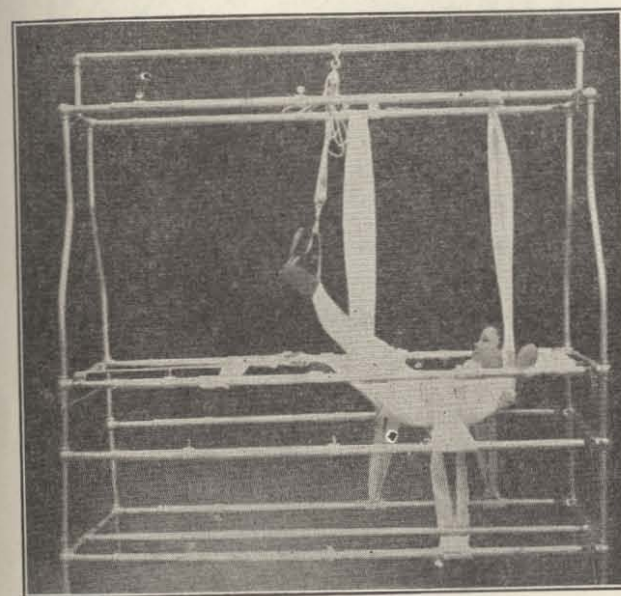


FIGURE 1.

This shows the Abbott frame with patient in position for application of cast in case of right dorsal curve.

some lateral curve. Fracture of the spine is a cause for posterior angular curve: the history of injury, and the rapid onset of paralysis, which usually accompanies fracture, will enable one to differentiate this condition for tuberculosis.

Any inflammation of a chronic or subacute character, involving the bodies of the vertebrae, may result in a posterior or even lateral curvature, or rarely postero-lateral curvature. As an example of this type I might mention the typhoid spine, a condition of inflam-

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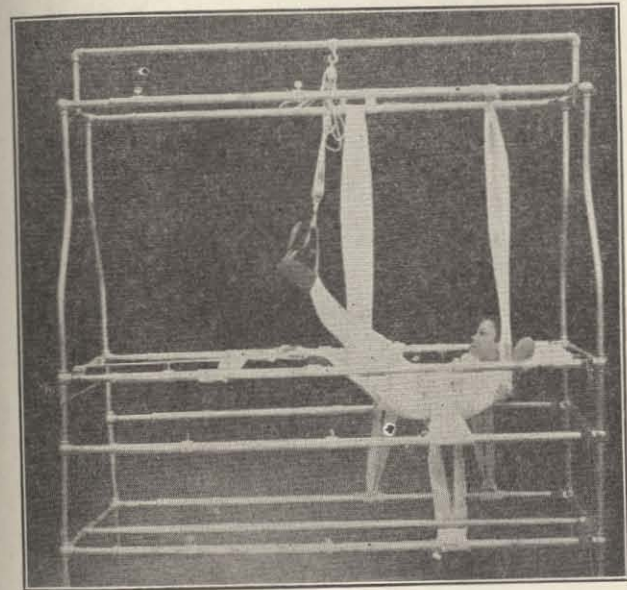


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mation of the spine, following typhoid fever, which results in deformity and limitation of motion.

I have given this classification simply for the purpose of giving

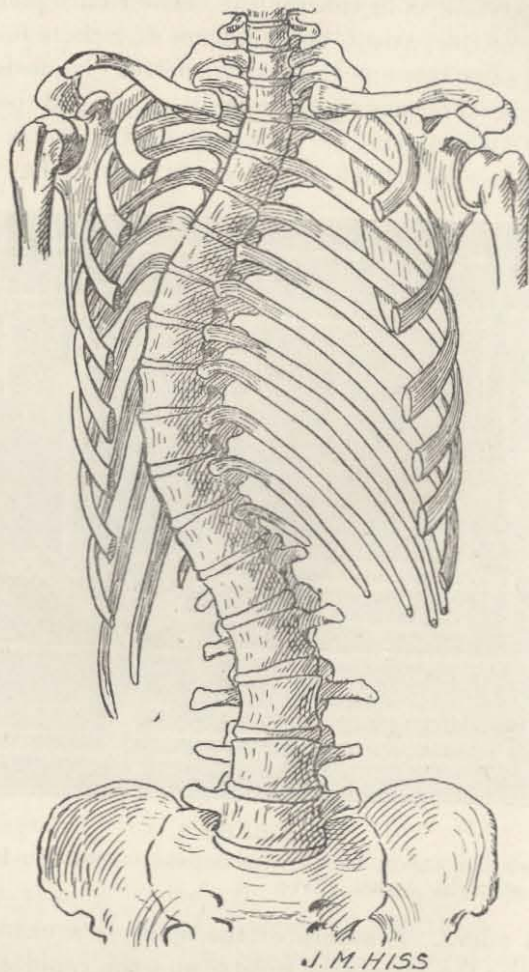


FIGURE 2.

Drawing made from radiograph in a case of lateral curvature in a girl of thirteen. This illustration shows the rotation in the vertebrae, slight deformity in the vertebral bodies, and a very marked deformity in the thorax. Case is responding nicely under treatment, and I think will be overcorrected without much difficulty.

ing the reader a general idea of the character of various spinal curvatures. This article, however, deals only with the cause, pathology,

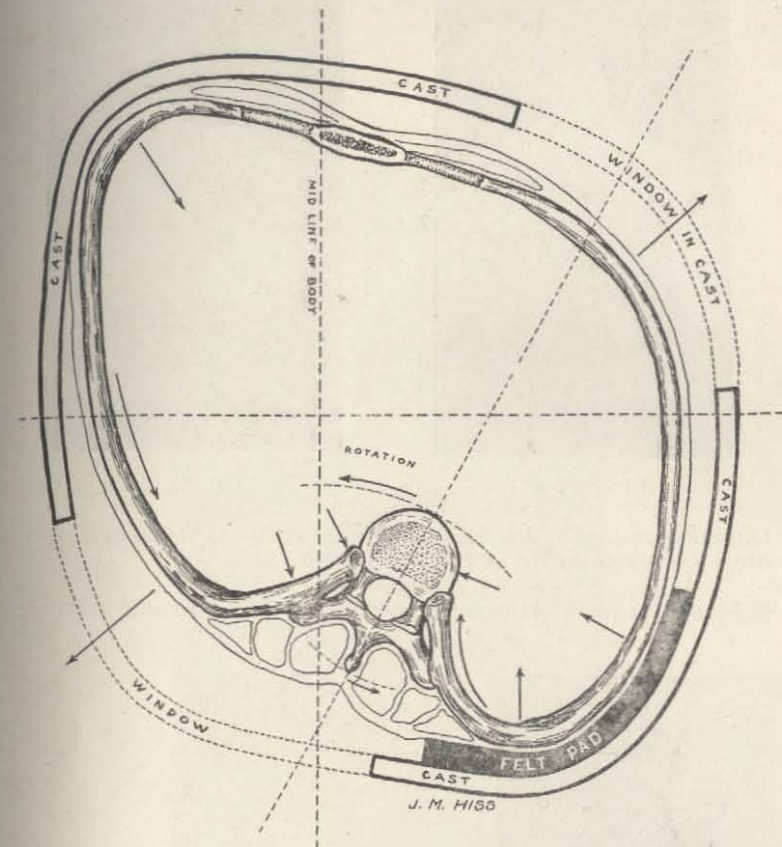


FIGURE 3.

Figure 3, illustrates the deformity in the thorax and the position of the body of the vertebra, indicating rotation in a case of right lateral dorsal curvature. In the treatment an attempt is made to bend the body to the right in the dorsal region, by lifting the left shoulder and depressing the right one, and by side pressure against the convexity. Pressure is also directed against the angles of the ribs on the right side. If the left shoulder, which is lifted, is pulled forward, and the right shoulder, which is depressed, is pulled backward, and this position maintained, and at the same time the pressure exerted against the angles of the ribs on the right side so that the force is directed forward, this will have a tendency to produce a curvature of the spine to the left and to produce a deformity in the thorax, which is the opposite to the deformity we have in the illustration. Illustration also shows the holes which are cut in the cast so as to allow expansion in these two directions, as well as showing the direction of force as a result of pads being placed over the angles of the ribs on the right side. Arrows in the illustration show the directions of the various forces.



FIGURE 4.



FIGURE 5

Figure 4.*

Lateral curvature to the right involving entire dorsal region, with compensatory curvature to the left in the lumbar.

Figure 5.

Same patient in flexed position showing marked deformity in the thorax.



Figure 6.

Figure 6. Same patient after treatment by the Abbott method. Further treatment indicated to affect an overcorrection, altho there has been a marked improvement already.

*Case treated by Drs. Long and Sorensen of Toledo, Ohio.

and treatment for what is commonly known as simple lateral curvature, altho I believe that the treatment, as outlined in this article for simple lateral curvature, might also apply to some cases of postero-lateral curvature, even where the condition is a result of chronic

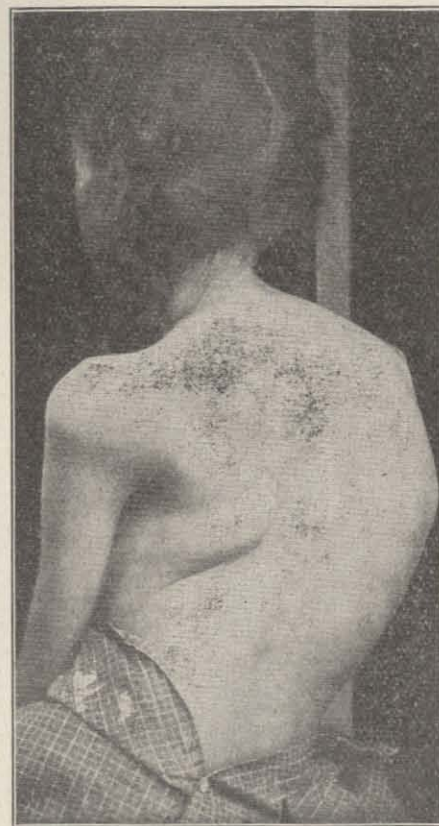


FIGURE 7.

No results were secured in this case, altho two casts were worn, and a vigorous effort was made to effect an overcorrection. The patient was poorly nourished and developed pressure sores. The deformity in this case is considerably worse than is indicated by the photograph.

inflammation and where the inflammation has subsided without bony ankylosis, or without marked fibrous ankylosis.

