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CONTENTS.

PNEUMONIA, DR. GEO. LAUGHLIN.....	193
DIET IN ACUTE DISEASE, L. T. HALL, R. N.....	206
THE STUDY OF OSTEOPATHY, ORREN E. SMITH, D. O.....	208
OSTEOPATHY, A. D. BECKER, D. O.....	217
VALUE OF STARTING RIGHT, A. G. HELMSTEDT, D. O.....	220
EDITORIALS.....	223
ATLAS NOTES.....	227
INITIATES.....	229
AS AN OSTEOPATH YOU SHOULD KNOW.....	230, 246
AXIS DEPARTMENT.....	231
AXIS GRAND CHAPTER.....	241
LOCATIONS AND REMOVALS.....	248
ADVERTISERS' INDEX.....	249

PNEUMONIA*

By DR. GEORGE M. LAUGHLIN.

GENERAL. Pneumonia is one of the very common infectious diseases, probably one of the most common we have to treat in general practice. It is found in every country on the globe, attacks all races of people, and people of all ages. It is said by some authorities that probably more people die of pneumonia than any other disease, unless it is tuberculosis.

Types. The most common form is lobar pneumonia, and the next most common lobular, or broncho-pneumonia. It affects not only the human race, but is a common fatal disease of domestic and wild animals. Investigation has proven that it comes from the same cause, usually the pneumococcus.

Onset, Chill. The disease is characterized by sudden onset, with few,

Temperature. if any, prodromal symptoms. The first symptom is chill, and there is no other infectious disease where chill

is so common as in pneumonia of the lobar type. I never had a case of pneumonia where there was not history of a distinct chill lasting 15, 20 or 30 minutes, immediately followed by high temperature, perhaps 104, 105 or 106 degrees. This temperature continues from two or three to ten days, and terminates by crisis, as a rule, unless there is some complication. Sometimes it drops below normal from 104 or 105 degrees.

*Lecture delivered to 1910 class in Practice.

Pneumococcus. In practically all cases of lobar pneumonia the pneumococcus is found in the lungs and sputum. It is with difficulty, however, detected in the blood stream. This, no doubt, is the exciting cause of the disease.

Streptococcus. In addition to the micrococcus lanceolatus, we sometimes find other organisms, and sometimes the lanceolatus is absent. The micro-organisms which are sometimes found with the pneumococcus are the streptococcus, staphylococcus and sometimes the typhoid bacillus, but in 90% of all cases of lobar pneumonia you will find the pneumococcus. I have seen distinct cases of pneumonia where the trouble was entirely due to the streptococcus, however. These micro-organisms invade the lung and cause inflammation. Sometimes this disease is known as inflammation of the lungs, and as a result of the inflammation there is an exudate; this consolidates, and causes a solidified area, and a total occlusion of the lung.

Contagion. This disease is not contagious, that is, from one individual to another, although I believe that a person, if he is susceptible to the disease, if he has lessened resistance, would be more apt to contract the disease by being exposed than otherwise; but the chances are that the pneumococcus is present everywhere, and, if a person is in the right condition, if his resistance is lessened by cold, shock, nervous exhaustion or any of those things, he is apt to contract pneumonia on account of the infectious material.

Mode of Infection. We do not know exactly how the infectious particles are conveyed,—probably through the air, as infection takes place through the respiratory tract. Some have thought that it takes place primarily in the tonsils, where, as in diphtheria, there has been a preceding catarrh. Some times in pneumonia the patient has chronic catarrh, or suffers from cold, has a lessened function of the lymphoid tissue in the throat, which function is no doubt that of resistance to the invasion of micro-organisms.

Age. The causes for pneumonia are numerous. It is most common in middle aged people, or young adults. It is found occasionally in children, but is rather rare. Pneumonia in the aged is more apt to be of the hypostatic type.

Season. Pneumonia appears any time in the year, but we have more cases in winter and in the spring. The reason for that, no doubt, is that in winter and spring people are exposed to cold and wet; the changes in temperature are marked and rapid, and it is

a well known fact that pneumonia often appears following cold. Not what we generally term a cold, but following a shock which comes from exposure to cold. Say a man is out in the cold driving all day, or something of that kind. He comes home, and has a chill that night, that is the beginning. The incubation period is only a very few hours sometimes, and often there are no prodromal symptoms whatever.

If you are out in the spring, and there is snow on the ground, get your feet wet, you may then contract pneumonia.

Chill. Pneumonia, in nine cases out of ten, or even a greater per cent, is initiated with a distinct chill. That will help you frequently in making a diagnosis early. If you are going to get pneumonia from cold, it will come on right away, and not in a week or so afterwards.

Alcoholics. Pneumonia is a very common and fatal disease among alcoholics. Very few people who have used large quantities of alcohol for a number of years recover from an attack of lobar pneumonia. Alcoholism not only lessens the resistance and makes the patient more susceptible to the disease, but lessens the resistance to the disease after it is contracted. Very few, if any, old toppers get well. The mortality in drunkards is very high. This disease is sometimes complicated with delirium tremens in cases of alcoholism. This makes the outlook more grave. A patient with pneumonia should be kept quiet in bed until convalescence is well established.

Heart Complications. The heart is always complicated in pneumonia, and one of the principal duties of the physician is to keep the patient quiet, so that the least possible work is thrown on the heart.

Predisposing Causes, Terminal Pneumonia. Nephritis, diabetes, chronic stomach trouble, chronic diseases of any sort, nervous diseases or diseases of the liver—any of those chronic diseases render one more liable to pneumonia than they otherwise would be.

When one has a chronic disease, and finally dies of pneumonia, it is called "terminal pneumonia" because it follows a chronic disease.

A mild attack of pneumonia in a patient who has nephritis is apt to be more serious than in a person with previous good health, although the infection be more virulent. Where the liver, kidneys, or other internal organs are affected, this disease is apt to terminate fatally.

Leucocytosis. There is leucocytosis in pneumonia—that means an increase in the number of leucocytes. That is one of the very prominent blood findings, and it is a good indication. If the patient has pneumonia and does not have leucocytosis, the chances are that he will die with the disease. That is, if his resistance is so low that the leucocytes do not form in large numbers, there will be nothing to overcome the toxin of the disease.

Immunity. Why does the disease terminate by crisis? On account of the multiplication and proliferation of the pneumococci, toxin is formed, which produces the symptoms of headache, rapid breathing, increase in pulse and temperature; an antitoxin is formed in the system to combat the toxin, and this antitoxin is formed in the leucocytes. The white blood corpuscles create this antitoxin, and if these blood cells form in large numbers, enough antitoxin will be created to overcome the toxin, and the temperature subsides by crisis. The patient is then temporarily immune to the disease, not permanently. The immunity will only last for one season, and if the patient is exposed the following year, he may have it again. Some instances are recorded where individuals have it eight or ten times. Three times in one patient is all I know of, personally.

Lesions, Causative Factors. Lesions are causative factors in pneumonia. Rib lesions, lesions in the dorsal region of the spine, and cervical bony lesions are just as much causative factors as any of the other factors which I have enumerated.

Of course we cannot have pneumonia without infection—that is the thing that determines the character of the disease. Infection makes pneumonia, just the same as infection makes typhoid. The infection is the exciting cause.

Cervical Lesions. Cervical lesions will lessen resistance of the nervous system. They also affect the circulation to the brain. The brain is the center of the nervous system, and wherever you have lesions affecting the nutrition of the brain and spinal cord, you have lessened vitality in that individual. That patient is more susceptible to any kind of infection.

Dorsal and Rib Lesions. Lesions in the dorsal region and to the upper ribs will particularly affect the nutrition and circulation to the lungs. As a result of this, the resistance in the lungs themselves is lessened.

■ We not only have lessened resistance generally throughout the

body as a result of the lesions in the dorsal and to the ribs, but we have lessened nutrition and lessened resistance in the lung tissue, making the lungs more liable to infection.

Exciting Cause. The exciting cause is always infection, usually the pneumococcus or bacillus of Friedlander. We may have an infection of pneumococcus with staphylococcus, typhoid or streptococcus, or the pneumococcus may be absent and any one of these organisms produce the disease.

Symptoms, Onset. The disease comes on suddenly. The individual may be walking down the street, feeling fairly well, be seized with a chill, and it is possible before he can get home that he will have consolidation of the lung. Usually this does not take place for two or three days after the chill, but it is possible for the disease to come on that rapidly.

Rigor, Chills, Temperature. The onset of the disease is always sudden. Extreme rigor which lasts 15 to 30 minutes. The patient will shake in bed, and will suffer from the cold. This is followed by elevation of temperature. In a few hours it will run up to 103 or 104 degrees.

Old People. One of the peculiarities of pneumonia is that the temperature goes high except in very old people. In them the temperature does not rise hardly any. In one with much vitality the temperature will go up to 104, 105 or 106 degrees and will stay up, varying very little throughout the course of the disease, perhaps only one degree during the day.

Crisis. We do not have a regular temperature curve, as in typhoid, and it is not like malaria. The temperature terminates sharp off. At the end of the sixth or seventh day, the temperature will drop off quick, and then the patient will, for the first time, feel rested. Up to that time he has had delirium, an anxious expression on his face, no appetite, tongue coated and furred. After a patient has passed the crisis, he is past the serious part of the disease, and will probably get well, unless he dies afterward from heart complications.

Post-infectious Arthritis, Heart failure. Occasionally a patient may suffer from post-infectious arthritis, which may become quite general, and ultimately cause pyemia or septicemia. These cases are rare.

After the crisis the patient is free from the toxin of the disease. The infection is the cause of the toxin. This toxin affects the nervous system,

and often the patient dies from what we sometimes term heart failure. This is not necessarily due to a degeneration of the heart muscle, but due to the intoxication, a sort of paralysis of the heart.

Seat of Disease. This disease usually affects one lung only, and this is usually the right side. Perhaps in 60% or 70% of cases the right lung, or a part of it, is affected, and perhaps in 30% the left, and in the balance of the cases both lungs are involved, or double pneumonia.

Pains, Cough, Pleurisy. The patient will complain of extreme pain soon after the chill; there is congestion, and he will complain of sharp, shooting pains, which hurt him when he attempts to breathe. He will have a little cough. He is afraid to cough forcibly, because it gives him more pain, and the affected side of the lung he holds rather fixed, because there is always accompanying pleurisy, particularly if the whole lobe is affected. Pleurisy is the cause of the pain. There is little or no pain if the lung tissue alone is involved, but on account of the friction from pleurisy, there is considerable pain in all cases of pneumonia.

Consolidation. After a few days, when the consolidation takes place, he will lie on that side, turn the affected side down. At first he lies on his back.

Respiration Rapid. Respiration is rapid from the beginning. It will run up to 28 or 30 per minute, and later on, in bad cases, up to 40, and in some cases even to 50 or 60 per minute, and in children from 80 to 100 per minute.

In an adult, if the respiration is over 50 per minute for a day or two in succession, that is a very bad sign, very bad indeed, and the chances are that the patient will die.

What causes the rapid respiration? Is it the consolidation of the lung, lessening the air space? Not altogether. That is one of the causes only. If there is lessened air space, naturally the other part of the lung that is not consolidated, must do more work in order to supply the body with plenty of oxygen. In some of the worst cases, respiration only goes up to 28 or 30 per minute, while in milder cases the respiration sometimes runs up to 30, 40 or 50. Why? It is the nervous element, the effect of the toxin on the nervous system.

Ratio Pulse to Respiration. Another peculiarity that is not present in any other infectious disease, is the ratio between the heart beat and the respiration. Normally it is four to one. In pneumonia the ratio is disturbed greatly. In the beginning the pulse

is free and bounding, usually about 100 to 120, and seldom goes over that, except preceding a collapse. Where the pulse runs up to 160, the chances are the patient will die.

Diagnostic Ratio. In pneumonia the respiration will be half as many oftentimes, in number per minute, as the heart beat. Instead of having the ratio of four to one, we have a ratio of two to one. That is not true in any other infectious disease, and it is very important as one of the diagnostic points in pneumonia—rapid respiration and not so very much increase in rate of heart beat.

Sputum. Another symptom of pneumonia is the character of the sputum. Usually the patient has a little cough, sort of a dry, suppressed cough, in the beginning. After a day or two it will get more moist, and the patient will get up a little mucus. Then, in a day or two more the mucus will contain a little blood, which indicates congestion and inflammation of the mucus surfaces. Following that, the sputum usually changes to sort of a rusty appearance. There are usually streaks in the mucus of a dirty looking material,—looks like iron rust, except that it occurs in little strings, and that is known as "rusty sputum." It is one of the characteristic symptoms of the disease.

This will run on for a few days, but after the patient makes recovery, this disappears, on account of the absorption of the consolidated area, and the subsidence of the inflammation.

