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MANIPULATION IN SPRAINS AND FRACTURES.

DR. CARL P. McCONNELL, CHICAGO.

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In considering the subject of manipulative treatment in sprains and
fractures, I am going to quote quite freely from various surgical authorities of fractures
as well as sprains, both from the past and present, in spite of the danger of becoming tensive. My object
in referring to surgical authorities from several years ago is to show that influence, if any, of our existing formal osteopathic
practitioners upon medicine in general and surgery in particular. Such an influence, a
school of medicine that claims manipulation as a chief characteristic feature,
would be felt in those departments of the healing art that must recognize mechanical
treatment in virtue of a mechanical cause or injury. I believe fractures and sprains offer characteristic examples.

There are two paramount factors in the problem of manipulation in the
treatment of sprains and fractures; to wit: immobilization and manipulation
(multiplication is to be inclusive of all active and passive exercises and movements and massage; and not the manipulation required at the time of reduction of a fracture). The former, immobilization, is dependent upon the efficacy of the latter manipulative treatment. Much of the discussion and experiment relative to the above problem, has centered about the question of rest and
immobilization.

We are not to consider the matter of splints, bandages and modes of reduction in fractures. Neither is it in the province of this article to consider especially bandages, moisture, heat, cold, applications, etc., in the treatment of fractures. The manipulative feature is an extensive one, and, I believe, by far the chief one in sprains, and in fractures it is rapidly coming into vogue as a
treatment of great efficacionsness and prominence.

It may be of passing interest to note that twenty-three centuries ago that
wonderful physician, Hippocrates, thoroughly believed in exercise and massage for a weakened joint or a withered limb, or stiffness from a fracture or other mechanical injury. A literal translation from the Greek of his says: "It
should be kept in mind that exercise strengthens, and inactivity wastes." In
several places of his work on surgery he advocates and gives friction treatment
on fractures; and one place in particular, "no splints" where the parts are
atrophied. The more one reads the works of this great man the more he is
astonished at his really masterpieces. And just to think that a fair bit of his
surgical writings were unsurpassed a few years ago.
Caelen tells us in the second century, "that in surgical treatment an injured limb ought not to be too long kept entirely without motion."

**MANIPULATIONS FIFTY YEARS AGO.**

Chelius' System of Surgery of 1847 as well as Smith's Surgery of 1863 just barely mention passive movements as an incidental treatment for chronic sprains, and for stiffness and swelling resulting from fractures that had run into a chronic state.

Gross in his surgery of 1866 speaks encouragingly of movements in stiffness resulting from injuries, and in joint affections in particular. He says movements are stimulating and a tonic. Movement is to the joint what air is to the lungs or food to the stomach.

He certainly realized the necessity of movement and activity in an injured member, but still his writing on this particular phase is slight and indefinite as to instructions. So we can fairly say, judging from the "orthodox" surgeries at least, that surgeons of five or six decades ago were but little influenced by manipulative methods. What little was done in the way of manipulation took the form of active and passive exercises.

Then coming down to a later period by twenty years, we find that Holmes' System of Surgery of 1881 and Erickson's Surgery of 1884 do not give as much space to the subject as did Gross of 1866. It seems to me they are strangely silent on this matter. Really they have but little more to communicate than has Sir Astley Cooper in his works of fifty years before (still it may be well to remember that in Cooper's time parts of the work on surgery were not so complete as some of the writings of Hippocrates, notably dislocations of the hip).

**WHAT MORE RECENT AUTHORS HAVE TO SAY.**

Coming down to works of ten years ago we find a greater yet by no means satisfactory interest taken.

The American Text Book of Surgery of 1896 says on the treatment of sprains:

"After the active inflammation has subsided massage is of great value, and its easy employment is advised by many surgeons. True active and passive motion of the joint from the first, as has been strongly advised by some, is painful, and cannot be otherwise than injurious when the sprain is a severe one. By far the best treatment, as a rule, is immobilization of the joint by the application of a plaster-of-Paris bandage."

Here it will be seen that a division of authorities is manifest as to the advisability of massage and motion, and, naturally enough, the authors are on the conservative side in their publication.

The same text under treatment of fractures says: "weakness of the muscles can be relieved by massage."