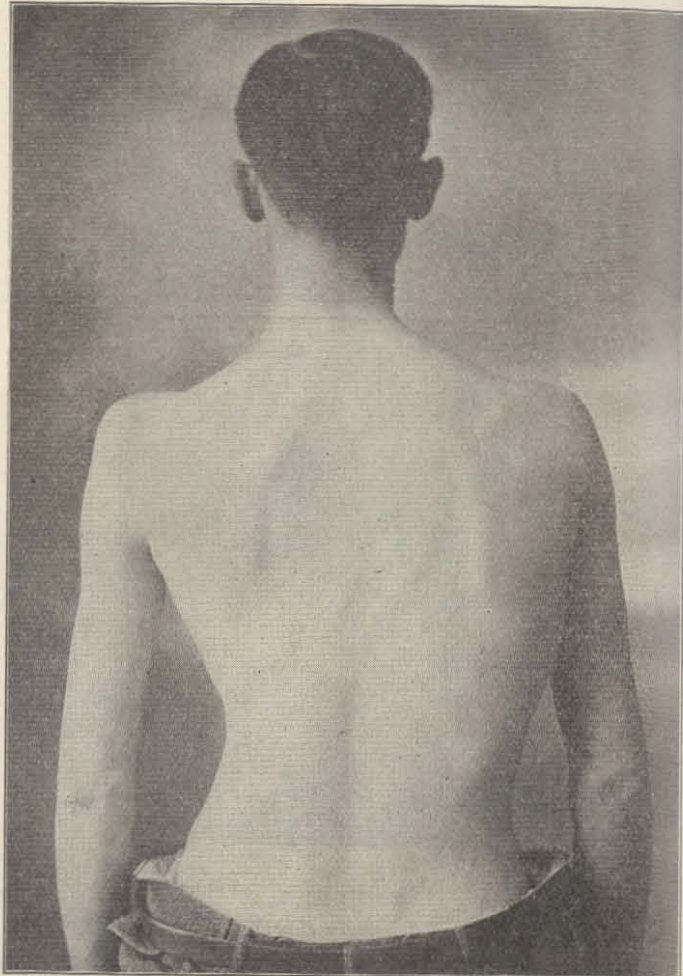


FIGURE 8.

Figure 8. A right dorsal and left lumbar curve before treatment by the Abbott method.

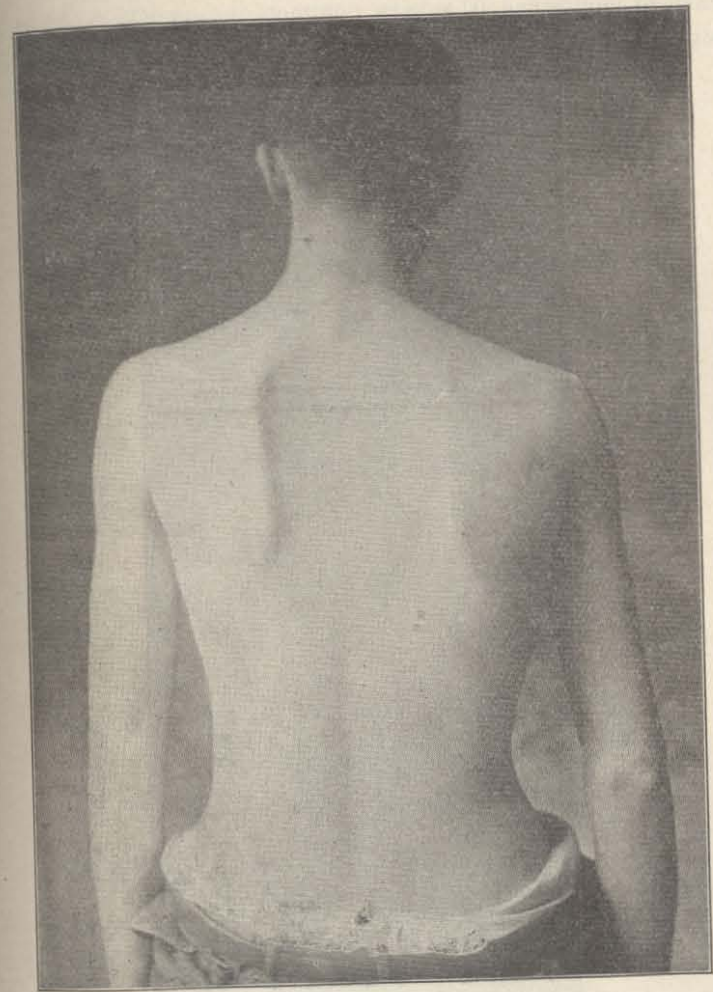


FIGURE 9.

Figure 9. Shows same case after treatment covering a period of four or five months, in which two Abbott casts were used. The improvement is easily noted, but I will state that the treatment was not continued long enough in this case to effect an overcorrection and no support was used to maintain the correction which we had made. The result is that the deformity has recurred to a considerable extent.

Scoliosis

Lateral curvature is a very common deformity. As a rule it develops in childhood, beginning first, usually I think, with a phy-



FIGURE 10.

Right dorsal curve in a girl of fifteen; case now under treatment wearing second cast. Spine is practically straight and deformity in the ribs greatly improved. Further treatment, I think in this case will bring about an overcorrection.

biological curvature, or a slight curve the result of faulty position which is maintained for a considerable length of time, or where the same position is repeated several times daily. As a result of this

strain on the thorax, the physiological curvature ultimately becomes a curvature of the fixed lateral type with associated deformity in the thorax. A physiological curve is one that disappears when the patient assumes the normal position. A functional curve is one

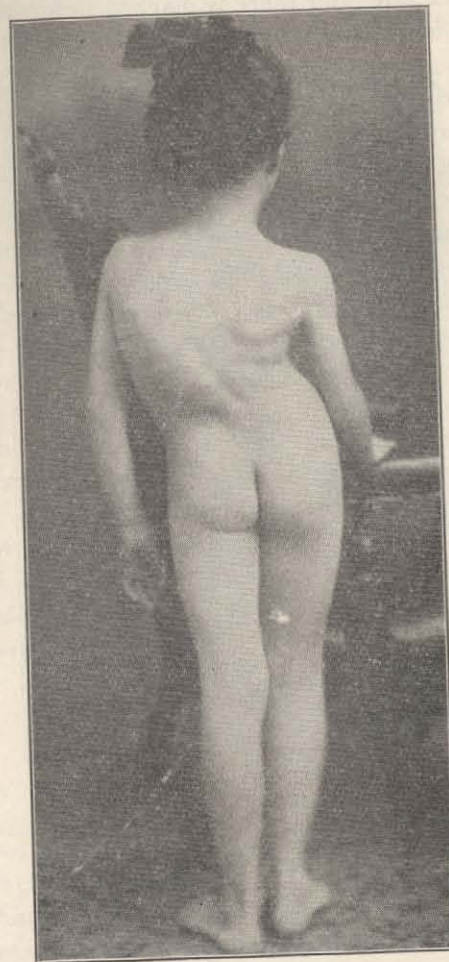


FIGURE 11.

Figure 11. A case of left dorsal curvature, the result of infantile paralysis.

which can be readily corrected by side bending or side pressure. A fixed lateral curve is one that will not disappear when the patient assumes normal position or even when the patient bends the body to

the opposite side of the curve; nor can it be completely obliterated by any method of manipulation.

In a fixed lateral curvature, there is a bending to the side of the spine, there is a rotation of the bodies of the vertebrae to the prominent convex side, and there is marked deformity in the thorax. The ribs on the convex side are depressed outward and toward the spine, the angles are made more acute, and the ribs rotate backward. All of these conditions result from increased tension of the soft tissues along the midaxillary line of the convex side. This causes a posterior bulging of the ribs on the convex side and a consequent depression of the cartilages and ribs in front. On the concave side there is a bulging of the thorax in front and a depression behind. At the same time the ribs lose their normal posterior angles and do not bend acutely until they reach the lateral line of the body.

It would appear to one that has not looked into the matter thoroughly, that the chest capacity would be larger on the convex than on the concave side, but this is not the case, as shown in Figure 2. The depression of the ribs on the convex side, the sharpening of the angles on the convex side, the rotation of the bodies of the vertebrae to the convex side, all serve to reduce the capacity of the thorax on that side. Measurements from the spinous processes, at the middle of the curvature, to lines drawn at right-angles to the sides of the body will show that the distances between these points are frequently twice as great on the concave as on the convex side.

History of Scoliosis

In medical literature, as long ago as 2500 years, references were made to lateral curvatures, although the character and nature of the deformity was not known until a comparatively recent time. The name "Scoliosis" was given by Hippocrates, and in his writings he makes references to curvatures, but it would appear that he made no distinctions as to the various forms of curvature and the causes leading up to them. At the time of Hippocrates, and for many centuries afterward, curvatures were considered as dislocations, and

about the only treatment advocated during this period was that given by extension or by pressure with the hand or by a lever. In most instances, of course, the treatment was very crude and even rough and apparently without beneficial effects. It has been only within the past two or three hundred years that any effort was made to correct curvatures by the use of jackets, but as a matter of fact,



FIGURE 12.

Figure 12. Same case as Fig. 11 entirely corrected after wearing two casts. Treatment covered a period of about six months.

more progress has been made in the last ten or fifteen years in the treatment of lateral curvatures, than was made in all time previous to that, so far as I can determine from references in medical literature on this subject.

Causes of Lateral Curvatures

A.—Faulty Posture and Lack of Muscle Tone:

I have no doubt that the principle cause for simple lateral curvature is faulty posture, repeated frequently enough to throw

such strain upon the muscles that maintain the spine in its normal position that the muscles do not readily regain their tone when the patient again assumes the normal position. The result is that the body gets out of balance and a curvature occurs as a compensatory condition to maintain the body equilibrium. As an illustration of how a right lateral dorsal curvature may develop, the following will serve: I do not mean to say, of course, that all curvatures are developed this way, but this illustration will serve to demonstrate how they may develop, and how I think they frequently do.

A child sitting at a desk, which is so low that in attempting to write with the right hand upon a pad on the desk, will be compelled to stoop over; the right forearm, of course, resting upon the desk, but the left hand only is upon the desk. In this position there is flexion of the spine, side bending of the head, shoulders, and upper part of the trunk to the left, on account of the right shoulder being higher than the left, and some rotation of the thorax to the left on account of the position the child assumes in attempting to write. This produces a physiological curvature to the right in the dorsal region.