Nervous Symptoms. The nervous symptoms in pneumonia are headache, insomnia, a nervous, anxious expression on the face, and delirium in some cases. We have stupor in some cases, but stupor and delirium are not common in pneumonia like in typhoid. A great majority of the cases will go through the disease, without any delirium, though they may be very toxic, with respiration rapid and pulse fast.

Pathology. The disease is divided into three parts, the period of congestion or engorgement, which usually takes a day or two following the chill; the period of consolidation or hepatization, and the period of resolution.

Congestion. The lungs first become congested, the result is inflammation and pain, but as yet no consolidation. As a result of this inflammation there is an exudate from the mucous surface in the lungs. The epithelium erodes and comes off. The leucocytes sometimes come out, but not many yet.

Consolidation. The exudate is mostly fibrin and red blood corpuscles. This coagulates, and fills up the air spaces. This causes consolidation. The lung then feels and looks like liver. This is called hepatization. The lung is then friable, and will not float in water. The color is about the same as liver tissue. That is the second stage, or stage of red hepatization.

Resolution. Then, after a few days, resolution begins. Resolution commences about this consolidated area, and it turns gray. This is a degenerative process. The red area is invaded by leucocytes, then it turns gray or white, and in a few days after that the consolidated area becomes liquid. It gets soft and degenerates, liquefies and is expectorated or absorbed, the epithelium is reformed, and the patient gets well.

Termination. Every case of pneumonia terminates by resolution or abscess formation. If consolidation continues for some weeks and is not absorbed, and the lung does not undergo resolution, you will have an abscess.

Abscess of Lung. Abscess of the lung is a bad thing. It will destroy the lung, but seldom causes death. It will be chronic for a year or two, sometimes four or five years, and then the side of the chest will cave in—the ribs will fall in as there is nothing to hold them up. There is no expansion on that side, and it may be that ultimately the patient will have to have an operation so as to drain the abscess. The pleura becomes involved, pus gets into the pleural cavity, and the patient will have empyema. Sometimes the abscess breaks externally without an operation, and drains. Other times, the patient will cough up as much as a quart of pus at one time, and perhaps after a while he will get well. There will always be destruction of the lung where abscess occurs.

Duration of Disease. Pneumonia lasts from three or four days up to eight or ten days.

Second Chill. Occasionally we have cases where there is a second chill after two or three days or a week. That is usually an indication that there is a new infection, that the disease is beginning a new process in some other part of the lung. For example, say in the beginning the lower lobe of the left lung was involved. There is a chill followed by temperature. After a few days there is another chill; that is an indication that another part of the lung is involved. While it is in the stage of red or gray hepatization there may be a new involvement of some other part of the lung by engorgement.

The temperature does not subside by crisis in such cases, but by lysis, and if there are complications, such as typhoid, malaria, abscess or failure of resolution, then the temperature runs on and there is an irregular course. If there is abscess in the lung, the patient may have frequent chills after the abscess is well formed—daily chills; or chills every other day, due to the toxic products.

Chills, Fever, Sweats. Where there is good drainage we do not have chills and fever. Where an abscess is penned up, and the pus cannot get out, then it is we have daily, or frequent, chills, followed by an elevation of temperature, and sweats. That is why this symptom is sometimes taken for malaria, or miliary tuberculosis.

Physical Signs. The physical signs are important from a diagnostic standpoint. There are four methods of examination, i. e., inspection, palpation, auscultation and percussion. We can determine quite a little by all of these methods. We get different signs during the three stages of the disease.

Inspection. You cannot determine a great deal by inspection during the first stage, or stage of engorgement. You can determine some things if you are very careful. Before there is consolidation the side of the lung involved does not expand so fully as the side that is not involved. By inspection you can detect that. You can also detect it to a slight degree by putting the hands over the thorax, as the side involved will not expand so far.

Percussion. You cannot determine much difference in the early stages of the disease by percussion. The sound is almost the normal. Later on you will have no trouble in determining a great deal by percussion. As soon as consolidation occurs, the part of the lung that undergoes consolidation will be dull. If the consolidation reaches the surface, and is complicated by pleurisy, it will be as dull over that area as over liver. If the pneumonia is central, you cannot determine much. Central pneumonia is very rare.

Auscultation. In the first stage of the disease you can determine something by auscultation. Put your ear over the various areas of the lung, and listen carefully. Perhaps you cannot find anything that you might not find in some other condition that is not pneumonia, but you can tell there is an involvement of the lung.

During the stage of consolidation you cannot hear much over the consolidated area. Sometimes, unless the bronchial tubes are blocked,

you can hear a blowing sound transmitted even through the consolidated area. In the third stage, during the early part, it is just the same, but as soon as the solidified material begins to liquefy you can hear various rales, and gradually those rales will disappear by absorption or expectoration, chiefly by absorption.

Palpation. By palpation you can determine something, particularly in the second stage of the disease, or the stage of consolidation. After the lung consolidates, it fails to expand at all, you can both see and feel that. It will be perfectly still. The side not involved expands more fully than it normally would, and you can readily see the difference by looking, and feel the difference by putting your hands on the thorax. The air space is diminished, and the normal lung will tend to perform the duties of the entire lung tissue.

Although we use all four of the methods, we depend chiefly upon percussion, auscultation and inspection, not much on palpation.

Diagnosis. You can hardly make a mistake in diagnosing lobar pneumonia if you are reasonably careful. Take the symptoms,—the initial chill, with the temperature going up pretty high immediately after, and running a regular course with but little variation, and then as a rule subsiding by crisis. Then the other things I have mentioned in making the physical examination.

COMPLICATIONS. A good many complications may arise in connection with pneumonia, which can be avoided if the patient has proper care, is properly treated and nursed.

Nursing. In pneumonia, as in typhoid fever, good nursing and good care are the principal parts of the treatment. Of course the osteopath can help by direction and treatment. The medical men give little or no drugs in pneumonia. Their authorities say that no drug will do any good in pneumonia. They depend more on good nursing. The osteopathic treatment in connection with good nursing helps toward shortening the course of the disease.

Osteopathy. I am not inclined to make exaggerated statements about osteopathy. It does us more injury than good. Osteopathy is good enough to stand on its own merits, it does not need false claims. You are bound to have some deaths if you do a general practice and it is large enough.

Pleurisy. The most common complication, (and it is so common that it may almost be considered a part of the disease), is pleurisy. The pain which comes in the early stages of pneu-

monia on respiratory movement is due to pleurisy. There is not much pain after the lung becomes consolidated, but preceding that time there is often excruciating pain.

Pleurisy is a very common complication of tuberculosis, and where a patient has chronic pleurisy it is an indication that he is probably tubercular.

Adhesions. In pneumonia pleurisy will probably cause no serious trouble, although there may be some adhesions remaining between the pleural surfaces. If there is effusion, and the cavity fills up with fluid; if the pleura is invaded by microorganisms which are in the lungs, and if this fluid in the pleura is not absorbed readily, pus will form there. That is one of the worst places in the world to get pus. There is no place for it to get out, and when pus forms in the pleural cavity we have empyema.

Empyema. This runs a chronic course. Sometimes the pus breaks back through the lungs, and comes out through the bronchial tubes. Sometimes it will break through between the ribs in the mid-axillary line. If the pus forms in considerable quantities it will debilitate the patient, and will not be absorbed readily. It is often necessary to cut through the ribs and put in a drainage tube.

Endocarditis. Some involvement of the heart is another complication in pneumonia. The patient may have endocarditis, does have it in some cases, and as a result of that there may be embolism. Little inflammatory growths in the valves of the heart break off, and get into the circulation and lodge in some vessel.

Myocarditis. Myocarditis is not so rare. Two patients I have seen, one of whom I treated, died during the period of convalescence as a result of some slight exertion. In both the crisis had passed, and they were both apparently doing well, the lungs were clearing up. One got up and walked across the room, and died where he stood from dilatation of the heart. The heart muscle had softened from inflammation but would have become normal had he remained quiet.

Quiet in Bed. It is very important to keep your patient quiet in pneumonia, diphtheria and diseases of that kind. Listen to the heart. It should beat evenly, and the position of the heart should be all right. For two or three weeks after the crisis, keep the patient on his back, quiet in bed.

Heart Dilatation.

Sometimes a patient dies from dilatation of the heart without any exertion, the heart muscle being so badly affected by the toxin of the disease.

Nervous Symptoms.

Nervous symptoms are not so marked in pneumonia as in some other infectious diseases. There is some headache, sometimes delirium, especially in children—children may have convulsions at the time of the chill, and fits sometimes for a day or two, but in adults we do not have any serious nervous symptoms as a rule.

Paralysis.

It is possible following pneumonia that there may be paralysis of some kind, due to an embolus in the brain following myocarditis; may be post-infectious paralysis due to the toxin of the disease.

Post-infectious Arthritis.

Pneumonia seldom appears in connection with tuberculosis but one other complication, or sequel, which is quite common is post-infectious arthritis. During the period of convalescence the patient will commence to complain of pain in the joints, and in a day or two the joint will swell up so he cannot move it at all, and gives extreme pain. Unless something is done immediately to give relief, in the course of a week or ten days that joint will suppurate, an abscess will form, the joint break down, and cause the patient to be a permanent cripple. It is due to the invasion of the joint by the pneumococcus, causing acute inflammation and suppuration, and destruction of the joint tissue.

I have had several cases of this kind to treat some years after the patient has had pneumonia, treatment being given to relieve deformity. The acute inflammation can be relieved by proper treatment. Manipulate the spine, keep the bowels open, and use hot applications in cases of post-infectious arthritis over the affected joint. The surgical treatment is to make an incision and put in drainage—that usually results in ankylosis of the joint. It stops the destruction of the joint, but usually results in bony ankylosis.

Prognosis.

The prognosis depends largely upon the condition of the patient when you receive him, the age of the patient, the patient's vitality and the amount of lung tissue involved.

Right side pneumonia is more difficult to handle than left. Where both lungs are involved it is more severe than when only one is involved. If the patient has good vitality and has good care, the chances are that he will recover. If he has a poor constitution, we may not be able to do much.

TREATMENT. Do not be afraid to treat a patient vigorously who has pneumonia,—give him plenty of treatment,—you can scarcely overdo it. No use in giving medicine, it will not do any good.

Fresh Air.

On account of the air space in the lungs being limited, it is necessary that the patient have as good air as possible. Be sure to see that the room is properly ventilated. In bad cases I have had the patient well wrapped up in cold weather, had a window thrown up, and put the patient by the window so he would get good air. Have the room at proper temperature, and give him plenty of fresh air.

Diet, Bath.

The diet should be light, as in all infectious diseases. The bowels should be kept open by abdominal treatment, and a daily enema if necessary. The mouth and teeth should be thoroughly cleansed, washed daily or several times a day even. The patient should be given a sponge bath once or twice daily, especially while the temperature is high. Do not let a draft on him while giving the bath; then give osteopathic treatment.

Lesions.

As I told you before, you will find lesions all along the back; you will find a rigid spine, twisted ribs, bad neck, breaks, and various abnormal conditions along the spine in connection with the vertebrae and ribs. Treat these thoroughly two or three times a day.

Osteopathic Treatment.

If you are called early, treat the patient vigorously. Do not be afraid to stir up that spine. Thoroughly relax the spinal muscles. If you see the patient several times daily, then, and treat vigorously, you can lessen the amount of congestion, and if you do, you will limit the disease—or you may abort the attack, even after the chill has made its appearance. It is not probable, but it is possible.

Manipulation.

Give plenty of treatment in pneumonia all through the disease. Have the patient lie on his side in bed, spring the back, lift the ribs, spring the ribs, and work along each side of the spine, relaxing the muscles, which you will find very rigid. Treat fifteen or twenty, or even thirty or forty minutes, and you will get the spine relaxed.

Adjusting Lesions.

In the matter of adjusting bony lesions, it is not always best to do so while the patient is so sick, but you can improve the condition by establishing motion.

DIET IN ACUTE DISEASE.

L. T. HALL, R. N.

The preparation of food for those who are seriously ill is of greatest importance, since the life of the patient may depend upon the maintenance of strength during the acute stage or on the recuperating power during convalescence.

In acute diseases we have fever. Then we must consider the effect upon the digestive system. Where there is fever there is loss of weight, urea is increased, carbonic acid and water are excreted in larger amounts. These losses must be replaced now though there is less assimilation of food, loss of appetite, less efficiency of the digestive juices. In the process of digestion all food becomes liquid. Therefore liquids give the system less work to do. Predigested milk possesses advantages because it aids in assimilation of milk without adding to its bulk.

In measles, diphtheria, pneumonia, typhoid fever, malarial fever, scarlet fever, and acute nephritis, milk is one of the best liquid nourishments to be given, so long as it is assimilated. Peptonizing makes it more readily tolerated. If curds appear in the stool, dilute the milk with lime water. Always give plenty of water, which is readily absorbed by the tissues.