"As regards passive motion, it is rarely required or even useful and as so often employed, under either or with the production of pain, it is actually harmful." The same conversation is shown here.

Parke's Surgery of the same year, 1896, under fractures says: "where there is much atrophy of the soft parts massage exerts a good influence."

Relative to sprains there is nothing mentioned along the line of manipulation.

**PRESENT ATTITUDE OF SURGEONS.**

We will now see what the very latest text book surgeons have to say.

Remember this is the period of by far the greatest osteopathic development and influence.

Senn, in his Practical Surgery of 1901, tells us that massage and manual treatment are of considerable value.

The International Text Book of Surgery, 1902, under fractures states:

"The general rule of liberating joints from confinement by shortening or removing splint as soon as possible should be followed. Gradually applied passive and active motion should be instituted in all cases as early as the other conditions will permit. In this massage is a most valuable measure."

Under the treatment of sprains, "massage should be begun early, in order to avoid, as far as possible, weakness of the muscles, and to ensure security to the position of the joints by the retention of a proper tone in them. As in contusions the rubbing should be applied to the muscles while the joint itself is too tender to bear direct manipulation; and, in fact, it is to the muscles rather than to the joint itself that this treatment is more useful. In some cases, particularly the ankle and wrist, effusion into the tendon-sheaths around the articulation may be a more prominent feature than the joint-effusion itself. The same treatment in the main should be adopted, bearing in mind the necessity of earlier movement in the case of the tendon-sheaths, and the special efficacy of frictional treatment. Beyond massage properly limited and graduated exercises, so arranged that the supporting tendons are braced while the damaged part of the joint capsule is not stretched, are of great value."

The recent edition of the Reference Handbook of the Medical Sciences on fractures quotes a rule from Stimson: "So long as the joint is swollen and hot, so long as its use is followed by an increase of swelling and heat and by persistent pain, so long must it be kept at rest; and so long must active treatment be limited to massage or elastic compression; and, as a rule, this attitude of non-interference may be maintained until after union of the fracture is complete. Then passive motion or gradually increasing use of the limb will rapidly restore the function of the joint." Stimson does not believe in forcible passive motion. Neither does the writer in the Handbook believe in forcible manipulation but he thoroughly believes in massage.

The Reference Handbook under sprains: "To promote absorption and restore the function of the joint there is nothing as good as massage which should begin on the second or third day."

It then continues minute instructions as to the giving of massage and passive movements.

It also says: "Immobilization for more than a few days, as under the older methods, is objectionable because adhesions are apt to form, thus causing
impairment of function, and because when there is a tubercular taint, proper conditions for a localized tuberculosis are established (Numford)."

These principles and ideas are thoroughly osteopathic. Just what the osteopaths have been advocating for a decade. Moreover the osteopaths carry out the same principles, consistently and rationally, to all parts and organs of the body. The quotations from the Reference Handbook include only a fraction of the good stuff given on the subject. This work was published only a few months ago. Verily, the osteopathic claims are being recognized, in principles if not as to priority.

SAIous Analytical Cyclopedia of Practical Medicine states under fractures that massage and passive motion is to be advocated after the acute stage.

Under sprains it includes the following from Douglas Graham in the Boston Medical and Surgical Journal, June 24, 1897: "A plan of treatment that seems to be well suited to sprains of all degrees of severity, and which can be used with or without fixed dressings and bindages, according to the indications, is massage properly applied. Massage should not be begun immediately over a recently injured joint; neither should passive nor active motion be encouraged." * * * "* * *, deep manipulation, or massage properly so-called, may be brought into play." * * * *

"In recent sprains and synovitis this method is rational."

CHICAGO MEDICAL SOCIETY ON SUBJECT.

Of particular interest to the osteopath is the paper prepared by Dr. Eisenbruth on "Early Massage and Movements in the Treatment of Fractures and Sprains," and the discussion that followed before the Chicago Medical Society, a short time ago. The Illinois Medical Journal, December, 1903, contains a report.