What are the results? In a strong healthy child there may be no damage even if the position is assumed repeatedly, but I am not certain that a curvature could not develop as a result of repeated faulty position even in a normal child. Many children are poorly nourished, their muscles when overtired, do not readily assume normal tone. The ultimate result of this oft-repeated faulty posture will cause a physiological curve to terminate in a curve of the fixed later type. Curvature of the spine when started in a child has a tendency to progress, particularly if the child is poorly nourished. Later on in this article I will discuss how curvature and deformity in the thorax are produced as a result of faulty position.

E.—Bone Softening:

I am satisfied that some cases of lateral curvature, with marked deformity in the thorax are due to a process of bone softening involving the bodies of the vertebrae and the ribs. It seems to me that this is a condition which is not classified among the known diseases of bone, on account of the fact that it is not a result of

bone inflammation; nor is the condition accompanied with any symptoms that would point to any inflammatory or infectious process involving the bone or even the surrounding soft tissue. It appears that in some of these cases deformity develops very rapidly and later on the softening process ceases and the bone again becomes normal as far as consistency is concerned. In these cases the general nutrition is poor. In this class treatment by any



FIGURE 13.

method of forced correction does not seem to accomplish anything if delayed until the softening process becomes quiescent. Apparently this was a case of this kind.

C.—Spinal Lesions:

I believe that the spinal lesions, which from the osteopathic view point mean any spinal abnormality other than bone disease, often times predispose to curvature on account of the fact that they interfere with the nerve supply and tone of the muscles of

the spine; and thus curvatures occur readily in connection with faulty position which I think is sometimes assumed on account of such position being one in which the child assumes as a matter of ease.

D.—Paralysis:

Curvatures of the spine of the lateral type are common following infantile paralysis, but these curvatures are due usually to nothing more than lack of muscle tone and superimposed weight causing the spine to bend to one side.

E.—Other Causes:

There are of course numerous other causes which can result in spinal curvature. Any condition of the legs or hip joints which throws the pelvis out of balance, will result in a compensatory curve in the spine to maintain body balance. The majority of cases of spinal curvature, however, develop without any apparent cause other than repeated faulty posture and lack of muscle tone. And it is this class of curvatures that we consider the treatment for later on in this article.

You will understand that these causes which I have given here apply entirely to simple lateral curvature, and are not the direct causes of the curvatures of the second class described under heading of diseases of the bone.

Character of the Deformity—How it is Produced.

A glance at Figure 2 in this article will give the reader a pretty clear idea of the character of the deformity. This drawing was made from a radiograph of a case now under treatment—a girl thirteen years of age. And I might add right here that altho the girl has been under treatment only a month, the curve has been practically straightened in that length of time. This, however, is the exception rather than the rule and it must not be assumed that most cases of this degree of severity will respond so readily.

A large per cent of lateral curvatures are of the right dorsal type with a compensatory curvature to the left in the lumbar region. I believe in most instances, except where the curvature

is a result of an unbalanced pelvis, that the primary curve is in the dorsal region with the lumbar curve secondary. In a right dorsal curve there is a bending of the spine to the right with a rotation of the vertebrae to the right. Figure 3 showing one vertebra with the two ribs attached in the center of the curvature, illustrates the position of the body of the vertebra and also shows the deformity of the ribs. There is depression of the



FIGURE 14.

Same case as Figures 11 and 12 showing anterior and posterior view of patient with cast on.

ribs on the right side and backward misplacement, occurring in connection with rotation of the body of the vertebra to the right. This illustration also serves to show the general form of the thorax. You will observe that as a matter of fact the thorax is rotated in the opposite direction to the bodies of the vertebrae. This is a relative rotation and not an absolute one.

Just how these deformities occur, I will attempt to explain.

Curvatures do not occur except when the spine is in a flexed position or at least rotation of the vertebrae will not occur in connection with side bending except when the spine is in the flexed position, on account of the fact that when the spine is in a flexed position the articular processes are separated, and this in connection with certain forces to be considered later, will promote rotation of the vertebrae. On the other hand, when the spine is extended, the articular processes are locked and rotation will not occur. Referring again to the remarks I made in regard to faulty posture being the cause for curvature where I spoke about the child sitting at a desk in a faulty position, I will attempt to point out the factors which produce the deformity which you see in figures 2 and 3.

Curvatures develop in connection with flexion, side bending and torsion. The part that flexion plays has already been explained. We will now attempt to account for the deformity in the thorax and the rotation which occurs in the bodies of the vertebrae to the side of convexity on the basis of side bending and torsion. The articular processes we assume are unlocked on account of the flexed position. Now when the child bends to the left as a result of the right shoulder being elevated and the left one being depressed and sits in a twisted position, the high shoulder being in front of the low one, there is an increased tension upon the muscles along the side of the thorax. This causes pressure upon the ribs in the mid lateral line of the thorax. This pressure in a plastic chest depresses the ribs, increases the angles and the pressure is directed thru the ribs against the vertebrae. This is the cause for rotation. Inasmuch as the rib has two attachments to the vertebra, on at the end of the transverse process, and the other joining the body, this pressure or force which is started at the mid lateral line, but directed around the rib to the vertebra, will result in a right rotation of the bodies of the vertebrae.

I believe, too, that there is another cause which plays an important part in rotation which I have never seen mentioned in any article on the subject, and that is this: that when the spine is in a flexed position there is increased tension between the bodies of the vertebrae anteriorly. Now in side bending a force is transmitted from the ribs to the vertebrae, as has been explained already. As the result of increased tension on the convex side, the bodies will

rotate to the right to relieve joint tension. It is the only direction they could possibly move for the purpose of relieving the pressure between the bodies of the vertebrae at their anterior points.

Treatment

Altho this article is to deal particularly with the Abbott method, I do not wish to ignore other useful methods of treatment. Often where the Abbott method is used and the deformity in the spine and



FIGURE 15.

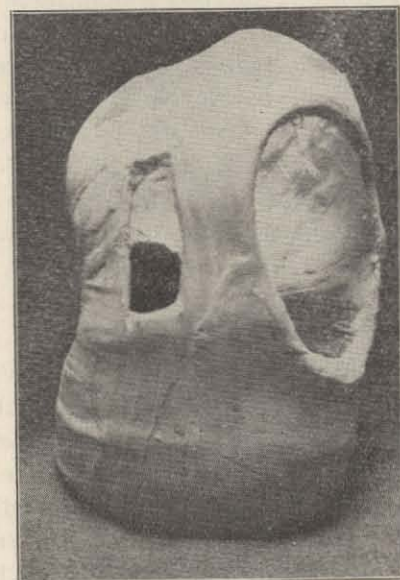


FIGURE 16.

Anterior and posterior views of cast used in the treatment of left dorsal curvature. The rectangular hole in the back of the cast is the place where the pads are inserted.

thorax corrected, after-treatment is very necessary, and in my practice I have found previous treatment highly beneficial as well. Previous treatment enables one to bring about a correction with the use of less force and in a shorter length of time.

I have treated cases of lateral curvature practically without interruption ever since I have been in the practice of Osteopathy, and I have had no cures in cases of the fixed lateral type until within the past year, since I have been using the Abbott method

along with osteopathic methods. The latter methods precede and follow the use of the corrective jacket.

You will notice that I refer here to curvatures of the "fixed lateral type" where there is deformity of the spine and thorax. I am sure that I have helped many cases of curvature by the osteopathic methods; that I have improved nutrition and probably prevented further deformity, but I am quite as positive that it is as impossible, by any method of manipulation or exercise, to correct a fixed lateral curvature of the spine as it is to correct a case of club-foot where there is a deformity in the bones by any other method than forcible correction, and the subsequent handling of the case where the foot is kept in an overcorrected position for a sufficient length of time for the deformity to entirely disappear. Functional curves and compensatory curves, not of the fixed type, can usually be cured by osteopathic methods, and by a system of exercises, where the cause of the trouble can be removed. I desire to classify the treatment for lateral curvature under the following heads:

A—Osteopathic methods.

B—Exercises.

C—Corrective jackets.

Under the head of corrective jackets I will now take up the Abbott method. I will assume that we have a case of right dorsal curvature with or without compensatory curve in the lumbar to the left. If compensatory curvature exists in the lumbar to the left, it is to be ignored and treatment directed entirely to the dorsal, upon the assumption that if an overcorrection, which is the ultimate object of the treatment, is secured, the lumbar curvature will disappear by compensation. There is an infinite amount of detail in connection with the treatment, and I admit that altho I have been using this method now for nearly two years, and during that time have treated forty-seven different cases, I have just recently perfected the technique to the point where I am able to get the most out of the treatment. Figure 1 shows the Abbott frame with a patient in position for treatment in a case of right dorsal curvature.

The patient is prepared for treatment as follows: A neat-fitting undershirt is put on next to the body. Prominent points are now padded with saddlers' felt. I usually take a piece about five or six inches wide and long enough to go around the pelvis so that it will just meet in front. It should be high enough to cover the innomi-



FIGURE 17.

FIGURE 18.

Anterior and posterior views of patient wearing the removable celluloid jacket in a case where the original deformity was a marked left dorsal curvature.

nate bone, and of course runs clear around the body over the sacrum. It is fastened in front by adhesive plaster. I next take a piece of saddlers' felt somewhat wider and long enough to go around the thorax, cutting out two small depressions for the arms, so that the felt will go well up over the scapulae. This is fastened in front as was the lower part. The next step is to make a bunch of pads about two or three inches thick, and large enough to extend around to the spine in the back, and not quite to the mid line on the side. Pads should be tapered off so that main thickness is in the middle. This pad is now placed on the concave side, filling up the gap from the spine to the side of the body. I next take a pad somewhat smaller and place it on the right side of the thorax in front and a little to the right side. A second shirt is now put on and these two pads are held in place by the shirt. After the pads are properly adjusted and the shirt pulled down so that it will not wrinkle, the patient is now ready for the frame.