In typhoid fever the yolk of the egg should not be given. In acute rheumatism avoid saccharine diet and meat juices. Even in convalescence meat should be avoided. In scarlet fever a diet should be given which will avert nephritis. Hence large quantities of milk are given, and starchy drinks. Should acute nephritis develop water is the best diuretic. Two or three pints of skimmed milk in divided quantities given at stated times, diluted with hot water or effervescing water. Between hours for milk, toast water, barley water, cream of tartar and lemon drinks may be given, as acids are good diluents. Remember that small quantities given every two hours, or even every hour, do more good than larger quantities less often. Make the diets look tempting and appetizing.

Acid Drinks.**IRISH MOSS LEMONADE:**

One-fourth cup Irish moss.
Two cups boiling water.
Four tablespoons lemon juice.
Sugar.

Soak, pick over and wash the moss, soaking one-half hour. Pour off water and add boiling water. Cook until syrupy, keeping it just

below boiling point. If it becomes too thick add more hot water. Strain, add lemon juice, and sugar to taste. Serve hot.

LEMON WHEY.

One cup hot milk,
Two teaspoons sugar.
Two tablespoons lemon juice.

Heat milk in double boiler. Add lemon juice. Cook without stirring until the whey separates. Strain through cheesecloth, and add sugar. Serve hot or cold.

Albuminous Drinks.**EGG BROTH.**

Yolk of one egg.
One tablespoon sugar.
Speck of salt.
One cup hot milk.
Brandy or other stimulant, as desired.

Beat egg, add sugar and salt. Pour on carefully the hot milk. Flavor as desired. Dried bread crumbs may be added.

EGG NOG.

One egg.
One tablespoon sugar.
Speck salt.
One-half cup milk.
One tablespoon brandy.

Separate egg. Beat yolk, add sugar and salt and beat until creamy. Add milk and brandy. Beat white until foamy, and fold in lightly. Serve immediately. Any flavoring may be used instead of brandy.

EGG NOG—(White Only).

One egg white.
One-half cup milk.
One tablespoon sugar.
One teaspoon lemon extract.
Made as the other egg-nog.

Starchy Drinks.**RICE WATER.**

Two tablespoons rice. One pint cold water. Salt. Milk.
Wash rice, add cold water and cook one hour until rice is tender. Strain and dilute with boiling water or hot milk to desired consistency.
CRUST COFFEE: Thoroughly dry and brown crusts of brown bread.

Pound or roll until fine. Pour boiling water over and let soak fifteen minutes. Strain and serve either hot or cold.

BEEF JUICE: Select a thick piece of steak. Broil or warm slightly, to set free the juices, then squeeze out the juice by means of a press or lemon squeezer, into a slightly warmed cup. Add salt and serve at once.

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THE STUDY OF OSTEOPATHY.

ORREN E. SMITH, D. O.

This article is the outgrowth of Dr. A. T. Still's message to the American Osteopathic Association delivered to the convention at Minneapolis by his son, Dr. Charlie. The message was this, "I am still studying osteopathy."

After thirty-five years of careful study, by a mind great enough to recognize the principles of osteopathy in their incipency, we see that man engaged in the study of the same subject which has already yielded such rich harvests to all suffering humanity, and which is destined in time to revolutionize the practice of the healing art. To him the subject of osteopathy is ever new. He awakens each morning with the master passion born to all inventors and discoverers. He is a creator—a maker of things new. The fascination of discovery is ever upon him leading on into the unfolding of those secrets which nature has concealed from the eyes of the masses. Only the close observing student is ever rewarded with nature's secrets. Only those who are willing to toil long and faithfully, and give their minds unreservedly unto patient investigation of law and order cause and effect, catch the first glimpses of great principles in science. Only the thoughtful are capable of appreciating system and sequence. Men who think, work out problems by analyzing, classifying, eliminating, and synthesizing known facts and phenomena. The capable scientist is he who has a multitude of known phenomena and kindred laws at his service, which can be used to prove or check up hypothetical solutions of other unknown laws and phenomena. The material of his mental workshop is known and verifiable evidence, and unto this stock he adds constantly, as the years go by, becoming more capable of unlocking closed doors of other knowledge which the world is ever waiting to welcome and enjoy.

It is no wonder some of us are failures. We do not study. We do not use even that which we have. We do not apply our knowledge. We scarcely ever follow out a consecutive line of thoughts along a given course until we have reached the end of thought, or solution of the

problem. We are thinking about base ball, or the new 1910 model of "the swellest machine on the market" or the new Fall hats and Winter gowns. How many restless nights do you suppose the founder of osteopathy has spent in the past thirty years studying latest models in machines, or Parisian gowns?

But you say, "I do not want to pay that price for success." And that is just the reason you do not succeed. You will not pay the price!

All great men leave the toys of childhood back in the nursery, as they grow up and reach manhood. A full grown man is supposed to have outgrown his childish delight in extracting hilarity from the antics of a goat, or other similar amusements.

All great men are found at maturity, grappling with earth's mightiest problems. But do not think that life to them is dull and uninteresting. Their very life is a passion for work whose flame burns low only at such times as their energy of mind and body is exhausted.

The devotee of pleasure becomes satiated at times and requires new forms of pleasure to excite his jaded appetite. Not so the man who pursues the problems of science. As the years go by he works with ever increasing pleasure and devotion. He loves the silent hours of thought and study as the wild animal loves the mountain streams and canyons. Such is Dr. Still's life.

Many of us have a true desire to study but find it hard on leaving school to discover a useful system of study that is not also dry as dust, and difficult as Greek ms.

How to study osteopathy may be answered at least in one way, by tracing out the relation of osteopathy to other sciences composing the healing art. To practice osteopathy intelligently requires a knowledge of all subjects relating to health, because the restoration of health to the patient is the ultimate goal.

First, let us consider how osteopathy is related to symptomatology.

Symptoms are among the first evidence we meet when we see a new patient; they aid us in our study of the case in making a diagnosis; they guide us in our treatment, warning of too much or too little treatment to this or that part; they mark the improvement from day to day and week to week; and at last determine for us, as well as the patient, that the case is well and ready to dismiss. Symptoms are determining standards and mark progress as well as relapse. By them we determine the amount of treatment required at each treatment given a patient. To not understand the reaction in symptoms of a patient after treatment, is nothing short of folly. If the result of treatment cannot be estimated approximately at the time it is given, how are we to direct the course of progress

of recovery? Too much treatment means failure just as certainly as too small an amount. Symptoms arising as the reaction from treatment indicate the beneficial or deleterious amount of treatment given. Study symptoms, you will need them—and for another reason than that already pointed out, viz.: your patient studies them! He knows that he has certain symptoms, and will wonder if you know enough about his case to know that he has those symptoms. He may not know the significance of symptomatology, may not know why he has such symptoms. But you may be sure of one thing, he will expect you to know why such symptoms are present and what relation they have to his condition and what use you are going to make of them, and your explanation of their appearance and presence. I have had patients come to me, and when I would ask them what ailed them they would reply, "That is what I came to you for. You tell me what is the matter with me." Then, if you do not know symptoms, woe betide you! You are up against the hardest guessing contest man ever meets.

Another kind of symptomatology that you will never know too much about, but one in which you may easily know too little, is physical symptoms, or physical diagnosis. It is evidently manifest that we must first recognize a lesion before we can remove it. Now it pays all of us the best of dividends on our study and attention, and care, that we bestow on recognition of the abnormal physical man.

Many failures to help patients begin with ignorance of physical conditions of the patient. The definition of the word "recognize" is "to know again," and it may be aptly said of a true and deep knowledge of abnormal anatomy that to recognize it we must meet it often and become familiar with it through repetition of tactile impressions.

My first experiences along those lines were rather pathetic. While in school I was very sanguine of my ability, both to diagnose and treat. But upon putting into practice my ample theories, I found that conditions that to me were lesions when treated, produced no perceptible effect upon the patient, and that improvement of the patient was far from satisfactory.

The acquirement of an adequate tactile education, by which physical symptoms become recognizable, is of great importance, and difficult as it is important. Tactile technique cannot be explained. It can only be acquired. It is a psychical interpretation of physical impressions, which requires close study and observation on the part of the physician to become familiar with. There is a language of sensation, which has no counter-part in spoken language. There is no text book, or unwritten on the interpretation of sensation. That inherent consciousness

of actual condition, that power to differentiate abnormal from normal anatomical tissue is a subtle sixth sense which has made some practitioners believe others had supernatural power in the diagnosis and treatment of disease. There is nothing supernatural about it. However, I will say that some persons possess the power to appreciate and interpret tactile impressions far in excess of others. But keen observation and careful study will sharpen the dullest perception amazingly.

The study of biology affords one of the best opportunities for the investigation of vital phenomena in their pristine state that we have. A study of biology brings us into closer relation with physical life, and gives us a more intelligent comprehension of the primitive, as well as fundamental laws of being. Here we study the influence of environment upon cell-protoplasm. We see the reaction of these minute organisms to light, heat, moisture, molar agents, etc., and out of these phenomena of being we interpret the laws of higher forms of life.

We, as osteopathic physicians, are especially interested in these findings because our methods of treatment are based upon natural laws of life. We are interested in discovering and helping to establish, when absent, the natural laws of being. We have no artificial system to foist upon nature.

We do not believe that we can improve on the laws under which life is manifest, for the simple reason that we do not yet know what constitutes life. We believe that an intelligent compliance with established laws of vitality, furnish the greatest amount of vitality available to the organism. That by understanding the well established limitations of laws of organic life, and by complying with these laws, we can aid in making these laws operative, by furnishing a favorable environment to organic life. Therefore we are greatly concerned as to what these natural laws are, and what constitutes a compatible environment.

In connection with the study of biology I wish to indicate one of its many branches which may be studied with profit by us, and that is the influence of molar agents upon protoplasm.

These molar agents, as Davenport says, may be either solid or liquid, and may vary in application from impact of liquid to contact resulting in mutilation. The subject is essentially one of reaction of protoplasm to mechanical stimulation.

Many lifeless compounds such as, chloride of nitrogen, picric-acid derivatives, gun-cotton, nitro-glycerine, etc., are easily disorganized and produce violent explosions by mechanical disturbance. In protoplasm of the living cells of animals we have this unstable nitrogenous compound, and by mechanical irritation these unstable molecules of explo-

sives may be disorganized by mechanical stimulation. This very fact opens up a world of possibilities to the osteopathic physician in that through this means metabolism may be influenced, mechanically, and vital processes modified. Although the elements of metabolism are chemical, they are at the same time responsive to mechanical stimulation. To have a moleculcular change in chemical compounds, by mechanical stimulation, is to throw wide the entrance to the field of mechanical therapy. By this route we may approach the citadel of vitality of the living being, and influence profoundly those storehouses of energy which are locked in latent state.

In his study of the effect of molar agents upon the metabolism and movement of protoplasm, Davenport shows how definite the reactions from mechanical stimulation are in unicellular organisms. He states that phosphorescence of organisms is a slow process of combination, (i. e., oxidation) of organic substances brought about by mechanical irritation. Every stroke of the oar calls forth a gleam along its blade, as the boat is rowed through the water containing these organisms.

In other organisms this mechanical irritation produces secretion. When thalassicola are disturbed by other organisms swimming against their pseudopodia these organisms secrete a sticky substance which holds the disturbing organism fast. In lusitania fragments of glass, or seeds sprinkled on these organisms causes a freer secretion from their glands. Meltzer has shown that violent agitation of bacteria is sufficient to not only interfere with their growth but that even death may ensue.

When alga cells are freshly transferred to the slide the disturbance causes cessation of movement. When stamen hairs of tradescantia are crushed, the streaming of plasma ceases. When chara are pricked at the node by a needle, without penetrating into the cavity, movement ceases for a minute or two.

The mechanical disturbance of the pseudopodia of orbitolies or diatomea is followed by a retraction of their pseudopodia. This retraction is followed by aggregations of the protoplasmic mass around new centers of attraction, with loss of cohesive power, and tendency to spherical formation. In all non-living semi-fluid substances the tendency to assume a spherical form is due to the law of surface tensions. The fact that this law of surface tension is overcome by protoplasm is evidence of vital properties in these organisms in some form, and when it is lost, that vitality is at least latent and perhaps absent altogether. This response in movement of these organisms to mechanical irritation corresponds to contraction in muscular tissue of higher animal life. Here we have the phenomenon in its most simple state.

The degree of response of protoplasm to mechanical stimulation, it would seem comes within the range of utility. If the organism is stimulated by contact of mild form, or if the stimulation is kept up for a considerable time the reaction of the organism to the stimulus tends to decrease or disappear entirely.

Davenport quotes Castle as saying that "a colony of stentors in an aquarium, being constantly struck by tubifex waving back and forth, did not contract as they usually do when struck." Here we have an acclimatization of protoplasm to its environment.

These phenomena of secretion metabolism, motility, adaptability, etc are all closely associated with life. These and similar other phenomena constitute the laws of being, and when we understand them and make practical use of them in the study and treatment of disease, biology will then be no dead language to us but a book of living active law, interesting as life itself.