Dr. Eisenbruth said in part: "The former routine of immobilizing all fractures and the adjacent joints for a period of four to six weeks must, I feel, be subject to slight modification in the light of recent experiment and it shall be the aim of this paper to show what these changes are. When we are called to a case of a fracture, it should be one's first duty after its reduction to consider how can I best aid the patient in recovering the usefulness of his or her limbs? Can we shorten the long convalescence with its resultant loss of valuable time and earning capacity? How can we most rapidly restore to the limb its normal joint functions and prevent an atrophy of muscles and an ankylosis which will require many months to overcome?" * * * *

"The use of massage and of active and passive movements in the treatment of fractures and of severe sprains has been gradually gaining in the number of its advocates through the writings of Lucas-Championniere of Paris. We owe him a great debt for calling the attention of the profession to the employment of these methods in order to prevent atrophy and ankylosis as well as to promote healing."

One of Championniere's first articles was published in 1866, and not until the present moment are some well known members of the medical profession giving this matter their first serious thought. It has taken, for many, nearly twenty years to begin the use of this simplest, most common sense and rational practice. Now I wonder if the osteopaths with their extensive and phenomenal growth of the past ten years have been a factor in this matter.

Let us continue: "Before taking up my subject in detail permit me to recall a few salient points in the surgical pathology of fractures. Soon after the injury the blood clot around and between the ends of the fragments is absorbed and replaced by a jelly-like mass of young connective tissue cells called the callus. It corresponds to the solder which the plumber places over the ends of two pipes he desires to join. Bone begins to form at the periphery of the callus about the tenth day and advances toward the center rapidly, forming a ring of bone around the ends of the fragments so that by the end of the third week there is but slight abnormal motion at the point of fracture (exception to this is the femur). This entirely disappears by the end of the fourth week, especially in young people, and the union is firm. In the case of the femur it requires six or eight weeks. The greater the displacement of the ends of the fragment, the larger the callus and slower the healing of the fracture.

"During these changes (callus formation) the muscles which supply the immobilized joints atrophy and the circulation in the skin and neighboring tissues is sluggish, resulting in swelling, etc., of the limb. The enforced rest causes more or less fluid to accumulate in the tendon sheaths and joints. This becomes organized and results in fibrous ankylosis of the joints and great impediment to the free action of the tendons within their sheaths. It is this atrophy, fibrous ankylosis and teno-vaginitis which interferes with the restoration of the normal functions of the limb."

I have given the above in detail, for it clearly and vividly sets forth the pathology, and which evidences the rationale of manipulation.

"Can we decrease the amount of wasting of muscles and control the stiffness of joints and tendons after fractures?"

"It is the belief of the writer, based on a large experience, that the earlier use of massage, active and passive motions, will to a great extent eliminate the above conditions, which retard convalescence and in some cases cause permanent disability.

"Massage of an injured limb increases the amount of blood supplied to it, promotes the absorption of the swelling and prevents atrophy of muscles. In the case of a joint injury the exudate rapidly disappears and the articular surfaces can be again approximated so that movement is facilitated. By the cautious use of active and passive movements, either with or without the aid of apparatus, the normal functions of a joint can be rapidly restored." * * * *

"The active and passive movements of the limbs can be carried out immediately after the massage but should only be permitted for a period of five minutes at first and the time then gradually increased. When a severe sprain, say the elbow or ankle is first massaged, the pain seems to be almost unbearable, but this discomfort as well as the swelling rapidly disappears and it is sur-
prizing to those who have never applied this treatment how quickly the normal functions of the joint re-appears. The same applies to the synovitis which accompanies fractures in close proximity or even into joints.

The relief given these cases by massage, movements and manipulations by the osteopath is a daily experience, and results to him are not surprising. Then in addition to what the surgeon would do, the osteopath applies his principles of careful detail readjustment, which superior skill of touch and manipulation has especially trained him for.

Dr. Eisendrath continues his paper by referring to the principal varieties of fractures and giving the treatment for each. He says that if correct treatment is carried out with proper massage and movements in fractures of one or both bones of the leg the patient will be at work in six or seven weeks instead of three or four months, that in Colle's fracture some surgeons do not employ a splint, that in fractures of the olecranon massage from the first week on is of the greatest use, etc. This part is very interesting but space forbids giving it.

He then concludes his article with citation of several very interesting cases of fractures and severe sprains. These cases are exceptionally interesting to the osteopath, but still the same good treatment and results are duplicated every day in the osteopathic school.