The patient is placed on a hammock twelve or fifteen inches wide, cut on the bias, so that the right side is three inches shorter than the left. The hammock is maintained in position by a cross bar at the head, which is fastened to the frame, and a loose bar at the foot, which is attached to two small ropes which lead to a rotary bar at the foot of the frame. This bar is controlled by a ratchet, so that the hammock can be adjusted to get the degree of flexion that is desired. The hammock is made from heavy muslin or canvas. Canvas is better, as it is stronger. Patient's feet are now lifted so as to increase the flexion. Be sure that all the pads are in the proper position and that the patient is fairly comfortable before proceeding further. Canvas straps about four inches wide are now placed as follows: Place one around the pelvis and fasten it to the top rod on the right side. A similar strap is placed under the arm on the left side and fastened to the top rod on the right side as near to the end of the rod as possible. A pad about six inches square should be placed under the axilla before the strap is applied. All of these bars on the sides of the frame and at the top are adjusted with ratchets so that they can be rotated and fastened. A strap now is placed around the thorax at the convexity of the curvature, both ends of this strap being fastened to the middle bar on the left side. Before these straps are tightened it is necessary to put the shoulders in the proper position; the left one is carried high, the right one low. The right

shoulder is depressed as much as possible and the left one is elevated so as to produce some rotation of the thorax. If necessary straps can be used for this, one coming over the right shoulder and fastening to the lower bar, and one going under the left shoulder, being fastened to the hammock and to the top bar. This will rotate the thorax to the right. The patient now being in proper position, the side bars are turned and the deformity corrected as much as possible

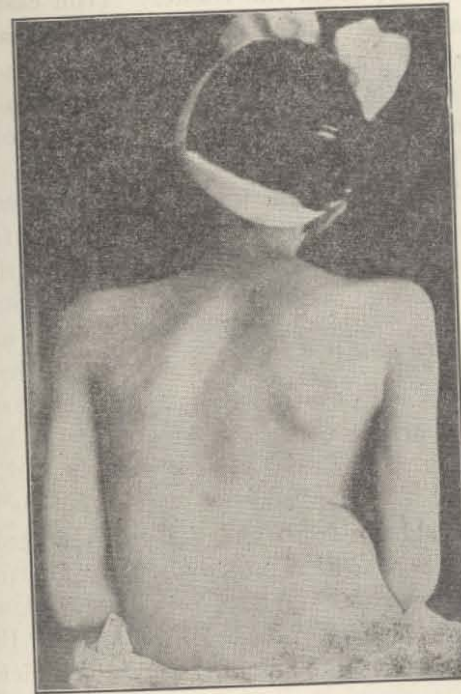


FIGURE 19.

Case of a girl thirteen years of age, with left curvature involving both lumbar and dorsal, with marked deformity in the thorax. This photograph was taken after the first cast was removed. Patient is still under treatment. A particular effort is now being directed toward overcoming the rotation by maintaining the patient in a position of side bending to the left, rotation of the upper part of the thorax to the left, and exerting pressure forward against the angles of the ribs.

without causing too much discomfort to the patient. Having tightened the bars, we now apply the plaster of Paris cast.

Put on two layers of sheet wadding and fasten these down firmly with gauze bandage and apply plaster of Paris. The cast

should be extended low over the sacrum and in front as low as the pubic bones, and all the way up the trunk and well up under the arms. Be sure that the cast is of uniform thickness and that it runs well up toward the neck in the back. I usually carry the plaster around over the right shoulder so as to keep that shoulder back. Usually half inch thickness is enough.

As the cast sets the process of trimming can be started before the patient is removed from the frame. Trim cast low under the chin, smooth it around the back and under the arms, cutting off as much as is necessary, but do not take off enough under the left arm to allow this shoulder to drop very much, but enough should be taken off to prevent any obstruction to the circulation to the arm. It is well to take it off pretty high in front at the bottom. An inch or two above the pubic bone will be all right, but trim it low behind so as to maintain the flexion. Enough should be cut out in front so that the limbs can be readily flexed without obstruction. Patient can next be removed from the frame and placed on a table, either lying face down over a couple of pillows or set up on the edge of the table supported by an assistant. Two holes are now cut in the cast, one over each area where the big pads were inserted. The many illustrations of the casts in this article will show the size of the holes. You now cut a hole in the outer shirt and remove the big pad, which permits expansion of the chest to the back. A second hole is then cut in the shirt on the right side in front and the pad removed. This allows expansion of the chest on the right side in front and permits the ribs, which are posterior on the right, to move forward under pressure, which is to be exerted by the insertion of pads at the angles. All straps are removed except the one in the middle, which is left in with long ends so as to assist in the after treatment. The patient is now put to bed and usually it is not necessary to stay there more than a day or two.

Immediate effects are sometimes unpleasant, patients complaining of difficulty in breathing and some pain. Usually they sleep poorly for a day or two, but the spine soon gives under the pressure and the patients become comfortable. Patients should be seen every few days, or at least once a week so long as the cast is worn, and pads inserted as indicated. While an assistant pulls on the straps which are left in the cast, the ends of which protrude from the back hole, the operator inserts additional pads from time to time over the

convexity so that the maximum of pressure of the pads is exerted on the angles of the ribs. This pressure overcomes rotation and decreases the lateral deformity. Care should be taken that too much pressure is not brought to bear on the side of the convexity, because if more pressure is exerted here than on the angles it will increase rather than decrease the rotation.

Casts are worn for variable periods. In some cases the cast should be removed after a month and a new one applied. In other cases patients wear the cast for three months, but if the best results

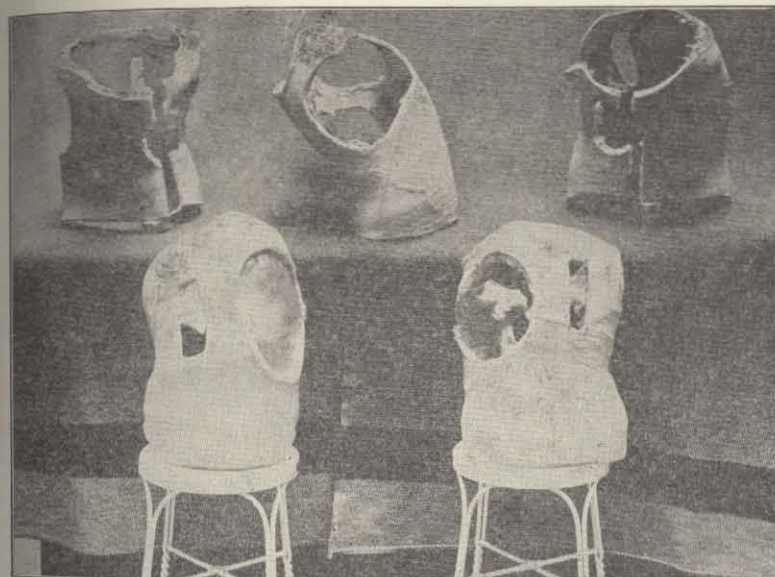


FIGURE 20.

Showing several casts. The shape of the casts and the location of the holes will indicate sort of curvature they were used for. The one in the center in the upper row shows the extent of flexion.

are to be secured patients must be seen at least once a week and the proper adjustment made of the pads and new casts applied from time to time. Results should not be expected too soon. In a case of average severity in a child twelve to fifteen years of age, I would not care to prognose a favorable result short of from six to nine months, and in older cases frequently a longer period of treatment is necessary.

The object of the treatment is not only to effect a correction, but an over-correction must be brought about if the results are to be permanent. Not only must we effect an over-correction of the lateral curvature of the spine, but this over-correction must be maintained until the deformity in the thorax disappears. In children with plastic chests this deformity in the thorax will disappear by maintaining the over-correction of the curvature on the same principle that the original deformity developed in the thorax in connection with the curvature in the opposite direction. I do not attempt to effect an over-correction in any case immediately by the application of the cast, and I do not use as much force now as formerly in attempting to correct a curvature preceding the application of the cast. It isn't necessary. If the patient is put in the proper position in the frame and the curvature slightly corrected, the balance of the correction can be brought about slowly by the insertion of pads, and this, altho it may necessitate more casts and take a little longer time, is the best and safest procedure to follow. I have gotten my best results by following this method. It is unreasonable to assume that the curvature can be corrected at the time the first cast is put on. The patient cannot possibly stand the force which would be required to correct the curve.

Are there any dangers from the treatment? There are no dangers unless too much is attempted. I had one experience about a year ago where the patient in the frame became suddenly unconscious as a result of too much pressure. I quickly ripped the cast off and the patient soon revived, but it was an unpleasant experience and I do not now use enough force to cause any marked dyspnoea or vomiting, and make it a rule to watch the pulse closely to see if there is any cardiac disturbance, and if it should arise, pressure is immediately lessened.

Pressure sores which I formerly had in many of the cases, I have been able to avoid by increasing the pressure slowly, and if at any time the patient shows any signs of the development of a pressure sore, as pain or bad odor coming from the cast, pads are removed and the sore treated without removing the cast. As soon as the skin becomes normal again the pads may be reinserted. The whole object of the treatment is to maintain the patient in a position which would produce a curvature in a normal individual to the opposite direction in which the curvature exists in the patient under treat-

ment, and in addition to this position, force is brought to bear to maintain side-bending in the direction of the convexity of the curvature, and to bring about a maximum of pressure against the angles of the ribs which are prominent posteriorly so that this pressure will reduce the rotation in the vertebrae, and push the ribs forward filling out the depression in front on the side of the convexity.

After Treatment

If treatment is discontinued before the curvature is over-corrected the ultimate result will be unsatisfactory because the curvature will recur to a considerable extent. Often times even after

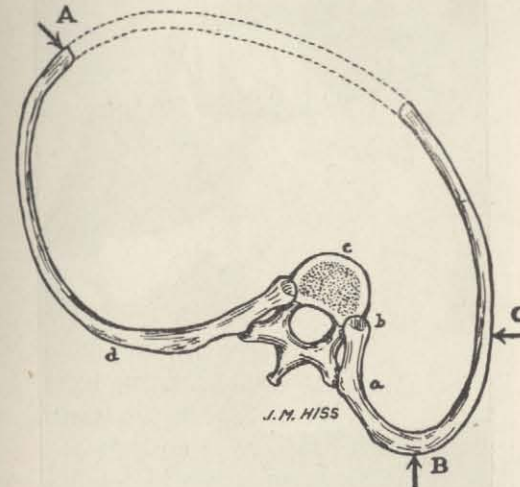


FIGURE 21.