The fact that protoplasm is responsive to both abruptness and quantity of mechanical stimulation applied to it, suggests to us a means of modifying our treatment to suit each individual case, and every condition arising in the individual case. In other words this responsiveness enables us to measure and administer the correct amount of treatment.

If the response is too active, if the reaction is too vigorous for the patient to endure without complaint, then by all means reduce the amount of treatment both in frequency of administration and in abruptness of its application. Remember it requires good judgment to use osteopathic remedies successfully, and obtain the best possible results for our patients.

Biology has a vast amount of information for us which we may turn to good use if we will but apply its laws to the human body in osteopathic practice.

The study of psychology from an osteopathic viewpoint is not a very attractive field when we first glance out over it. But like some other uninviting fields, it improves on acquaintance.

The study of psychology is much in evidence now. All magazines have articles containing psychical problems. Dramatic art is displaying psychological situations. Books, good, bad, and indifferent, are written on the subject without number. The "psychological moment" is a phrase one hears on every one's tongue, and is indeed here.

Psychology is a subject about which a great deal is written and but little known. However, there is some good serviceable information along with the chaff. To know the significance of mental phenomena is to come into possession of valuable information, in that control of the organism is established and maintained through psychic functioning.

Psychologists arrange mental phenomena into three groups; feeling, knowing, and doing, or sensation, perception, and volition. Stimulation, either external or internal, to the organism, produces an impression of some kind which is known as sensation. When this sensation is interpreted we have perception, which is an intelligent comprehension of the meaning of sensation. The use or application we make of this intelligence results in action or volitional control of the organism.

Of course these three groups of psychic phenomena are merged into each other by overlapping and intervening until only in a general way does the distinction hold true. But this classification helps us to understand and study the phenomena.

Reception, perception and actuation, then, is the route along which psychic phenomena travel.

Of the tens-of-thousands of impressions which are made on the nervous system, hourly, only a comparatively few of these, ever enter the seat of consciousness. The major part of impressions are retained in the marginal zones of the conscious field and constitute the subconscious or subliminal self. Out of this subconscious field the involuntary organic functions of the organism are controlled. Yet it must not be thought that organic functions have no means of communication with the higher zones of consciousness. They have a very intimate and direct connection, but a connection that is never used except in emergencies. These pathways are only opened up under certain conditions.

The working of the nervous system in its production of the subconscious and conscious states of being furnishes an exposition of some psychic laws.

Joseph Jastrow gives a very lucid picture of the workings of the mind in these words, "There exists in all intellectual endeavor a period of incubation, a process in great part subconscious, a slow, concealed maturing through absorption of suitable pabulum.

Schopenhauer calls it "unconscious rumination," a chewing over and over again of the end of thoughts preparatory to its assimilation with our mental tissue; another speaks of it as the red glow that precedes the white heat. The thesis implied by such terms has two aspects: first, that the process of assimilation may take place with suppressed consciousness; second, that the larger part of influences that in the end determine our mental growth may be effective without direct exposure to the searching light of conscious life. Both principles enforce the view that we develop by living in an atmosphere congenial to the occupation that we seek to make our own; by steeping ourselves in the details

of the business that is to be our specialty, until the judgment is trained, the assimilation sensitized, the perspective of importance for the special purpose well established, the keenness for useful improvisation brought to an edge. * * "

In this picture which Jastrow sketches for us of the workings of the subconscious mind, we see that these mental phenomena in their development are very closely related to the physiology of the nervous system.

A single stimulus may gain entrance to the afferent pathways of the nervous system; but before the impulse can enter the efferent pathways the original stimulus may have to be repeated successively and continuously for a given period until a summated or cumulative reaction is produced in the nerve cell of the reflex arc. Then actuation of the motor field is produced.

And it is none the less true of mental action, that growth of its product is by repetition, summation, and maturation of single impressions. Submerged impressions are ever ripening into the mature state. They are ever progressing toward that state of awareness and undergoing that transformation which is the transitional stage, from the impression to the idea. Repetition of the same stimulus, over and over again, is the method by which the impression is deepened and fixed in a permanent record in the nervous system. And it is wonderful, too, that this ripening or "incubation" process, as Jastrow calls it, can go on without the direction of consciousness. Yet such is the case. If we only put ourselves into the attitude to receive impressions, the maturation process progresses involuntarily. Our receptivity to impressions is the beginning of conscious life.

The practical application of these laws of mental science may be found in a number of ways.

It may be said that a physician is no more likely to succeed in his line of work without proper training and practice, than is the banker or merchant, without qualification and application. A physician's life is essentially an intellectual life. He must understand the laws of mental growth and development if he is to accumulate a full store-house of facts, out of which a ripened and mature judgment has its source. A constant supply of suitable pabulum, in the way of impressions, must be furnished the mental faculties, in order to insure an even and satisfactory production of mental phenomena. In other words he cannot know diseased conditions and how to overcome them unless he studies them.

The mind of the physician must be steeped in the history of disease until it is saturated with all the details—until each distinctive

quality of disease is familiar enough to be reliable. The physician of to-day is heir to all the evidence relative to diseased conditions that has been produced by the past, and to come into possession of all that vast storehouse of knowledge than others have had, is to bring to his command the strength and power of all those who have preceded him. Psychology teaches man how to study.

Another very serviceable rendition of psychology to the profession is its illumination of personality. The relation of the physician to his fellow-man and client, is of such a nature that a deep and renewing knowledge of human nature is a prerequisite to success. Before one has practiced the healing art many years he realizes that he is not dealing with inanimate things, but that men and women are living beings, swayed by emotions, influenced by reason, guided by counsel, and that control and direction of their mental state, is oft times even more difficult than the requirements of their physical condition. The personality from illness is of course more erratic and fluctuating than the personality of one in health, which is all the more reason why we should be familiar with normal personality in order to understand this ablewarrant state.

The manner in which psychology aids us in the understanding of personality is somewhat peculiar. It seems to the writer that we reap more of the results than of the mechanism itself by its study. There is a power to interpret the actual mental state of the patient which partakes largely of intuition or instinct. There is a rapid and comprehensive summation of evidence which cannot be put into words or laws. Perhaps it is the working out of a number of amalgamated psychic laws which produces the sum total of results. However, that may be, we know that the range of personality is wide, and that its study is imperative.

Many of our patients come to us with prejudiced views as to our method of treatment. This prejudice may be exhibited frankly or with secret cleverness. The patient may give assent orally to every word we utter, but mentally dispute each statement we make. Some patients want to be coaxed to take treatment, while others want a clear cut exact presentation of their case in as few words as possible. Some are taciturn and alert to catch us up on some point we are explaining, while others are verbose and facetious appreciating a good joke for more than the scientific explanation of their diseased condition.

The mental faculties of a physician should be flexible, alert and durable. He must be pliable, and at the same time possess enough elasticity to regain his first position in argument. In other words he should be the possessor of a personality that is responsive to as wide a

range in personality as that displayed by all his patients. The study of psychology is of great service to us in the understanding of personality.

The sciences are rich in these natural laws of life, which as yet have found but meagre application in osteopathic practice. And because the practice of osteopathy is founded on the natural laws of being, it is pre-eminently in accord with all true science, and it remains for us to apply these laws in our practice, to make use of that which is at our command. Knowledge is useless without its application.

Suite 510 Traction Terminal Bldg.,
Indianapolis, Ind.

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OSTEOPATHY.

(Excerpts from Dr. Becker's talk given at Atlas Hall the evening of November 20th, 1909.)

* * * * The men who come here are serious-minded men and are in earnest; they are men who are anxious to get the best that is to be given, and I would like to see that idea carried even farther. I want to see the men in this school develop as osteopaths, I want to see more men develop as true osteopaths, not taking up osteopathy merely as a method of gaining a living. There is no question about that. It is a "safe bet" that every man here is going to make a living and more than that,—that feature can be laid aside. I want to see men who are so thoroughly founded in osteopathic principles that they will not have to add an M. D. degree after they graduate here.

Heretofore a man who had any leaning toward surgery necessarily had to go to medical college to get that phase of the work. That is not true any more,—it is not true to-day in the A. S. O. We are seeing surgery here that is on a par with surgery seen anywhere.

There is another side of the question which appeals to me quite a little. To illustrate, I had a patient at the Infirmary for a few weeks who had to go away on account of some business matters. He had to stop treatment here before he wanted to, and wished to continue treatment at the place where he was going. He brought me a card clipped from a newspaper, that of a certain D. O., M. D. He said, "I want to take osteopathic treatment, but this fellow is kind of mixing methods, and I don't know whether he would be the one to go to or not."

People are going to come to you for osteopathic treatment, they expect you to be a little of a crank on the subject, and they will forgive you if you are; they will not forgive you readily if you are not.

Again, after looking at the proposition for a number of years, I am convinced that the practice of osteopathy and the practice of medi-

cine are absolutely opposed. You cannot mix the two practices, at least I do not believe you can. Osteopathy banks on the fact that the body has the inherent capacity to recuperate after injury. The practice of medicine banks on the supposition that it has not, and it is going to be very hard to reconcile these two ideas.

I believe that a man will make more money, and be a better man, be more interested and more solid in his work, if he does one thing, than if he tries to be a little of everything. It was only about 200 years ago that the big universities of the world began to subdivide their courses at all. Up to that time they tried to teach a course in the universities which covered all subjects. Now days you can take 300 or 400 separate and absolutely distinct courses in any large university. This is the day of specializing, and the idea I wish to convey is that we are going to do better by being osteopaths than we are by being D. O., M. D's. I think it would be hard to be thoroughly conscientious in having the two systems in one's hands in treating a case. One is bound to be divided in opinion as to just what he should do. I believe that the strength would be with the man who is out and out one thing. I have respect for a man who is a practitioner of medicine and thoroughly belittles the idea that an osteopath could do any good whatsoever. I say I thoroughly respect that man because he is a crank in his line. I am not arguing that we should be as severe or extravagant as that. I believe that we should have that same feeling of magnanimity that allows another man to pursue his way along side of us and not try to interfere with his thinking or his doing—not that. But if I had a watch to repair I would not feel any more confidence in a watchmaker if he also could hang wall paper. I would feel rather more confidence in a man who was a watchmaker, and did not know anything else, a man who is thoroughly wrapped up in his own line of work.

Another thing, osteopathy is good enough and big enough to handle the business. We do not need medicine. The first year or two I was out in practice if I got a case of pneumonia I thought immediately that strychnine should be used. I knew the pathology and symptomatology of pneumonia, and I knew that in a few days we were going to have a very heavy burden thrown upon that heart and it ought to be stimulated and supported. That was true, but I guess I was the one who needed the strychnine—I found that the patient did not. I found out that I could support the heart by osteopathic treatment, and I have seen some wonderful examples of that in practice.

I look for the day to come, and not far distant, either, when in the larger cities, where there is a little more chance for such things, there

will be osteopathic specialists, an osteopath, for example, who makes a specialty of treating stomach disorders only, an osteopath who makes a specialty of treating eye, ear, nose and throat in non-surgical cases; a man who does osteopathic obstetrics only—these things are going to come. We are going to laugh some day at the idea of a man trying to cover the whole field of therapeutics—being a little of everything and not very strong on anything.

I have met those men in practice—men who take medicine, osteopathy, Weltmerism, Christian Science, electric therapeutics and a course in massage.

Now I am suspicious of an M. D. who takes up osteopathy. That does not necessarily mean that an M. D. might not suffer a change of heart, but I mean an M. D. who felt that his own therapeutics was not large enough to meet the demands of his patients, and he was going to add a little by studying osteopathy. He is not going to do anything—he was already weak, and he is going to be weaker. I would like to make this strong enough so that you will at least think about it—we are going to be better men, better practitioners, we are going to accomplish more by being osteopaths purely.

I have no doubt you have all been thinking of one man since I began talking who is both D. O. and M. D.—Geo. Still. I want to tell you there is no better osteopath in the A. S. O. than George Still. He is not an M. D. in practice. He took medicine to get surgery; he was going to specialize in surgery and he has done so, and at that time to get surgery at all you had to go to a medical college.

I took my course in surgery only eight years ago. The course in surgery we had makes me smile a little bit now. Any man who could have gone out and practiced surgery with that course certainly would have his nerve with him; but we are changing those things to-day, and we are given a course in surgery in the A. S. O. that you will go to a good many medical colleges and get none better.