The doctor's contraindications to the use of early massage in fractures or sprains are the following:

"1. Tendency to displacement of fragments in oblique fractures. Under such conditions it is best not to begin either massage or movements until the union is firm (fourth to fifth week).

"2. In compound fractures until the wound is healed.

"3. Whenever the condition of the skin is such as to permit of infection; for example the presence of blebs, or extensive abrasions.

"4. The presence of fragments which project but do not penetrate the skin."

His conclusions are:

"1. Massage, active and passive motions prevent atrophy of muscles, tenovaginitis and ankylosis so frequently accompanying and following fractures, especially those close to the shoulder, elbow, wrist, knee and ankle joints.

"2. They give far better results than complete immobilization in the majority of fractures."

In the discussion that followed Dr. Henrotin said that for some time, "I have never put a restraining apparatus of any kind, nor have I used any lotions or any spray, no matter how severe. * * * * *

It has taken many years to bring this subject before the profession. It is a method that is absolutely effective as regards sprains and some forms of fractures. I have treated several hundred such cases with the greatest success." He also said that, "In treating an inflamed joint it is improper to use a restraining apparatus of any kind. I consider that the plaster cast is the bane of all inflamed joints unless there is a specific form of infection, a traumatic condi-

tion." Neither does he believe that an inflamed joint should be put at rest. He says the patient is a good judge as to the amount of quiet the joint needs. He has treated four Colles fractures and two fractured clavicles without bandages or apparatus.

The above questions of rest and immobilization are very live ones with the osteopathic school. We have been criticised by surgeons as to our attitude in this matter. Rest, quiet and fixation of an injured joint have been rules that should not be violated under any condition. Surgeons have thrown up their hands in horror at the thought of manipulation. Even in our own rank the past year brought forth discussion that bore on this matter, at least incidentally and indirectly.

Dr. Kerecher cited the seven hundred cases given in Douglas Graham's book of 1893 where they got well in one-third the usual time. Dr. Kerecher would not think of using a plaster cast in any uncomplicated sprain.

Dr. Hosmer said that, "In the treatment of sprains (so-called), I am an advocate of, and have for eleven years past practiced in every case coming to me (whether the condition of the joint was acute, subacute or chronic, primary injury or relapse, after partial recovery), a far more radical method of treatment than the doctors advocate. I use no retractive apparatus of any kind—splint, bandage or plaster strapping—use massage and movements in loco, and, if needed, of the whole limb and order and encourage the freest functional use of the joint possible to the patient from the very start."

Dr. Moyer gave an interesting personal experience as follows: "In 1896 I sustained a very severe concussion followed by synovitis of the right knee. My first surgeon was Dr. M. H. Richardson, of Boston, who told me to stay in bed for a few days and then get about with a flannel bandage on. A few weeks later I came to Chicago and consulted five of our most prominent surgeons; in fact, I asked everybody I met for advice concerning my chronio synovitis. I was almost helpless; I could go to my office and that was about all. None of my surgical friends agreed as to the line of treatment. One said I ought to go to bed and have the joint drained. Another would put it in a cast, another thought I would get well in about a year or two if I would just keep quiet. One man, in whom I have great confidence and who has had a very wide experience, said: "your knee will never get well. It will always bother you." It was disheartening.

"I saw Dr. Henrotin and he sent me to Dr. Hosmer, who officed in the same building with me. He found a chronic synovitis with an exudate. There were adhesions in the joint; the range of motion was very limited, about twenty per cent of normal motion. In two weeks, under daily manipulation of a minute or two, there was absorption of the fluid in the joint, and by passive movements full motion was restored to the joint. The joint was perfectly well in two weeks and it has been so ever since."