This illustration shows the rotation of the body of the vertebra to the right in a right dorsal curve, and the deformity which occurs in the ribs. The rib on the right or convex side of the thorax is depressed downward and inward, and the distance between the point C and the body of the vertebra lessened. Pressure at point C is responsible for the rotation of the body of the vertebra to the right on account of the attachment of the rib at points a and b.

In the treatment to reduce this deformity, just enough pressure can be exerted at point C to maintain the body in a position of side bending to the right. In other words, the shoulders are carried as far as possible to the right, the left one being elevated, the right one depressed, and point C is made a fixed point, but it can be readily seen that if too much pressure is exerted at point C it will increase the rotation rather than reduce it. In order to overcome this tendency, a greater amount of pressure must be exerted at point B than at C. If a maximum of pressure is exerted at Point B this on account of the force directed through the rib to the body of the vertebra at point b will have a tendency to reduce the rotation.

the curve in the spine is over-corrected there will still be a considerable deformity in the thorax. That is, the sides of the thorax remain unequal. The side which was formerly concave, altho now convex, is still too wide; and the side which was formerly convex, altho now somewhat concave, is still too narrow. I have reference here to the distance between the spinous processes and the sides of



FIGURE 22.

Photograph of patient with right dorsal curve just before the removal of cast, showing the canvas straps that are used to pull the curvature to the left, while pads are being inserted over the angles of the ribs on the right.

the thorax. In order to overcome this deformity the spine must be continued in a position of over-correction but it is not necessary now to insert pads any longer nor is it even necessary for the patient to

wear plaster of Paris jacket, which is heavy and uncomfortable. But if no support is used, even tho the spine is overcorrected, the trouble will recur unless the deformity in the thorax is removed. Very little force now is necessary to maintain an overcorrection and a removable jacket, made from leather or celluloid can be used. This is to be worn during the day, while patient is up and around,

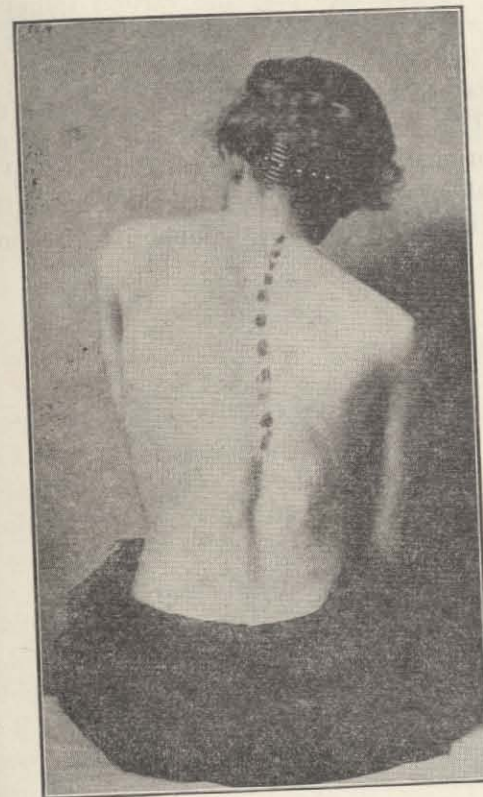


FIGURE 23.

The same patient after removal of cast, showing practical correction of deformity. A little pressure on the right side will force the spine in a position of overcorrection. While the patient's spine was held in a position of overcorrection a light plaster of Paris jacket was fitted as a model for a removable celluloid jacket that the patient is now wearing. Treatment was started August 1, 1913. Three casts in all were used. At the beginning of treatment the spine was two inches to the right—with the usual deformity in the thorax.

and can be removed at night. It is now necessary for the patient to take treatment to build up the spinal muscles inasmuch as they have suffered in nutrition to a considerable extent as a result of wearing the plaster jackets.

Osteopathic treatment now is essential and consists of manipulation of the spine freely in various directions and in loosening up the muscles thoroughly. Exercises of various kinds too are very beneficial, which bring into play the various spinal muscles.

After the removable jacket has been used for some time, it might be well to leave the jacket off several hours at a time and if no bad results occur, it can be left off for longer periods but the case should still be watched for the purpose of determining whether or not the deformity is going to recur: Care should also be taken that the removable jackets are not worn too long so that the patient will develop a fixed curvature in the opposite direction.

RESEARCH OR REAL ESTATE?*

By Dr. G. A. STILL

Several different articles, appearing at different times as "Osteopathic Research" and varying from "Cancer Cures" to "Air Emboli" leads us to question whether anyone, however able, can produce research results of any value under the present conditions of the A. O. A. Institute, and can anyone, however sincere, who never saw a research experiment performed and who could not name any ten of the leading research men in the world, satisfactorily outline the workings of such an Institution?

Is our "Institute" producing Osteopathic Research or Physiological and Surgical Review mainly?

Doubtless many who read this head will simply say "knocker" and pass it on without reading the article, but it isn't for these persons that the article is being written. It is being written for that majority of the profession who see beneath the surface and who do not believe in bluffing and four-flushing.

There are plenty of people who could and should write this article instead of myself, and many of them have stronger convictions on the same subject than myself, but they are indifferent or they fear the wrath and the knocking that will follow and the possibility of being misunderstood by many who will never read the article, but just hear about the headlines.

However, someone has to take the blame for everything and someone has to take the lead in any discussion. I have waited several years for someone else to do it and I realize that I am in a position more than any other one man to be professionally injured by those individuals, who do not like what this article contains, and yet, as I look the situation over I realize that most of my friends anyhow are among the working members of the profession and mighty few among the politicians. Still, in writing the article I realize that it will be an expensive piece of literature for me.

Nevertheless if someone doesn't speak before it is too late, there are some things about our so-called "research work" that will make us not only the laughing stock of that "scientific world," which we hope to convince, but even the laymen will look upon our Re-

* An article by Dr. George Still praising research work as such, written with entirely friendly feelings for the men working in the Institute, but with strong disapproval of the present methods of managing the research work. An enlarged part of the address, which was to have been given by him during the A. O. A. convention last summer.

search as a joke. Therefore, I am going to talk plain English, and, when there is any object in using a name or word, I am going to spell it out.

Understand in the beginning that I am not knocking Research Work. I am for it and I realize that the osteopathic profession through its individual members has subscribed a wonderfully convincing sum of money for research work and my protest is wholly against misusing this fund and the confidence of the profession, by doing over and over, experiments in physiology and surgery, which are ages old and which have already been excellently done and calling it Research, the apparent object of this repetition of old subjects being furnish copy for the A. O. A. Journal and to convince the profession that the Institute is busy.

Let me say right here that I have nothing personal against the present acting director of the research laboratory and I certainly think he is busy. I think he is doing more than could be expected of any one man, under the circumstances which he works, and likely most of the people who control his work are sincere in believing that they are doing right. Personally I think that Dr. Deason is a very bright young man. I have both verbally and in writing boosted him and always intend to boost him, personally. He has many good ideas. I believe he could do some valuable research work, but I don't believe anyone living can produce much real research results when they are on a small monthly salary, which can be terminated at any time by a committee, (at least part of whom have never had any practical experience with research,) if they are not personally satisfied with the AMOUNT of material turned out. They can't devote themselves to RESEARCH and be furnishing continuous copy for the professional journals and the publicity committee. Neither can they make frequent trips to state and other local organizations lecturing on what is being done and creating interest in the FUND. Neither is it any aid to a man doing research work, that he has to keep "open-house," as it were, at the laboratory, entertaining daily visitors, nor can he grind out osteopathic research when the Institute has no library nor index of research work, and the director not enough time to go over the extensive libraries elsewhere, to see if attempted work has been done before.

Doubtless all these functions, furnish reading material, press notices and all are good things, but they interfere with the primary

object of the Institute, when they interfere with the time of the director. It should all be done by others.

THE JANUARY JOURNAL OF THE A. O. A., PAGE 253, UNDER THE HEAD, "THE EFFECTS OF AIR IN THE BLOOD STREAM," CONTAINS WHAT IS PRESUMABLY THE MOST RECENT CONCLUSIONS OF OUR OSTEOPATHIC RESEARCH INSTITUTE and I must say that this article is enough to blight the confidence of anyone who reads it; that is, their confidence in getting anything of value to osteopathy out of the present system of researching. Re-search is a good word, as there isn't a possible valuable osteopathic point in the entire article; and there is nothing in the experiments or the conclusions that is new (and right). In very elaborate detail all these experiments about air emboli have been done before. The results have been published time and again and the problems concerned have been exhaustively worked out years ago.

All of our larger modern texts on surgery contain them. ALL THE LARGE LIBRARIES CONTAIN THE ORIGINAL EXPERIMENTS. BOTH the experiments and the conclusions are purely of surgical interest.

In order to avoid making the discussions purely a question of "one says it is and one says it isn't," I quote from the original article in the A. O. A. Journal. "Some years ago while doing experimental work we accidentally found that, contrary to the general belief, a few bubbles of air which happened to get into the veins or arteries of a living animal during surgical operations did not result in immediate death."

Then follows a page of quotations from two of the smaller school texts on surgery, ONE OF WHICH AT LEAST IN REGARD TO THE VEINS, ALREADY COVERS THE SUBJECT: "All the other literature that we have been able to find on the subject is very indefinite and offers nothing other than what has been given above, and we have not been able to find any statements regarding the effects of air in the arteries".

Then follows a page or so descriptive of the experiments on seven dogs, by injecting air into the veins, (tried by others at least as long ago as 1683 and nothing added of value since eighteen eighty some). Then follows the report of the injection of air into the arteries of four dogs, one of which had a very common canine disease of the cord before the operation and the post mortem examination of

he spine showed a lesion at the ninth and eleventh dorsal segments, which of course, the article does not claim had anything positive to do with the subject matter of the article itself, but it allowed for Conclusions Nos. 4 and 5, as follows:

"4. That symptoms of incoordination can result from interosseous subluxations.

5. That interosseous subluxations which materially affect the normal body functions cause a marked decrease in the ability of the animal to adjust itself to functional perversions".

These two conclusions based on this dog, are probably not considered by the authors as final on this subject, although it is possible that they may be so. Still, that they did not consider the results on this dog as valuable in proving any of the points about the things they were trying to discover in this series of experiments, is shown by the following statement concerning this particular animal:

"Because the results of the above test were unreliable, due to the bad condition of the dog at the outset, we decided to try a normal dog with larger amounts of air".

The three conclusions arrived at by the work on the eleven dogs and irrespective of the two conclusions already mentioned, based on the condition of the one who was already sick, are here quoted as they appear in the A. O. A. Journal.