Then I would like to make a plea for serious-minded consideration of your work. As I said before, it is pleasing to know that the men here seem to be that class of fellows. In fact the Atlas Club is founded on some such idea, I believe, that we are for osteopathy, and better osteopathy, and I have no doubt that other clubs here in school have something of the same idea. I believe these clubs are a good thing for that reason. When you get out in practice I do not care how good a fellow you are socially, if a man calls you to his house because his little child is sick, he does not care whether you pass the time of day with him or not—he wants you to be serious—he would rather the lines on your

face ran up and down than cross-ways, while you are considering his own baby's case. When you are hired as a physician you are hired for your best skill and judgment and it is not doing right if you do not hand that out on every case. Make it a rule, an arbitrary and decided rule to do that on every case, no matter how simple the case may seem; because getting into the habit of doing things carelessly and lightly—nothing appearing to be seriously the matter, and therefore not giving it careful consideration is where you are going to make a slip-up sometime, and you will come down hard.

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VALUE OF STARTING RIGHT.

A. G. HILDBRETH, D. O.

Could the young men and women who go to the American School of Osteopathy, or any other of our colleges, but realize the absolute necessity of starting right, we would certainly have more genuine osteopaths in a few years, and less people who think that they want to take an M. D. degree. Anatomy, physiology, chemistry, histology, pathology, diagnosis, surgery, and all other kindred branches, as they are each in the course of instruction, cannot help but seem more or less dry and uninteresting. The work is so often done under a constant fear lest one shall fail to pass; too often the various studies are pursued with but one idea, that to make a passing grade in school, and to pass the State Board of some state where the student expects to locate when he graduates.

This is all wrong. Just the opposite—a desire to absorb and master all the essential, practical detail, should be the condition. If only some way could be devised whereby the new student could realize and comprehend the value, the very great value, of understanding and knowing all thoroughly for the sake of what it will mean to him in practice, it would make such a difference in the interest in his work, and such a vast difference in the value of his work done while in school as it relates to his professional life. If he could but know each time he studies a nerve, the value it will be to him not only to remember its name but the place it comes from, the avenue over which it travels, the organ it goes to, or the area or muscle it controls, as related to the various diseases with which he will come in contact in later years. Could some way be devised whereby the student could realize these things, then what a joy our student-life would be, what a pleasure in all the preliminary work. The dryness would vanish, the fear of examination would cease, because the student would so love the work as to not only take away all burden from it, but each day's task would become a relish calling for more, and a greater knowledge to be used in actual, practical experience

as demonstrated every day in the ability of our osteopaths to cure disease.

The florist in the cultivation of the living plant does his work with a real delight, because he knows with a little time and patience, faithful care and work, he will be rewarded by the production of a beautiful flower. The horticulturist in planting the small seeds from which emanates the tiny sprout, and in time with years of ceaseless toil and patience produces the tree which in season is laden with the most delicious fruit, is amply rewarded for his weary wait; in fact he loves his work, and while the body may at times become exhausted, yet his work is a continual feast because he knows what the reward will be in the end. He has eaten of the fruit before, and the taste has only created a greater ambition to produce something equally as good or even better.

The difference between him and the person who studies osteopathy is that he has been permitted to eat of the fruit which he is to produce, while the osteopathic student has been permitted only to taste of the fruit which is produced so profusely upon the present wonderful tree of osteopathic knowledge.

Words of mine are weak when attempting to express the all there is in osteopathy, or when I attempt to bring home to the heart of the student or new practitioner the all that is meant to them and the science we love so much in starting right. It has seemed to me for years that the average individual who has taken up this study has done so with but one thought, and that the amount of cash he could count upon as a return for his services. The school work has seemed so often to me to be only a process of drifting and cramming for examination, with an ambition to see how best the student could kill time until the weary (then two years) three years should slip by. Mark you, I do not say that all have so conducted themselves, but that at times such has seemed to be the case with a great many,—when the height of their ambition should have been to see who could learn most and best from the tasks assigned them.

While throughout all our lives we must care for the financial necessities of those dependent upon us, yet in a profession like ours, if our ambitions are upon the right pivotal center, the financial end of it will care for itself. First, a desire to help, in the best possible way, those who are unfortunate and afflicted is a God-given, inspiring ambition, and if lived up to cannot help but bring success in all ways. Again, the satisfaction of knowing that you can with your own hands, guided by an intelligent, well educated brain, straighten the crooked, relieve and cure the sick, brings with it an added strength which guarantees not only a useful but a successful life, and these things can only be obtain-

ed by those who realize the responsibilities, as well as the possibilities of those who aspire to be physicians.

A man or a woman has no right to enter the field of medicine who is not big enough to realize fully that the only ambition which should ever find room in his heart is the desire to see that the one who is suffering has the best done for him that can be done by human skill, whether administered by himself or by some one else.

Could all these facts be impressed into the lives of our great student body, could they but be brought close enough to all the blessings, the very great blessings, that are to be derived from a successful life spent in the practice of osteopathy—could they in their school work but know the wonderful power for good that lies within their grasp, could they but be brought to a full realization of the grand truths that are demonstrated daily by the great army of our good practitioners now in the field! Oh, if there only could be some way whereby they could come into a more intimate understanding—full, comprehensive and powerful, of all the great truths that abound in the underlying principles of this God-given science—then we would have more genuine osteopaths; then there would be fewer men and fewer women clamoring for an M. D. degree. Then we would start for the zenith of osteopathic growth and progress, because we would have behind us the right kind of a start, the right kind of a foundation for the great life work of those who have taken up the study of osteopathy.

After more than fifteen years of practical experience and constant contact with all kinds and phases of disease, to-day I know that we have only begun to drink from the inexhaustible fountain of truth from which osteopathy came, and I know too, that those who reach the top, or who make the best success, (and by success I mean producing the best results,) will be those who recognize the fact that they must start right, start at the bottom, get right down in close touch with the basic principles, as manifest in each living human structure; learn yourself, and in so doing recognize the fact that the base of knowledge that means most to you must deal with every nerve, every artery, every muscle, every bone and every function which regulates the normal action of the human body. Right here at the beginning is where every individual osteopath lays the foundation for his own professional career. It is here, and upon the character of the work done here, that the whole life and future of osteopathy depends; if the school work could be reached and handled in a way so that the learning of it all would only add zest to the work from a full realization of the actual value of all the knowledge obtained, the rounding out, the fullest, most fruitful maturity of our profession would be guaranteed.

706 Century Bldg., St. Louis.

THE BULLETIN

OF THE ATLAS AND AXIS CLUBS.

IRVIN FISH CRAIG, EDITOR.

M. A. BOYES, Business Manager

DR. CARRIE M. MUNDIE, Axis Editor

DR. NANNIE J. CHAPPELL, Axis Grand Chapter Editor

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KIRKSVILLE, MISSOURI, DECEMBER, 1909.



Christmas Greetings. A Merry Christmas to you all, doctors, and to you, too, fellow students, from THE BULLETIN representatives.

May your associations in the field be full of the Christmas spirit, doctors. May the Christmastide now so near be one of the happiest of your life. Perhaps you have a needy patient that you may be able to make a present of a receipted bill for services, which will enable him to spend a few dollars for the children, and carry happiness to their hearts as well as fill your own with it.

To those of the student body who return to their homes to spend the holidays, Christmas will be merry without a doubt. To leave Cunningham and Gray, Edgar, Ashton, Delafield & Pruddean and the rest of them behind for awhile will enable one to breathe more freely and to thoroughly enjoy the festivities of Christmas.

To those of us who stay behind—well, you all know Kirksville. The possibilities outside of learning are not great, so we shall probably have to take up a little "special work" to while away the time. Not that we will know any more when you return, brother and sister students, but we will miss you, and we must keep busy. We will have to be content to get the Christmas spirit from you when you return.

Errata.

On page 134 of the November Bulletin, in the paragraph dealing with intubation and tracheotomy in Diphtheria, an error crept in which was called to our attention by Dr. Laughlin. The first two sentences of this paragraph should read:

"The danger is from passing the tube the wrong way or passing a portion of the tube into the oesophagus, and very often very little good comes from the operation. The trouble is the membrane is pushed in front of and lies below the tube."

* * *

Social Session. The evening of November twentieth was given over to social enjoyment at the Club. A short program was rendered, the speaker of the evening being Dr. Becker, of the faculty. We promised Dr. Becker before he started to talk that we would not report him for THE BULLETIN, but he got to saying "good things" and we could not help it. You will find some excerpts on another page.

* * *

Keller vs. A. S. O. This was an action for \$10,000 damages brought by Kirksville attorneys on contingent fee against the A. S. O. the complaint stating that Keller came to his death as a result of treatment given him by a senior student of the school.

The case came to trial at Moberly a day or two before Thanksgiving, with several medical doctors lined up as expert witnesses for the plaintiff, while the school had ample representation in Drs. Geo. Laughlin and Geo. Still as experts, together with four local and three Moberly medicals who volunteered their services.

The plaintiff's testimony showed that the senior student on his way to school had been called in to see the man who was suffering from sciatic rheumatism; that the patient had been under medical treatment for a long period previously without improvement. Keller at the time was given the usual treatment of stretching the sciatic nerve, and was treated once subsequently; it was alleged by the plaintiff that so violently was the treatment given that the head of the bone was broken from the femur, and the man died in about six weeks of exhaustion.

On partial post-mortem, the hip joint was opened when it was found that the head of the femur and acetabulum were both eroded and broken down, so that the joint was loose, and that the neck of the femur was broken.

The patient was never at any time examined by a member of the A. S. O. faculty although Dr. Earl Laughlin called with the student after the second treatment had been given, but the patient's hip was swollen to such an extent that an examination could not be made and it was deferred.

The defendant asked the court for a instructed verdict, in its favor, on the ground that the plaintiff had failed to show any liability on the part of the school, which the judge granted, and the case was dismissed at plaintiff's cost.

The effect of this decision is far reaching. It is plain that had this case gone to the jury and a verdict been returned against the school, that not only this school, but every other osteopathic and medical school throughout the country doing clinic work would have been subject to numberless damage suits, and the precedent established would have led to the bankruptcy of most almost any institution in the land within a few years.

* * *

1910. Before another issue of THE BULLETIN is out the new year will have been ushered in with the usual ceremonies. Many resolutions will be made, most of them only to be broken before the new date has been written a dozen times.

At the A. S. O., this year, is perhaps of most moment to the next graduating class. In our Freshman year, when we bought our class pennants of blue and gold and hung them on the wall, the "1910" seemed far in the future. How we envied that green and white banner which carried "1908" on it. We would not be human if we did not now hope that the display of our class pennants would incite the same feelings in the hearts of the under classmen.

Brothers, let's make it a good year—one of the most important of our lives at its close. Not perhaps in the good we may have been able to do, nor for the dollars we have been able to accumulate, but let us be true to ourselves and the best that is within us. If we conscientiously do our best, do not cheat ourselves, and can look the world squarely in the face in the strength of having done the best of which we are capable with the light we have, nothing can keep us from feeling that we are at least men.

May we "win the distinction of being good citizens, the greater distinction of being good physicians, and the greatest distinction of being good men and women."

Kind Words. Dr. Irving Colby, of Westerly, R. I., ('03), writes in regard to THE BULLETIN: "The November '09 Bulletin to hand, and I heartily endorse all therein contained in its favor. It is all good, and Dr. Laughlin's articles in particular, for they show the variety of information that is being given out these days at the old A. S. O. It furnishes excellent review of the things we were told as well as many new points and rings true as from one who has tried it rather than an enthusiastic theory which later must be proven alone in the tall timber. If the boys absorb it they need not worry about the office rent in years to come."

Dr. F. B. Fleming, Montrose, Colo., of the famous "Skiddoo" class, (Feb., '09), says, "I want to congratulate you on the splendid showing made by THE BULLETIN. The articles by Dr. Laughlin are worth more than the price of a year's subscription."

Dr. H. Agnes Dandy, (Axis, '04), of Princeton, Mo., says: "I want to express my appreciation of the paper on Diphtheria by Dr. G. M. Laughlin. This is the best thing on the subject I have ever seen."

Dr. D. F. Miller, Lawrenceville, Ill.: "I am well pleased with THE BULLETIN."

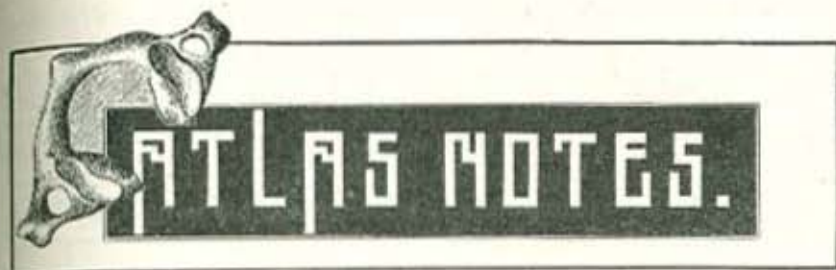
From Dr. Charles A. Arand, ('07), Sandusky, Ohio: "What has especially interested me in THE BULLETIN have been the clear and helpful articles by Dr. Laughlin. They are osteopathic classics, and I feel that I cannot get too much of them and hope you will see fit to have one each issue."

From Dr. G. E. Thompson, ('06), Elmwood, Ill.: "I want to compliment you on THE BULLETIN. It is fine, and I am always glad to receive it. Give us some more of Dr. Laughlin's lectures."

Dr. Geo. A. Haswell, Westfield, Mass., writes: "THE BULLETIN is certainly keeping up its standard of excellence. It seems like getting a letter from home when it arrives."

Dr. A. S. Bean, of Brooklyn, N. Y.: "I believe THE BULLETIN is in good hands, and welcome its arrival."

Dr. S. H. Bright, Norfolk, Va.: "In closing I want to express my keen appreciation of your efforts in getting out this excellent journal of the Club."



We regret to learn this month of the death of Dr. J. C. Groenewoud's mother, which occurred at Kankakee, Ill., Nov. 18th, '09, at the age of 70. THE BULLETIN extends sympathy.

Life Membership Certificates. Since the last issue of THE BULLETIN a number more of our field members have been issued Certificates of Life Membership. They are as follows: Dr. A. S. Bean, Brooklyn, N. Y.; Dr. E. C. Crow, Elkhart, Ind.; Dr. Paul M. Peck, San Antonio, Texas; Dr. Orren E. Smith, Indianapolis, Ind.; Dr. David Mills, Alpena, Mich.; Dr. C. G. Seaberg, Marinette, Wis.; Dr. Wade H. Marshall, Pittsburg, Pa. (now taking post-graduate work at Kirksville); Dr. L. M. Goodrich of Hackensack, N. J.; Dr. K. L. Vyverberg of Lafayette, Ind.; Dr. F. E. Moore, Joseph, Oregon, and Dr. A. M. Oswald, Auburn, Ind.

This makes a total of twenty-three to date, and applications are being received each week. The certificates are in handsome diploma form and are described and illustrated in the September number of THE BULLETIN. Look at it again, doctor, and see if you do not want one for your office, as well as to place you in proper relations with the Club for the future.

Waller. A former editor of THE BULLETIN has been heard from, Dr. Granville B. Waller. His infection with the diplococcus matrimonii as told in the September Bulletin was quite severe and the doctor has been quite ill, but is now engaged in practice at Louisville, Ky., at least here is what he says in a recent letter to the Club:

"Some of you may be interested to know that Dr. Coke and myself have associated offices, about as nice, we think, as there are in town. He had a practice here before, and is beginning all over again, and doing well. I have one patient, and think I am making \$25 a month, but don't know yet—he may not pay. I do know though, that I have saved

him from going to the highest priced surgeon in town for a wrenched knee.

Oh, yes! Yesterday, a man in a barber shop looked at me curiously three times, and asked what my business was. I said I was an osteopath, and added, "You don't know what that is do you?" "Oh, I guess I do," said he, "Corn doctor, aint it?" See what you fellows are coming to. In Wisconsin you have the chiropractors to fight, and here we have the chiropodists.

Tell brother Craig he is getting together an excellent Bulletin. He has my sympathy for his hard work, and congratulations for its very good results."

Colby. THE BULLETIN is in receipt of a letter from Dr. Irving Colby, whose name appeared under Locations and Removals last month, in which he says: "I notice a new directory is to appear soon, and as I appear under the head of Removals this month as from Westerly, R. I., to New London, Conn., I would like to correct it in the next issue, as well as in the Directory. I am in New London four days per week and live here, and go to Westerly, R. I., three days per week, where I have had an office for six years or so."

Smith. We are presenting to our readers this month a paper by one of the old Atlas men, Dr. Orren E. Smith, '03.

Dr. Smith as president delivered this at the last annual meeting of the Indiana State Osteopathic Association.

Willard. Dr. Asa Willard, (Atlas, '00) of Missoula, Mont., is adding considerably to his reputation as an osteopath through the medium of his address on osteopathy delivered at the meeting of the Montana Osteopathic Association at Bozeman, Mont., Sept. 14, '09.

The Convention inaugurated the feature of having the public invited to the exercises of the last evening of the meeting, at which time Dr. Willard delivered his address, which was so admirably suited to the layman that it is being used extensively as "field literature" not only by individual practitioners as circulars, but has been reproduced in the Osteopathic Journal and Herald of Osteopathy.

Its an able article on the science, and if you have a friend to whom you want osteopathy explained, furnish him a copy of Dr. Willard's paper.



At the regular business meeting held Nov. 27th, six candidates were initiated into the Club.

Frank Elwood Avery of Syracuse, N. Y., a relative of Dr. W. C. Chittenden of Newark, N. Y., was formerly a tool-maker in a machine shop. Through the influence of his wife's brother, who is a practicing osteopath, he decided to take up the science. After the first two years in an eastern college he decided to finish his osteopathic education in Kirksville. He entered the A. S. O. in September last, and will be graduated in June, 1910.

William P. Hull was formerly an erecting engineer of the Kaw Gas Co. of Pittsburg, Pa. He comes from Iola, Kans. The results of osteopathic treatments in his family won him to the science and he entered the A. S. O. 1912 class.

Clyde A. Clark, of Windsor, Conn., was formerly a Cost Clerk and Paymaster.

During 1907 he suffered an attack of sciatic rheumatism. Medical treatment affording no relief, a friend advised him finally to try osteopathy. He accordingly placed himself under the treatment of Dr. L. C. Kingsbury, (Atlas '01), of Hartford, Conn., receiving great benefit.

It was during his visits to Dr. Kingsbury's office that he became interested in osteopathy to such an extent that he decided to make it his profession, and accordingly entered the A. S. O. last fall.

Will W. Grow, of Danville, Ind., was formerly a Funeral Director Embalmer. Through the influence of an osteopathic physician friend, Mr. Grow decided to take up the study at Kirksville, where he entered the 1911 class. He is a brother of Walter Grow, of the 1910 class, who is also an Atlas man.

Spangles A. Brugh was formerly in the grain business in Filley, Mich. He was taken with a severe attack of appendicitis and on consultation seven medical doctors advised an operation. He was opposed to this and concluded to try osteopathy as a last resort. He was successfully treated, and after three months had none of the symptoms whatever.

This interested him to such extent that he decided to study the science, so entered the September freshman class.

Otto H. Gripe was formerly a traveling salesman, with home at Goshen, Ind.

Through an accident he sustained severe injury, which developed complete paralysis from his hips down.

Osteopathic treatment brought him out of this condition, from which he reasoned that it was a worthy profession, hence he entered the A. S. O. in September.

AS AN OSTEOPATH YOU SHOULD KNOW

That at the base of the anterior horns of gray matter are groups of cells to which we used give no particular function; they control vasomotion and glandular secretions, and the number of these cells is increased in areas from which special viscera are innervated.

The relation of the efferent and afferent nerve roots to the vertebral foramina and the great variations in the lower part of the back.

That the blood supply to the cord low down comes from several inches below the point where it is used.

That no disease is especially a disease of any one particular segment of the cord, and that no one segment controls any one organ.

That if injury takes place at the eleventh dorsal for instance and brings about kidney trouble, it may affect the patient's liver also.

That a lesion at any segment is merely suggestive of trouble of some particular organ.

That any organ severely diseased for a length of time sufficient to make it chronic must have produced poisons in the blood which in turn affect other viscera.

That these other viscera are affected in proportion as they themselves are weakened by mal-influences such as spinal lesions.

That a person can have enough of other influences to cause disease without having any bony lesions.



PROPHYLAXIS.

MARY E. NOYES, D. O.

It seems to me there are some phases of the prevention of diseases, that if not overlooked, do not receive near the consideration they are entitled to. Do you realize to what pernicious proportions the habit of talking of our ills has grown? If there is anything in the influence of mind over matter (and we all believe there is,) does not the continual comparing and describing of ills over and over leave a harmful effect on mind and body? Why not forget the sick headache or the disordered stomach of last week, and not go over it again to every friend or chance caller? If you do not think this is done, just listen to the conversation of most any company of women for an hour, and if you do not hear it you are in great luck.

And how many of you have had the experience of going to a patient finding her clear in the depth, and on inquiry find that some kind friends have called, and each and every one of them had had a friend sick just as your patient is, one of them had died, another gone insane and another was an invalid for life?

This is no fairy sketch. I have had it happen, and more than once. If we could get the people talking health for a few generations I think we would not need half so many doctors.

The people are not alone to blame for this kind of talk. The medical profession must take the blame for a large share of it. One of my patients whose mother had died of cancer said that a doctor told her and her two sisters that if any of them ever had a child they too would die of the same trouble! They are all married now and live in constant fear. Do you think the doctor ever lived who could make a statement like that and know what he was talking about? Statements of what doctors have said of the future of diseases are too numerous to mention but this one was too glaring to let it pass.

Another cause. Why is it that so much care is taken to improve the offspring of animals and so little of the human? Is science helpless here

and must she ever sit with folded hands? Do we encourage the bringing fourth of young by the sick weakly ones in animals? Yet how many doctors have said when they did not know what more to do for some sick, weakly girl, "Oh! let her marry and have a child, and may be she will be better."

She may, and she may not be, but what of the child? Has any one a right to bring a child into this world that they cannot give a reasonable chance for health? Some one has said "Every child has a right to be well born." Are they under these circumstances, or when the little life is fought against for the first few months of intra-uterine life? Can you expect a happy, healthy, sweet child? Newton says that is the way murderers are made.

You need not tell me that if girls were taught the real mysteries and beauties of motherhood they would not willingly and gladly take the responsibility when the right time came. I do not think it is so very strange that some women of the present day shirk it when you stop to think for how many generations we have been filled full of the false modesty, awful mystery and deceit that has existed on the subject to sex. Ignorance is not innocence.

Why is it that in the things which are the most sacred, that should bring us nearest to the Divine, to the source of all life, we are lied to about when we are young, and left to learn more as we may without a hand to guide or love to show the way? Where then, is the sacredness? Is it any wonder that children acquire habits that leave a mark on both souls and bodies for all after life? When shall we learn that to the pure all things are pure, and raise up parents and teachers who shall teach the growing children sex in its purity and beauty, and put a stop to the awful harvest of disease and crime that is reaped from this one cause each year?

A child is very young when it cannot be trusted with a secret that can only be talked of to mamma or papa. I knew one father that took his little son the first time he asked him of the mysteries of new life, and beginning with the flowers and birds told him all that the little mind could grasp—told the little lad that all he told him was the truth, and that when he was a larger boy and could understand more, he would tell him more. The little fellow's eyes grew big and he said "papa, how beautiful." Do you think a dirty joke could have the same effect on that boy after that? I do not.

Why are we taught that feminine refinement means the crushing out of all sex instinct, 'til many a woman now boasts she never had any and seems to think it an evidence of great superiority. Is it? Is it

symmetrical, beautiful womanhood? Can such an one develop true beautiful motherhood? I do not think so, nor are they as well fitted for any work or walk in life? There are other things to be created and developed besides new human beings, and if we glory in partial development, are we likely to develop anything that is worth while? There is no creature on earth that can compare with a perfectly developed man or woman who is under perfect self-control and if the development is perfectly rounded out there will be that self control.

Editor Bock in *The Ladies' Home Journal* of a few months ago, in an article on social purity asked the question "Why is it that so many healthy young women have to go to the operating table the first few years of married life?" His answer is "it is due to diseases contracted from husbands."

Is he correct? I do not think so. In a great many cases it is directly due to the means employed and advised by doctors to prevent conception and produce abortion. I will concede that there are safe and right ways to limit the number of conceptions, but I have had atrocious practices related to me, said to have come from the profession. I am equally strong in maintaining that there is no right time nor safe way to produce abortions simply to free the woman of the burden. But in my short experience I have had several come to me for help in that way, and in spite of all I could say have gotten some one else to do it. Some of them are taking the consequences.

Why do we quarantine chickenpox and measles and let syphilis and gonorrhoea run wild? Which do you think is doing the more harm? We osteopaths say we are carrying on an educational campaign against disease and for a better way of living. Are we doing all we might or ought along these lines?

Ottawa, Ill.

* * *

EXPERIENCES OF A SUMMER'S VACATION.

It's the first patient that quickens your heart beat.

You felt quite competent to cope with all abnormal conditions and lesions a few weeks ago, just after you had passed your final junior exams. You had mastered a system of manipulations and had finished Osler. Really, down in your secret heart, you felt the third year would be a waste of time.

You had been offered an old physician's practice for a couple of months and, of course, you took it.

But here comes the first patient! Horrors! suppose, after all, you should fail?

However, this patient, a child of twelve years, received one treatment a week for her mother doing the office laundry. As you knew her mother charged three times too much for the laundry, your conscience was put at rest.

The next was a call to a private house. You almost felt like a book agent when you rang the door bell, but managed to assume a very professional air when the portal was opened by an anxious-looking mother.

You found a lad of eleven with a very flushed face and temperature of 104 degrees. He told you he had "a bustin' headache and a sore throat."

Upon examination you found the tonsils quite large, hard and congested. You took an extra look to ascertain that there were no white patches on them, before you informed the mother he had tonsillitis. Then you proceeded to treat him.