"1. That there is very little or no danger from the entrance of air into the veins unless other foreign substances are carried with it.

2. That the blood of normal animals has the power of absorbing large quantities of air and that it can also destroy bacteria which may be contained in the air.

3. That air injected into the carotid arteries will cause anemia of the brain from which the animal may recover if kept quiet,"

BRIEFLY AND CONCRETELY I OBJECT, FIRST, TO THE CLAIM THAT THESE EXPERIMENTS ARE IN ANY WAY RESEARCH;

Second, the statement that "all the other literature that we have been able to find on the subject is very indefinite;"

Third, the statement that it is "the general belief that a few

Fourth, that the three conclusions regarding air emboli are new; bubbles of air entering the veins or arteries will prove fatal";

Fifth, that they can possibly be called Osteopathic.

One wishing to go into this subject and not caring even to go into mediaeval literature will find much literature, in addition to the small texts quoted in the A. O. A. Journal, available in the large libraries. Of these I will only quote a few.

The John Hopkins Bulletin No. 3, Year 1892, published the well-known works of Welch and Nuttall, proving that most of the quoted "human" cases that had once been claimed to have died from air emboli were really due to the gas of the bacillus aerogenes capsulatus. These results are universally accepted and many since this have denied any authentic cases except in the laboratory under unnatural conditions.

Keene's Surgery, Volume 1, Page 456, following a discussion of the above article says as follows: "CHAPTERS COULD BE WRITTEN, IF ONE ATTEMPTED TO REVIEW ALL THE EXPERIMENTAL WORK (REGARDING THE EFFECTS OF THE INTRODUCTION OF AIR INTO VEINS), WHICH HAS BEEN CARRIED ON FROM THE SEVENTEENTH CENTURY TO THE PRESENT DAY. The results of these experiments have been in many respects uniform".

Hare, Therapeutic Gazette 1889, discusses an extensive and carefully conducted system of experiments giving tabulated conclusions, discussion which Dr. Chas. H. Frasier, of Philadelphia, writing on embolism, in the recent six volume series of surgeries edited by Keene, published 1911, states, "It is generally known that the entrance of air into the veins is not necessarily a fatal accident and Hare states that death never occurs from the entrance of air into the ordinary veins unless the quantity be enormous."

Laborde and Muron many years ago, A. D. 1873 TO BE EXACT, reported the injection of ELEVEN HUNDRED AND TWENTY C. C. of air into the vein of a dog during an hour and a half without any effect.

Ludvig Hektoen, (1911), quoting experiments, states that animals are less susceptible than man, and cautions us to exercise great care in interpretation of supposed cases of death from air emboli, especially certain classes of cases.

Velpeau, Fergusson and others in times past have gone so far as to deny that enough air could be accidentally introduced without intentional assistance to cause death.

Frasier in his article gives twenty-two references to the subject beginning with 1839 and ending with 1902. These articles go most exhaustively into the subject. The experiments during the last cen-

tury tend to show that the injection must be in the veins near the heart, in what is known as the "danger zone", or it must be a very forcible and large injection to be likely to prove fatal, or a very sudden entrance as explainable by Nuttall's work.

THE FATAL RESULTS in the dogs experimented on by Brunner and Hardel in 1684 and Morgagni, 1760, Haller, 1757, Tissot, 1784, and Postal, 1800, were made under these circumstances; but the work of Jacobson in 1880, the work of the Commission appointed by the Royal Academy of Medicine of Paris about the same time, Hare in 1889, Laborde and Muron in 1873, and so on and so forth, lead us to conclude that "accidental death from entrance of air into the veins is IMPROBABLE BUT POSSIBLE, and especially possible in the so-called danger zone, especially if the wound is neglected for some minutes, and the dangers are increased by deep inspiratory efforts."

"FORCIBLE RAPID INJECTION of enough air into ANY OF THE LARGER VEINS CAN CAUSE DEATH in lower animals, such as sheep, horses, dogs, etc., on which such experiments can be made."

"Forcible injection of air into arteries may affect the function of the part supplied, and, if the artery be the carotid, for instance, it may cause a fatality by affecting the vital centers," but it has been shown that this is not of clinical importance, because "it does not happen in accidental injuries", and this is the reason that less work has been done on air emboli in the arteries than in the veins. "It can happen in operative and accidental wounds in the veins, that air **does enter and cause trouble, but it cannot happen except by design**

Anyone familiar with location of the John Crearer Library in Chicago or any other good scientific library can spend a month reading nothing else but the results of previously performed experiments along the same lines as those in the last A. O. A. research report on Osteopathy and I think it an injustice to the profession itself, to the men who have to work in the Institute and to Osteopathy itself and a very great criticism of the A. O. A. Journal, that stuff like this can be put out as Osteopathic Research. However, I have always noted that, if one "stood in", whatever they did was "pure Osteopathy", while, if one did not "stand in", whatever they did or proposed doing was "medical" or "surgical" and they were so branded at every opportunity. Several years ago an attempt to exploit a cancer cure in the A. O. A. Journal went through as Osteopathy. Several men

have done the Lorenz hip operation and had it discussed as "pure osteopathy". Others have claimed to insert the finger into the Eustachian tube and this went out as "pure osteopathy". Certain spring waters appear to be "purely osteopathic" and certain mechanical appliances seem to embody all the principles of the science in its pure state, but let someone, who does not "stand in" develop any new or original ideas and of necessity he is "medical". He is "forcing surgery to overshadow osteopathy." He is a "menace to the profession". He is not a "pure osteopath", and so forth and so forth.

Now, it doesn't need a John Crearer Library with its extensive technical references to show one that the general surgical impression is not that entrance of air into the veins is necessarily fatal nor anything of the sort. The information is obtainable from most any professional library containing a good set of reference books or surgeries. It is true that some of the smaller one-volume texts are so brief as to be somewhat misleading and not up to date on the subject, but we certainly should not be putting out results based on this kind of information, as representative of our great Osteopathic Research Institute.

Amongst the commonly used text books that definitely state the main points that I have made in this article or at least state that death is only due to conditions where a large amount of air enters, or where it enters very suddenly, as by forced experiments are

Da Costa, 1905,
Tilton, 1901,
Stimson, 1901,
Rogers, 1901,
Keene, 1911,
Hektoen, 1901,
Tillmanns, 1894,
Roswell Park, 1907,
Etc., Etc.

The latter states "Air emboli used to be considered dangerous, if not necessarily fatal, but are now looked on as almost a bug-bear." In my own library I have twelve other texts that go into the subject in some detail and of these most of them are very clear, though I will admit that the statements of two of them are a little confusing,

but no extended investigation of the subject will leave any doubt in anyone's mind.

In my own lecture on surgery I have told about Kocher of Berne, Switzerland, Faenger of Chicago (now deceased), and William Schroeder of Chicago, all of whom I have personally quoted as having had accidental air emboli in neck operations on humans without any after results, and two cases that I saw with Schroeder operating, I have mentioned, I believe, to every class I have taught, until it is a sort of chestnut.

Indeed it was following a lecture by Dr. Schroeder about 1902 on this subject that caused me to first look the matter up extensively.

I expect some very severe criticism for writing this article, but I don't expect anybody to claim that the article is wrong in its main contention. I expect the criticism to take the form of circumlocution and personalities, which I have no intention of answering, as the article was offered in a desire to see justice done to the profession, to osteopathy and to whoever has to work in the Research Institute under the present conditions. However, anyone, who cares, to bring forth proof or arguments that the article in the January A. O. A. Journal, and indeed much other stuff of like nature, is either osteopathic or research, I will be glad to take up the matter with them.

I believe there is a remedy, and a good one, which I will offer if it is wanted.

BOOK REVIEW

The Elements of Homoeopathic Theory, Practice, Materia Medica, Dosage and Pharmacy.—By Drs. F. A. Boericke and E. P. Anshutz. Third Revised Edition. 223 pages. Cloth, \$1.00 Postage, 5 cents. Philadelphia.

The object of this book is to meet a call for a small work that would give an insight into theory, materia medica, therapeutics, pharmacy and dosage of Homoeopathy. The book is divided into three sections: I. Generalities, II. Therapeutics, III. Materia Medica. The theory of Homoeopathy is briefly but clearly explained. In the section on Generalities we find the following statement: "They (drugs) will cure the symptoms in the sick that are similar to those that they can produce on the human body, that is the all of Homoeopathy. 'Similia similibus curantur'". This book is a convenient guide for those practitioners who administer drugs.

The Early Diagnosis of Tubercle.—By Clive Riviere, M. D., C. P. Physician to Out-Patients, City of London Hospital for Diseases of the Chest, Victoria Park, E. Physician, East London Hospital for Children, Shadwell, E. Oxford University Press, American Branch, 35 West 32d Street, New York. Price \$2.00. 1914.

The seriousness of the disease phthisis demands a careful and complete understanding of all its phases. Since in its early stages tuberculosis is considered curable how very imperative that an early diagnosis be made. This is just what the Author is attempting to do. He recognizes the difficult and laborious task to acquire the skill required for the early diagnosis of tuberculosis and yet he has collected the scattered stones of knowledge and presents it in this book. The author does not attach so much importance to the laboratory tests in diagnosis as he does to the actual practise and experience in examining cases of phthisis and translating minor symptoms often overlooked. This is an excellent book.

The Anatomist's Notebook.—A guide to the Dissection of the Human Body by A. Melville Paterson, M. D. Edin., F. R. C. S. Eng. Professor of Anatomy in the University of Liverpool; Examiner in Anatomy; University of London, Conjoint Board (Royal College of Surgeons and Physicians). Indian Medical Service, etc; Formerly Examiner in Victoria University, and in the Universities of Cambridge, Oxford and Durham. Published by the Joint Committee of Henry Frowde and Hodder & Stoughton, at the Oxford University Press Warehouse, Falcon Square, London, E. C. American Branch 35 West 32d Street, New York. Price \$2.00 1914.

This is a most excellent dissertation manual. It contains 350 pages. Every printed page has opposite it a blank page for drawings and notes. This we believe to be an excellent feature. It is in the truest sense a student's guide. The book is based upon a plan followed in the anatomical laboratory of the A. S. O. We endorse this book and recommend it to our students.