"How long will he be sick?" asked the mother. How long will he be sick? Gracious! How long does it take for tonsillitis to run its course—Oh, your kingdom, then, for a peep into Osler.

"He was in bed over a week when he had it before," continued the mother, before you had time to commit yourself.

"Well, he will not be ill so long this time," you answered her reassuringly.

Before you had quite finished treating the patient he became moistened with perspiration. You took his temperature again. It registered less than 103 degrees. This seemed incredulous to you, so you replaced the thermometer. The mercury was still lower.

You left after ordering the boy to remain in bed, to have liquid diet and plenty of water.

Next day, on your return, you found the patient's temperature normal and he was loudly clamoring for a change of diet.

The improvement seemed almost impossible to you, and to be sure of making no mistake, you ordered him to remain in bed another day and to eat nothing heavier than toast.

On arriving at your office door next morning, your patient greeted you with a book under his arm.

"Say, Doc," he broke in before you had quite reached the landing, "can't I go to school?"

You took him in the office and examined him. He appeared normal in every way.

"Well, how do you feel?" you asked him.

"Oh, I feel all right, ceptin' I'm hungry. Mama wouldn't let me have more'n four pieces of toast for breakfast."

This, and similar astonishing results more than renewed your confidence in the A. T. Still method of healing, and your own ability. You made wild promises to your patients, and, strangely enough, most of them materialized.

One day you were called to see a quite elderly lady. Eight weeks previously she had tripped over a foot stool and, falling to the floor with a pain in her hip, had been unable to arise.

The case had gone through the hands of two different medical men. These gentlemen, so the family told you, differed widely in their diagnosis.

One said it was a case of cerebral hemorrhage and the other said the trouble was due to a nerve.

Upon examination you found great tenderness over the right hip, the leg was shortened by two inches and the toe was inverted.

"Dislocation," you told yourself at once, and proceeded to find the head of the femur to make sure. One can locate most anything after one has made his diagnosis, so you proceeded at once to impart the information to the family.

"And can you cure her, Doctor?" they anxiously, asked.

"Sure, and in a short time," you told them, and you thought you could. At least you had been shown how to reduce such a dislocation and saw no reason for failure.

But after the lapse of weeks and after a number of attempts, no progress had been made in the way of a reduction.

A neuralgia which had bothered the patient for a number of years and a persistent constipation had been overcome, and the patient had been greatly benefitted in many ways. In fact, she confidently told a visitor she believed the trouble in her hip had drawn the disease from the rest of her body, she felt so good.

It was not until you returned to school did you learn that hip dislocation does not occur in the very old, but what appears to be dislocation, is a fractured femur, and, all that is to be done in such cases, is to get the patient up on crutches. Fortunately that is what you did.

You were often surprised at the prevailing knowledge of osteopathy.

One day you met a little old Irish woman who had known you in your babyhood days.

"And phere have your people all moved to?" she asked.

"We moved to Kirksville, Mo.," you answered her. "We have all become osteopaths."

"Is that so," she answered and she looked at you in reproachful amazement. "Sure child, and phwat made ye all go back on the religion of yer forefathers, like that."

CASE REPORTS.

Male, thirty-six years old. Condition Tic Douloureux. Foreman in cotton-mill. Worked very hard. When he came to me had been to three or four M. D's. and had had electrical treatment. Had been to a dentist and had all of his teeth, both upper and lower on one side, extracted without relief. For ten days had not been able to sleep day nor night. Pain over the superior and inferior dental sharp and severe. Pain came in spasms and patient's face more an expression of agony. Speaking and chewing would bring on a spasm. Cold would also effect him. Muscles of neck very rigid; deep muscles contracted. After the second treatment pain was transferred to face in front and just behind the ear. After third or fourth treatment patient could sleep every night except one when he overworked. After three weeks of treatment no return of pain after suffering for eight months. Treated cervical and upper dorsal, but most of work was confined to upper four cervical. Also stretched the muscles of tempero-maxillary articulation.

Female, age forty, whom I am now treating for the same condition. She has had much relief but condition does not yield so quickly as did the first. Attacks come just after menstrual period. Pain in this case all side of nose, cheeks and eye. Both cases were right sided.

Portland, Me.

DR. MARY WARREN DAY.

* * *

Female, age forty-three. Mother of three children. Previous health fair. For weeks before her illness she had overworked and suffered more than usual during her menstruation. About the time it ceased she became extremely weak and nervous with almost constant, "Lead cap" headache and darting pains in all of the skeletal muscles. An M. D. was called pronounced condition general neuralgia and administered morphine. Patient continued to get worse and another M. D. was sent for, who made the same diagnosis and administered more morphine. About the tenth day from the onset I was sent for. The musculature of the spine I found was too tender to give more than a gentle massage. I corrected an innominate lesion and upon local examination found as I had suspected a prolapsed and retroverted uterus which I corrected. In less than an hour her headache ceased and also the neuralgia pains. Her improvement continued and she is now an enthusiastic advocate of osteopathy.

Fulton, Ky.

DR. NORA B. PHERIGO.

AXIS NOTES.

Dr. Mary W. Day in a letter to the Financial Secretary, Miss Wilson sends greetings to the Club. She writes that she has moved into new quarters in a fine building called the "New Baxter" 655 Congress Street Portland, Maine, where she would be pleased to welcome any Axis girl who may venture "Way Down East." She sends in two case reports which will be found elsewhere and says the Bulletin is fine this year.

* * *

In an excellent letter from Dr. Nora B. Pherigo, Fulton, Kentucky, read before the Club, she expressed great satisfaction in being able to obtain a license in that state. She had to take the same examination as the four year medics and was the only woman to take the examination. They were examined in eighteen subjects.

When Dr. Pherigo wrote she had been in practice less than five months and had had interesting experiences with patients. She passed through that period of "waiting" for patients and writes that when they finally came they were either the non-curable or the non-payable type. The correct diagnosis of one case brought her the interesting experiences to which we previously referred. It was the case of a patient who came to her for examination. Her M. D. had pronounced the case hopeless. Dr. Pherigo disagreed with his diagnosis and sent her to a leading surgeon in Memphis who agreed with her diagnosis in almost every detail. He operated upon her successfully and she is now under treatment and they expect a complete recovery.

* * *

The Axis Editor was pleased to receive an interesting and very welcome letter the past week from Dr. Laura Belle Givens from Greeley, Colorado, where she has located and is practicing. She has taken the practice of Dr. A. N. Hamilton. She is doing nicely and likes Greeley. It is a town of ten thousand inhabitants. The climate is delightful and scenery beautiful. The streets are paved and well lighted with electricity which is greatly appreciated by one who has lived in Kirksville. She writes, "I have had a variety of patients and some very interesting cases." Pelvic troubles in women are frequent conditions that she meets with and urges that the Axis sisters acquaint themselves thoroughly with troubles along this line while in school as much of their work when they get out will be this kind. She sends greetings to the Club and is anxious to have her Bulletin forwarded to her new address.

The Corresponding Secretary, Mrs. Haven, read an interesting letter from Dr. Elva James Lyan in a recent meeting. She is located in Madison, Wisconsin, at "The Wayne." She writes "How many times I've wished that I could meet at the old club rooms again, for I can assure you that being there in school surrounded by those who think and talk osteopathy is much pleasanter than being out in actual practice where one only occasionally meets a real osteopath. But of course there are many compensations in practice—the greatest being the results which are sure to come." We are not surprised to learn that she has seen results already from her short experience in the field—and writes encouragingly.

* * *

The Axis Editor wishes to acknowledge through the columns of the Bulletin the receipt of many helpful letters from Axis field members particularly classmates and schoolmates. The letters are full of good cheer, interesting Bulletin items and several have borne case reports. Let the good work go on and may we hear from more of you in the field. Many of the letters contain so much that is helpful that they have been read before the Club could you have heard the cheers that greet the reading of these letters it would do your hearts good. Let us hear from more of you.

* * *

A bright newsy letter was received by the Editor from Dr. Nellie L. Marcy, 78 Broad St., Newark, N. Jersey. She says: "I drop every thing to read the Bulletin when it comes." She also speaks of being pleased at having Dr. Link located within five miles of her.

* * *

Dr. Lorena Kagay, 405 West Center St., Marion, Ohio, in a pleasing letter writes: "I take this opportunity to congratulate the management of the Bulletin on the splendid results of their effort to make each number the "best ever." It is full of interest from cover to cover—a budget of news and valuable information from "Home." I hope the lectures of Dr. Geo. Laughlin may be continued." Dr. Kagay's letter was read before the Club and was greeted with cheers.

* * *

The Financial Secretary, Miss Grace Wilson, received a short letter from Dr. Olive C. Waller from Eugene, Ore., containing greetings to the Club. She writes favorably of the work she and Dr. Allie Smith, her partner, are doing in Eugene. She says: "I read the Bulletin like a letter from home and always so glad to hear from the Club.

Dr. Emma Rector, Benton Harbor, Michigan, sends greetings and best wishes to the Club.

* * *

Dr. Jessie L. Catlow sends greetings to the Club from Boone, Iowa.

* * *

The best friends of THE BULLETIN are not those who alone have pleasing things to say of it, but those who have friendly criticism. Dr. Laura B. Dinsmoor writes from Pittsburg, Penn.: "The Bulletin is always a welcome visitor, but I would like to see on its pages more contributions from field members." It is up to you brother and sister-field members—to send in these contributions which will make THE BULLETIN a more valuable periodical. We hope these contributions will be headed by one from Dr. Dinsmoor herself. She further sends in her helpful letter best wishes for the success of the individual members of the Club who are preparing themselves for the noblest work a woman can do. She says that every year the demand is increasing for earnest efficient osteopaths—I would like to add—healthy women D. O's. "Learn how to do your work in the easiest possible manner for it is hard work at best and if you are to be a successful operator you will have many demands which only a good strong woman can meet."

(The above makes a very good beginning for the Dr.)—Axis Editor.

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Dr. Mary LaFonda Gable sends greetings from Downer's Grove, Illinois, and says THE BULLETIN is always welcome.

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Dr. Edna M. Apthorpe sends greetings to all Axis sisters from Onconeta, N. Y.

* * *

Almost every communication sent in from field members contains some favorable comment on THE BULLETIN. No one wants to miss getting a single issue. Dr. Lenna K. Prater writes from Springville N. Y.: "The October and November Bulletins are splendid."

* * *

On Wednesday, December first, the Axis Club had an open meeting to which each member was given an opportunity to invite a friend. There was quite a list of those who came to the invitations and the many present seemed to greatly enjoy the short program and the very informal dance following.

Dr. Frances Hamblet Thoms in a recent letter writes: "I have just finished reading the October Bulletin and in the language of ex-President Roosevelt am "delighted."

A combined letter from Drs. Frank and Eva Mains Carlow from Medford, Ore., to the Editor was so interesting that it suggested the giving of a portion of it to the Bulletin: Both the Doctors had a very gratifying acute practice during the month of September. Each had typhoid patients. Dr. Frank speaks of one case in particular—a well digger—whose fever he had broken in fifteen days. He remained in a tent throughout his sickness. He made a quick recovery which was especially pleasing to the Doctor for there were several other cases in the neighborhood all attended by M. D's.

In speaking of Medford he says: "I think the business men here have the biggest "booster spirit" of any place I was ever in." We are glad to hear such good reports from Medford and from the Doctors there.

Dr. Grace Shupe writes from Monongahela, Penn., to one of the Junior Axis sisters that she has opened an office in the 1st National Bank Bldg. there. The spirit of her letter has every indication that she is happy and doing well.

The Axis Club will from this time on work under practically a new Constitution. Our old Charter has been quite completely amended and acted upon by the court and been returned to us. We hope to very soon have our constitution and by-laws in booklet form for use in the Club.



AXIS GRAND CHAPTER.

President, Dr. Bertha Buddecke, Suite 816 Carleton Bldg., St. Louis, Mo.
First Vice-President, Dr. May Vandenburg, 2069 Sutter St., San Francisco, Calif.
Second Vice-President, Dr. Margaret B. Carleton, Post Office Bldg., Keene, N. H.
Secretary-Treasurer-Editor, Dr. Nannie J. Chappell, Suite 510 Mo. Trust Bldg., St. Louis, Mo.

Chaplain, Dr. Elizabeth M. Culbertson, Appleton, Wisconsin.

Janus, Dr. Julia M. Sarratt, Waco, Texas.

Escort, Dr. Almeda J. Goodspeed, 126 State St., Chicago, Ill.

Trustees: Dr. Sarah Russell, Five years, Term expires 1914; Dr. Ethel L. Burner, Four years, Term expires 1913; Dr. Almeda J. Goodspeed, Three years, Term expires 1912; Dr. Nellie F. Whitcomb, Two years, Term expires 1911; Dr. Minnie Schaub, One year, Term expires 1910.