Radium Therapeutics.—By N. S. Finzi, M. B. (Lond.), M. R. C. S., L. R. C. P., L. S. A, Chief Assistant in the X-Ray Department, St. Bartholomew's Hospital, London. Henry Frowde and Hodder & Stoughton, Oxford University Press, Warwick Square, E. C. American Branch, 35 West 32d Street, New York.

This is a small book of 112 pages. It contains six chapters. Chapter I. Introductory, II. Internal Administration of Drugs, III.

Histological, Physiological, and Pathological action of Radium Radiations, IV. Apparatus and Methods of Application, V. Treatment of Superficial Diseases, VI. Treatment of Internal Diseases. Thus the author gives a brief but clear account of the action and use of radium and its rays. In view of the limited knowledge of the therapeutics of radium the author says he has endeavored to distinguish ascertained facts and results not definitely proved. In view of the present discussions in the magazines relative to radium this book will surely be welcomed.

A Reference Handbook of the Medical Sciences.—Embracing the entire range of scientific and practical medicine and allied science. By various writers. Third Edition, completely revised and rewritten. Edited by Thomas Lathrop Stedman, A. M., M. D. Complete in eight volumes. Volume I, 936 pages. Imperial 4to, illustrated by chromo-lithographs and fine half-tone and wood engravings. Vol. II, 838 pages, even more profusely illustrated. Wm. Wood & Co., Publishers, New York.

The reference handbook is so well known by all the older generation of medical men, that it requires no introduction to them. First published in 1884, it has gone through two editions, and has proved to be the most popular medical work ever published. It is often referred to as "the Doctor's Bible". The Third Edition has been completely revised, and almost entirely rewritten, and brought absolutely up to date in all particulars. Volumes I. and II are before us, and they leave nothing to be desired. The great variety of topics treated, with the authoritative and complete, yet concise, method make the book an ideal work for ready reference. We can perfectly appreciate the truth of the remark so often made, "No Doctor can afford to be without the Reference Handbook."

Volume I embraces topics from A to Ba, inclusive, with 417 separate articles, from a few lines to twenty or more pages in length, written by 100 contributors.

Volume II extends from Bad to Chl. It contains 521 articles, by 87 contributors.

Volume III, we understand, will appear in a few weeks, and will contain 500 articles.

The book is beautifully printed, and illustrated by fine half-tone and other cuts, and by a large number of full-page plates of the most exquisite execution.

Legal and Legislative

OSTEOPATHY UP TO JURY.

Circuit Judge Campbell on February 11 overruled a demurrer to the answer of Dr. John A. Van Brakel, an osteopath, to the complaint under which it was sought to bring about his removal as secretary of the Clackamas County Board of Health. Proceedings were instituted soon after Van Brakel's appointment, the plaintiff being the State of Oregon, upon the information of District Attorney Tongue. The Clackamas County Medical Society instigated the action to prevent Dr. Van Brakel holding the office.

Dr. Van Brakel was named secretary of the Clackamas County Board of Health September 13, 1913, by County Judge Anderson, to fill the unexpired term of Dr. J. W. Norris. The law provides that the Secretary of the County Board of Health, who is also County Health Officer, "shall be a graduate of a reputable medical college and shall be in possession of a license issued by the Oregon State Board of Medical Examiners." Dr. Van Brakel is a graduate of the American School of Osteopathy, of Kirksville, Mo., and holds an Oregon State license to practice osteopathy. The complaint charged that this license is not such as is contemplated by law and that in effect the school from which the doctor was graduated is not a "reputable medical college."

Judge Campbell did not rule on the question of fact, which will be determined by a jury when the case formally comes to trial.

The court held that the license which the State Board of Health granted to Dr. Van Brakel to practice osteopathy is such a license as is contemplated by the statute as a qualification to hold office.—The Oregonian.

THE LEGAL STATUS OF OSTEOPATHY IN KANSAS.

The osteopathic law and rules of the board require of an applicant who desires to practice in this state, to fill out an application blank furnished by the board, and file it with a diploma issued to him or her by a legally chartered school or college of osteopathy recognized by the board, having a course of instruction of at least twenty months, requiring actual attendance; and those graduating after June, 1907 of three years of nine months each in separate years, and after June 1915, four years of eight months each.

Those who graduate after June, 1907, will not be admitted to an examination and no certificate will be granted unless the applicant has as a preliminary education, before taking up the study of osteopathy, a diploma of graduation from a high school, academy, state normal school, college or university, or a certificate of examination for admission to the freshman class of a reputable literary or scientific college approved by the board.

The applicant must furnish satisfactory evidence of good moral character.

Histological, Physiological, and Pathological action of Radium Radiations, IV. Apparatus and Methods of Application, V. Treatment of Superficial Diseases, VI. Treatment of Internal Diseases. Thus the author gives a brief but clear account of the action and use of radium and its rays. In view of the limited knowledge of the therapeutics of radium the author says he has endeavored to distinguish ascertained facts and results not definitely proved. In view of the present discussions in the magazines relative to radium this book will surely be welcomed.

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Those who graduate after June, 1907, will not be admitted to an examination and no certificate will be granted unless the applicant has as a preliminary education, before taking up the study of osteopathy, a diploma of graduation from a high school, academy, state normal school, college or university, or a certificate of examination for admission to the freshman class of a reputable literary or scientific college approved by the board.

The applicant must furnish satisfactory evidence of good moral character.

Examinations must be taken in the following branches: Anatomy, Physiology, physiological chemistry and toxicology, pathology, diagnosis, hygiene, obstetrics and gynecology, surgery, principles and practice of osteopathy. There will be twelve questions on each subject, the applicant to answer ten only.

The examinations must be in whole or in part in writing, and in the English language. A general average of 75 per cent and a minimum of 60 per cent on each subject must be attained. The fee is \$25.00 and must accompany the application. If the applicant fails he can be re-examined at any subsequent meeting within a year without extra fee.

A temporary permit may be issued, good until the next meeting of the board. We will establish reciprocal relations with those boards who extend to us the same courtesy, upon the following conditions:

1. To those graduating before June, 1907, upon presentation of an application properly filled out and a certificate from some other state, or evidence of having practiced five years prior to making the application.

2. Those graduating after June, 1907, must have with their application a certificate from some other state issued after an examination, where the grade is equal to that required in this state. In addition to this they must have the preliminary educational qualifications referred to above; or if they have graduated from a reputable school or college of osteopathy and have practiced osteopathy for five years before making application, the board may grant a certificate. The fee is \$50.00.

SEC. 5, of our law reads: "Osteopathic physicians shall observe and be subject to all state and municipal regulations relating to the control of contagious diseases, reporting and certifying births and deaths, and all matters pertaining to public health, the same as all schools of medicine, and such report shall be accepted by the officers of the district to whom the same are made."

The law gives us the right to practice osteopathy as it is taught and practiced in our schools.

Those who practice without first complying with the law, upon conviction shall be fined not less than fifty nor more than two hundred dollars for each offense, or be imprisoned not more than six months in the county jail, or by both fine and imprisonment.

Examinations will be held in the months of February, June and if necessary in October of each year. The next examination will be held in Topeka, Kan., June 10, 1914.

All applications must be made on blanks furnished by the board, and must be filed with the secretary at least ten days before the date of examination.

All communications should be addressed to the secretary, Holton, Kansas.—F. M. Godfrey, D. O., Secretary of the Kansas State Board of Osteopathic Examination and Registration.

SUES FOR DAMAGES.

The C. W. Albright Co., Inc., of Chicago, has begun suit in the United States District Court for the Northern District of Illinois, Eastern Division, against the user of one of the McManis Table Co.'s tables. The Albright people claim the McManis table is an infringement on their patents.

APPOINT EXAMINER.

Dr. W. N. Stuver of Marceline, Mo., was recently appointed Osteopathic Examiner for the American Nat'l Assurance Co., of St. Louis, Mo.

GIVEN NEW TRIAL BY SUPREME COURT.

Dr. Chas C. Smith of Boise, Idaho, was recently given a severe penitentiary sentence for manslaughter, for the death of Clara F. Foy. Briefly the facts in this interesting case are as follows:

Dr. Smith was charged in a complaint filed by W. L. Harvey, prosecuting attorney of Elmore County, Idaho, with manslaughter, in that he did unlawfully and feloniously kill one Clara F. Foy. Dr. Smith waived preliminary examination before P. H. Gray, Probate Judge of Elmore county, and was filed and over-ruled. The case went to trial and Dr. Smith was convicted and was sentenced to serve not less than six months nor more than 10 years in the state penitentiary. From the verdict Dr. Smith appealed. The alleged facts of how the crime was committed are not given in the complaint. They are substantially as follows: Clara F. Foy was a school teacher at King Hill. She had been a sufferer for years from stomach trouble. Finally she called in Dr. Smith to treat her. She was fasted, only slight nourishment from an orange, it was alleged, being given her from time to time. For 40 days she so fasted and at last became so weak that she could not recover, and died. A coroner's jury returned a verdict that she had died from starvation. There was considerable indignation at the time.

In passing upon the sufficiency of the complaint, the supreme court says:

"It is necessary to in some way inform the party accused as to how it is claimed he committed murder, whether by shooting, by striking a blow, by drowning, poisoning, if he committed larceny, what property he took. In the case at bar, it will be discovered at a glance that the prosecuting attorney did not pretend to state how or in what manner, or by what means the appellant committed the crime of manslaughter. * * * A defendant before being placed upon trial for his life or liberty is entitled to be apprised not only of the name of the offense with which he is charged, but, in general terms, of the manner in which he is charged with having committed the offense."

It was contended that the court erred in allowing certain physicians to testify as expert witnesses as to whether or not the treatment employed by

the accused was such as a physician of ordinary skill exercising due care would employ in such a case. Commenting on this feature of the case and scoring such a procedure, the court says in its opinion:

"It was clearly erroneous for the court to permit physicians of a different school to testify as experts in a case of this kind as to the correctness and professional skill of the treatment administered. It appears that appellant herein was dully licensed osteopathic physician and that he professed to treat patients under the methods and practice of that school and not in accordance with what is known as the regular or allopathic school or any other school for the treatment of disease. It seems to be a sound and reasonable rule and well established by the authorities that the treatment of a physician of one particular school is to be treated by the general principles and practices of his school and not by those of other schools, and that a physician or surgeon is bound to exercise such reasonable care and skill as is possessed and exercised by physicians and surgeons generally in good standing of the same system of school of practice or treatment in the locality and community of his practice, having due regard to the advance state of the school or science of treatment at the time of such treatment.