The officers and trustees constitute the Executive Committee.

INVESTIGATING COMMITTEE:—Dr. Nettie H. Rolles, 1457 Ogden St., Denver, Colo.; Dr. Jessie L. Catlow, 623 Story St., Boone, Ia.; Dr. Effie Rogers, 12 Hemenway St., Boston, Mass.

PROGRAM AND COURTESY:—Dr. Ella D. Still, 1716 9th St., Des Moines, Ia.; Dr. Susan Balfe, 505 Mason Bldg., Los Angeles, Calif.; Dr. Elta C. Wakefield, 714 Union Savings Bk. Bldg., Oakland, Calif.

FINANCE AND AUDITING:—Dr. Chloe Riley, 43 W. 32d St., New York, N. Y.; Dr. May Marts, 147 Forsythe Bldg., Fresno, Calif.; Dr. Fannie B. Laybourne, 210-11 First Ave., Denver, Colo.

CONSTITUTION AND BY-LAWS:—Dr. Pauline R. Mantle, 404 Pierik Bldg., Springfield, Ill.; Dr. Carrie P. Parenteau, 6540 Yale Ave., Chicago, Ill.; Dr. Ethel L. Hearst, 122 N. Santa Fe Ave., Salina, Kans.

The Chairman of each committee being the first named.

Some of the Grand Chapter members have no doubt, changed their address, but your Editor has no knowledge of it. Many have had interesting cases—one can not be an osteopath and not have them right often—but your Editor has not received any reports. All of you undoubtedly know something that would be interesting to your sister members and incidentally make the Grand Chapter Field Notes readable, but your editor has received but one item to go under that "head," consequently the "head" is omitted this month. A large per cent of the members are capable of writing good, strong scientific articles, articles that would be a credit to any publication, but notwithstanding many general invitations or pleadings and several individual requests, your editor can not give you one single scientific or otherwise article. Take the department as a whole, it is a decided failure this month, the field members make a poor showing—unless of course they have sent their material in to another

department. I am sorry, very sorry as I have had great ambitions for the building up of the Grand Chapter and have spent all of my spare time, and much time that I should not spare, to that end. I entered into the thrible-barreled office with enthusiasm—had day dreams and built numerous air castles, the Grand Chapter gained in membership, it grew stronger and stronger, was a power in the profession—every member paid the dues promptly and every member did their part by the official Journal—but instead it is almost the reverse, each issue has been harder to get out than the preceding one until now I am sending you the present number with a department that is not worth the name—absolutely nothing in it but complaints and fault finding and please do not think I am deriving very much enjoyment from the condition of things—I greatly prefer crowing to crying, but, oh well what is the use worrying any more about it 1910 is almost here and it may bring me all kinds of good things for my department—I truly hope so.

* * *

"It is the little things that are neglected" say many of the members when sending in their Grand Chapter dues. This being the case it might possibly be wise to increase the same.

Six—listen,—only six members paid their dues the past month, making forty-three in all who have paid up. It will not take a great big knowledge of mathematics to figure out the exact state of the treasury. A printing bill of eight dollars and fifty cents, for letter heads and envelopes, will be paid immediately, leaving a tiny balance which will hardly meet the unnecessary expense of printing and mailing some two hundred individual statements—these statements must be made out and sent during the early part of January and each one will take a two cent stamp. Now once more, will you not, each one of you, help to reduce the expense in sending out these statements—and the work and time in getting them out, really I have more work now than time to do it in and every twenty-five cents sent in before January 15th will lighten my work and reduce the expense to the Chapter at one and the same time.

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Here is wishing you, sister members, a right Merry Christmas and may the new year bring you prosperity and success even beyond your dreams—joy be with you always and care be unknown.

* * *

Dr. May Vanderturg, of San Francisco, Calif., is over in the Hawaiian Islands, having gone there with a patient. She may return home in January but possibly will remain until April; any way she will be at home in time for the Convention and to each and every Axis girl will extend a hearty "welcome to our city."

One Tell Berggen, M. D., has quite an article in the December "Good Health" on chest expansion, gymnastics—medical of course—with ten decidedly osteopathic illustrations. Each illustration is graphically described and the patient thoroughly instructed in the movements.

* * *

The three "R's" of the worker should be regularity, rest and recreation. Spasmodic habits, never letting up and not knowing how and when to play have killed more business women than all their hard work.

* * *

Laxative Biscuit Recipe.

Two cups bran,
One cup white flour,
One-half cup New Orleans molasses,
One and one-fourth cups sweet milk,
One teaspoonful salt and same of soda stirred in the molasses,
One egg.

* * *

DIED.

Mrs. U. G. Carpenter of Monte Vista, Colo., formerly Dr. Ida M. Fox of Springfield, Ill., died from the results of an operation performed at a hospital in Newark, N. J., Oct. 21st.

The funeral was held at Monte Vista, Colo., where Mr. and Mrs. Carpenter had resided since their marriage last July two years ago.

Mrs. Carpenter and her husband had been attending the Hudson-Fulton celebration when she was stricken.

Her husband, her parents, Mr. and Mrs. Geo. W. Fox, of Jacksonville, Ill., and two sisters, Mrs. Dr. A. S. Loring, of Denver, Colo., and Mrs. Dr. M. E. Clark, of Indianapolis, have the sympathy of her Axis sisters in their sad bereavement.

A FEW ITEMS YOU MAY FIND INTERESTING.

Recreation.

Recreation does not necessarily mean idleness, but it may mean hard labor. If you are wise you will so arrange your labors that each succeeding one will be so totally different from the last that it will serve as a recreation for it. Physical exertion should follow mental and then give place to it again.

Stimulants.

It is found by actual experiment that the administration of alcohol lowers the temperature of the body. A temperate, well nourished person will live, with comparative comfort, in an atmosphere which would freeze the life out of a drunkard in a short time. Drink hot coffee or milk instead of any form of spirits, if you expect to endure exposure to cold.

Our Weight.

There are few things so changeable as the weight of the body; indeed it is rarely the same for a few minutes together; if one were to sit on one of the plates for a whole day, the other plate would be constantly oscillating within certain limits. The state of the weather and time of the year influence our weight. In summer we grow fleshier than we are in winter; such is the general rule; yet most people believe that hot weather makes us lose flesh. True we eat less and perspire more, certainly two causes of loss, but on the other hand, we expend less to keep up the temperature of the body, and moreover, we drink more and our beverages possess the curious property of increasing our flesh. Pure water is a great fattening agent. Cattle reared for slaughter get a great deal to drink, which increases their bulk considerably—the tissues are gorged with liquid, and so the weight increases, but the system is weakened. In winter, the organism has to be provided with heat, we eat more, but also expend more to keep up the temperature of the body; we drink less, so that on the whole, the loss is greater than the gain and we lose flesh. We gain flesh when, under ordinary circumstances, we burn more of the food we have taken and we, therefore, in breathing, exhale carbonic acid in proportions. We begin to emit less of the latter in April, its amount diminishes considerably in July, August and September and attains its minimum about the autumnal equinox. It then goes on increasing from October, and we begin to lose the substance gained during the summer. From December to March we remain stationary. To conclude, as we consume less in summer than in winter,—

all other circumstances remaining the same, we are heavier in hot weather than we are in winter.

Clothing the Body.

One important object to be secured by clothing is uniformity of temperature. The average temperature of persons in health is 99 degrees F., and this is maintained by the condition of the blood, unless some counteracting influence prevents. Uniformity of temperature is of the utmost consequence. Clothing may disturb this uniformity in various ways. Comparison obstructs the flow of blood, which results in an immediate lowering of the temperature. In this way the feet and hands are made cold by tight shoes and gloves. Too many thicknesses of clothing at particular points result in the accumulation of heat, and consequent congestion. A lack of clothing results in the escape of heat, and the forcing inwardly the surface blood, tending to produce congestion of the internal organs. Thus one part may be over-heated by a super-abundance of clothing, while another part is suffering from cold. Often children are loaded with clothing about the chest and neck while the legs and lower part of the trunk are barely covered. In some parts of the body the blood vessels are larger and more numerous than in other parts; for instance, the throat, lungs, liver and kidneys. Therefore, these organs are liable to become overheated by clothing, and especially if other parts of the body are imperfectly protected. The region of the kidneys is often over-dressed by the lapping, at this point, of the garments which clothe the trunk and lower extremities. Two or three extra thicknesses are thus obtained and the tendency is to accumulate an excess of blood in these delicate organs. The muffling of the throat is the cause of more sore throats, coughs and croups than all other causes combined, especially when supplemental by thinly clad extremities. It is well to wear flannel next the skin, this prevents sudden chilling of the surface, which is very important in our variable climate. Where flannel irritates the skin, cotton flannel or silk may be substituted. Linen should never be used.

The Important Functions of the Skin.

Looking at the complicated mechanism of our bodies from a popular standpoint, we should say, perhaps, that the brain is the most important part of us; but that would be a mistake. Not only the brain but the stomach and kidneys are less necessary to life than our skin. Reflect for a moment, you can go without food for several days and not suffer serious injury; your liver may cease to act for a week, and you can attend

to your business as usual; the brain may be paralyzed for months, and life goes on; but if the functions of the skin are suspended for two hours, death follows. Take a dog or cat and dip the animal into melted paraffine or tallow, so that the skin excretion or secretions are suspended, and the animal will die almost as quickly as if ten grains of strychnine had been administered. The skin is a most important auxiliary to the lungs in the process of aeration of the blood, and so intimate the connection or so similar and important are its functions, that when death ensues from skin obstruction, all the conditions resemble those occasioned by cutting off air from the lungs. More deaths from consumption are caused primarily by skin obstructions than from any original weakness or disease in the lungs. The lungs are the first of the important organs to be influenced by derangements of the skin and they often become congested or disorganized through secondary causes.

* * *

AS AN OSTEOPATH YOU SHOULD KNOW

That when we say the fourth dorsal is the center for pneumonia we do not mean it is the only place to treat for pneumonia, but that it is most likely in the greatest number of cases to be the center.

That in posterior lumbar conditions all the foramina are larger—none of them smaller.

That conversely in anterior dorsal conditions every foramen in that curve is smaller and no others are affected.

That you can have at least half dozen vertebral foramina all smaller or all larger and no others affected.

That the foramina are larger than the structures passing through so as to readily accommodate changes in our position.

That vaso-motor irritation shuts off blood supply.

That the nerve that passes out of the segment gives a branch to the sympathetics.

That there is no such thing as a pure grey ramus.

That all rami are mixed or white, and what we formerly called white rami are now known to be mixed.

That a few of these fibres go to and come from the spinal joint supplied by that segment.

That other of these fibres go to the little ganglion that particularly controls the blood vessels in that neighborhood.

That in the intercostal region from the cord to the small individual ganglion there runs a little fibre both ways—a little strand which is easily seen with the naked eye—that controls the artery going to the spine.

That any irritation will set up vaso-motor disturbance.

That the nerves going to the pelvic viscera have to pass the sacro-iliac joint.

That the slightest motion of this joint affects the nerve fibres which pass over it.

That lesions of this joint produce more pelvic trouble than lesions anywhere else.

That if this joint was immobile the pelvis would be almost free from disease compared with what it is now.

That spinal nerves have foramina in the fascia of the back.

That they are little fibrous ones which thicken when there is a spinal lesion and you have a contraction of the muscles of that area.

That after contraction has existed a little while it acts the same as a blood clot.

That myosin begins to deposit in it and then it becomes a contraction and becomes infiltrated with round cells.

That they finally develop into spindle cells and it is then a contraction and cannot be entirely absorbed.

LOCATIONS AND REMOVALS



Chappell, Dr. Will F., from St. Louis, Mo., to 420 W. Okmulgee Ave., Muskogee, Okla.

Day, Dr. Mary Warren, from 633 to 655 Congress St., Portland, Me.

Gable, Dr. Mary LaFonda, from Evanston, Ill., to Downer's Grove, Ill.

Givens, Dr. Laura Belle, from Kirksville, Mo., to 222-4 Coronado Bldg., Greeley, Colo.

Kennedy, Dr. S. Y., from 37 Second St., to 54 First Ave., Gloversville, N. Y.

Matson, Dr. J. E., from Eau Claire, Wis., to 317-9 Palace Bldg., Minneapolis, Minn.

Miller, Dr. D. F., from Mt. Carmel, Ill., to Box 755, Lawrenceville, Ill.

McHolland, Dr. F. N., from Olympia, Wash., to Burlington, Wash.

Pennoek, Dr. Daisy, from San Angelo, Texas, to Clarendon, Texas.

Schrock, Dr. J. B., from Bedford, Ind., to 645 S. 14th St., Lincoln, Neb.

Shupe, Dr. Grace, from Kirksville, Mo., to First Nat'l. Bank Bldg., Monongehela, Penn.

Teall, Dr. Chas. C., from Weedsport, N. Y., to Fulton, N. Y.