"These are times of advanced science and liberal thought when every person may think and act for himself. Every community has its multitude of beliefs and modes of treatment of diseases and human ailments, and every citizen is absolutely free to adopt, believe or employ any one he pleases. If the results are not what he would wish or the rest of the community think they ought to be, he can nevertheless not be hauled into court and have his method of treatment and his school of thought tested by disciples or experts of some other school or belief."

ANOUNCEMENTS

Dr. Charles S. Green, Osteopath, announces the opening of his office in the Vanderbilt Avenue Building, Room 616, 51 E. 42nd St., on March 2nd, 1914.

Dr. Emma Hook Price, announces the removal of her office from Room 9, Whiteside Bldg., to Room 7, 281½ North Main St., Hutchinson, Kans.

Dr. H. S. Dean announces the opening of his offices in the First National Bank Bldg., at Durango, Colo.

Refused to Carry Chiropractor Advertising.—The McClure publications which include McClure's Magazine, The Ladies World and Harper's Weekly, have announced in reply to the objection of the A. O. A. Press Bureau, that they will accept no further advertisements from the National School of Chiropractic.

Rheumatic Affections—

all hot, painful, swollen, inflamed joints, due to faulty metabolism—retention, and impeded elimination, of body-waste; are speedily relieved and the way to physiological repair opened up, by the intelligent, prompt use of



Antiphlogistine

TRADE MARK

NOTE—Apply Antiphlogistine, as hot as can be borne by patient, around the **entire** joint; cover with cotton and a **comfortable** bandage. Remove when "ripe" or when peels off nicely. Antiphlogistine **does not interfere** with your internal medication, Doctor—its **composition** being known to you.

Antiphlogistine is prescribed by Physicians and supplied by Druggists all over the world.

"There's Only ONE Antiphlogistine"

THE DENVER CHEMICAL MFG. CO., NEW YORK, U. S. A.

A Normal Bodily Condition

May be maintained by proper nutrition and tone; a long convalescence can be shortened, and anemia and emaciation prevented by

BOVININE

Which contains the vital elements of nutrition and nerve tone, as indicated by the full, normal physiological standard, namely

PROTEINS
OXYHEMOGLOBIN
ORGANIC IRON
ALBUMINS

Write for Sample, also for one of our new Glass (sterilizable) Tongue Depressors.

THE BOVININE COMPANY

75 West Houston Street,

New York City

Base Ball Schedule.—The following schedule for the A. S. O. Base Ball Team, for the coming season, is announced.

Kirkville Normal School, April 10, 14, 16, and 20.

Wentworth Military Academy, April 24, at Kirkville.

Kemper Military Academy, April 30, at Boonville.

University of Texas, May 4, at Kirkville.

Kemper Military Academy, May 8, at Kirkville.

Kemper Military Academy, May 9, at Kirkville.

Warrensburg Normal, May 15, at Kirkville.

Warrensburg Normal, May 16, at Kirkville.

Westminster, May 18, Fulton.

Nebraska Indians, May 21, at Kirkville.

Nebraska Indians, May 22, at Kirkville.

The game with the Des Moines osteopaths is unsettled as yet.

President of Texas Board of Medical Examiners.—We are pleased to announce that Dr. J. F. Bailey, of Waco, Tex., has been appointed president of the Texas Board of Medical Examiners. The distinction that comes to Dr. Bailey was, of course, without his seeking, he having automatically succeeded Dr. Evans, deceased, to the position. We feel sure that Dr. Bailey will make an efficient president of the board, and we wish him an abundance of success in his new position.

Attention Iota Tau Sigma Alumni.—There will be a meeting in Detroit on April 18th, of I. T. S. Men for the purpose of organizing "A Great Lakes' Division of Iota Tau Sigma Alumni." We want all members present that can come, but particularly those from Michigan, Indiana, Ohio and Ontario. Further information can be received by writing Dr. H. E. Watkins, 43 West Western Ave., Muskegon, Mich., Dr. A. J. Garlinghouse, Munger Blk., Charlotte, Mich., or Dr. O. O. Snedeker, 92 Broadway, Detroit, Mich.

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Dr. Charlotte Winger Weaver to Mr. Walter Edward Wingerter, at Akron, Ohio.

Dr. Lazarus Banker Allabach to Miss Florence Estella McNair, at Brooklyn, N. Y., Feb. 18, 1914.

Drs. M. D. Siler and E. Rene Bastedo, on January 31st, at Kirksville, Mo.

BORN

To Dr. and Mrs. A. E. Vallier, at Columbus, Nebr., March 8, a son.

To Dr. and Mrs. Joseph W. Tarr, at Lidgerwood, N. Dak., Feb. 20, 1914, a daughter.

To Dr. and Mrs. Daniel Neil Morrison, at New York City, Mar. 9th, 1914, a son.

To Dr. and Mrs. G. I. McCune, at Stratford, Calif., Mar. 2nd, 1914, a son.

To Dr. and Mrs. L. Ludlow Haight, at Los Angeles, Calif., Mar. 9th, a son.

DIED

At her home in Seattle, Wash., the sister of Dr. Nellie Lone Parker, of Carlinville, Ill.

Dr. J. A. Still, aged 55, died at his home, 729 E. Locust Street, Des Moines, on the afternoon of Feb. 20th. His death was the result of a burn which he received about a week before, from scalding water.

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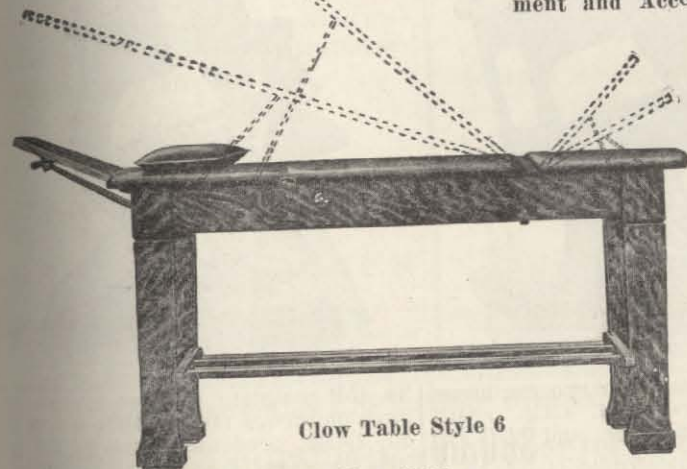


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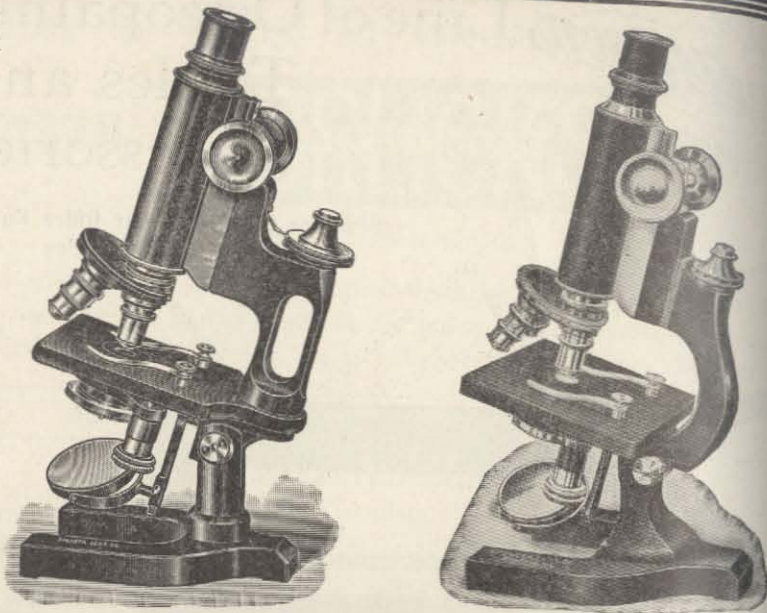
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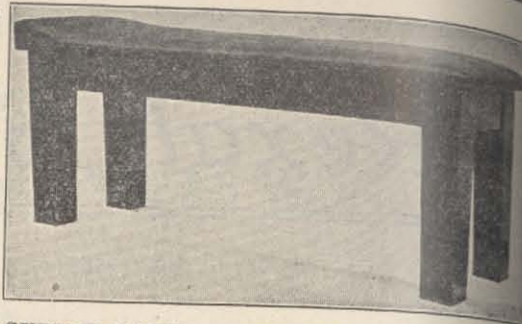
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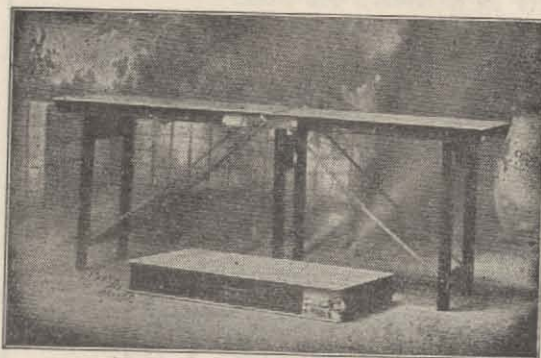
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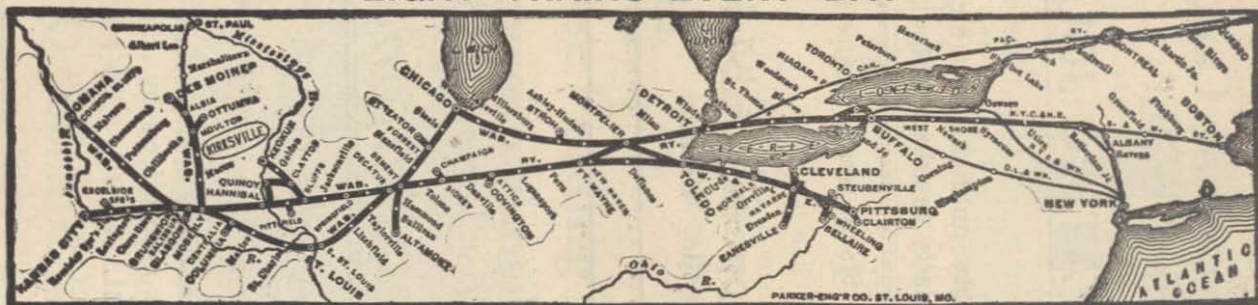


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