Now what does the preceding teach us as osteopaths? I think as far as technique of treatment is concerned there is nothing new; on the contrary our
strictly osteopathic work is quite superior. But it shows us the rapid trend of therapies with the older schools—a tendency to more rational methods, fewer apparatus, less drugs, more dependence on nature, in more osteopathy. A short time ago typhoid fever was treated almost entirely with drugs; to-day the progressive practitioner rarely employs them in this disease as in many others. Is it the influence of the osteopathic school of medicine that is bringing about this change in other schools? Or is it the same cause and influences that originated the osteopathic school? Unquestionably the trend of all medical thought has been for some time to simpler methods of living, fewer drugs, and to a more rational surgery. It is in the air. The popular wave of physical culture, out-door athletics show it. Scientists of all countries are advocating new and simple natural remedies, and are doing away with the cumbersome and artificial drugging and prescribing of the past. We are in an era of rapid progress. Osteopathy is the capstone of medical progress. It has many new features, but its principles are extensive and inclusive. Other schools have discovered and utilized osteopathic ideas and therapies in a fragmentary way. But after all has been said the osteopathic school is the first natural and comprehensive system of rational therapies. The other schools are coming to our way of thinking, and, indeed, are already employing some of our methods. As to the manipulative method in sprains and fractures, perhaps osteopathic influence has been a potent causative factor for the rapid, and in some ways diametrical, change of procedure in the past ten years? I think so. Compare the text of the American Text Book of Surgery of 1896 with that of the paper and discussion in the Illinois Medical Journal of December last.

**MOULLIN ON SPRAINS.**

I wish every practicing osteopath had a copy of the little work of Dr. Moullin's on the consequences and treatment of sprains. I believe it makes a better osteopath of him who reads it. It is full of osteopathic thought.

Among many excellent ideas in the chapter on forcible manipulation I desire to especially note the following:

"Manipulation is much more useful than division; it can be employed for such a variety of purposes. In the early stages it prevents the occurrence of stiffness or the formation of adhesions. Later, when the swelling and heat have disappeared, it is no less successful in restoring freedom and ease of movement, and afterward, when all mechanical obstructions have been cleared away by its use, it is one of the most effectual methods known for bringing back the circulation and nutrition of the part, and giving again to the muscles and nerves the energy which has so long been wanting." * * * * *

"To carry this out effectively two things are needed beyond all others. The one is a sense of touch so delicate that it can appreciate the least resistance or irregularity of movement; the other an accurate knowledge, not merely of the ordinary anatomy of the part but of the different degrees of tension that fall on the ligaments in every position of the limb.

"Each joint requires a different kind of manipulation according to its construction." * * * * *

"There should be no jerking. The movements must be vigorous and forcible, but perfectly smooth; and they must be carried out thoroughly, the joint being moved to its full extent in all directions that are natural to it. Each kind of action should be combined successively with the rest, one by one, so that the tension may fall in turn upon all the different parts of the capsule. "Movements which are especially restricted or painful of course require most attention, but the others, though they may not be affected to the same extent, are not to be neglected. It sometimes happens if these are dealt with first that a considerable proportion of the main obstruction is cleared away, as it were, by side attacks, so that when its turn comes it yields more readily than it otherwise would.

"Recent slight adhesions give way at once without a sound, though the sensation is generally conveyed to the brain. They are older the noise may be as loud and clear as when a bone is broken. * * * * *

"The after treatment of these cases (cases where there has been tearing and breaking of adhesions) should be in all respects the same as that of a recent sprain, only if passive motion at an early date is advisable to prevent the occurrence of stiffness in the one, it is absolutely necessary in the other."

The chapter on massage of sprains is as full of good ideas as that on manipulation, and I am sure I will be pardoned for quoting some paragraphs at length. The idea is so closely associated with much of ours on the treatment of sprains, that one would almost think it was written recently by an osteopath.

"Massage, in the strict sense of the term, is a great deal more efficacious especially with older sprains. Its action is not limited to the skin and superficial structures. These undergo immense changes, it is true; they become softer and finer while under manipulation; their strength and elasticity increase, the extreme tenderness diminishes, and the natural appearance and texture return. The surface loses its dry harsh character and becomes warm and moist again; the livid bluish color gives way to a brighter hue, and the deeper layers of fibrous tissue yield and stretch, so that the hide-bound shrunken condition that is often present after long disease gradually passes off. But the good effect is not by any means limited to, or even most conspicuously shown by, this. When properly carried out massage exerts a simultaneous influence on muscles, nerves, and vessels, in fact on all the tissues within its reach.

"The circulation is the first thing to feel its power. It has already been explained how, after prolonged rest, the blood, as it were, lies almost stagnant in the tissues, slowly circulating through them, and neither giving them sufficient for their nutrition, nor removing from them the waste products of their action. This is changed at once. The life of the part is quickened. The veins and absorbents are emptied first, and the fluid they contain driven out into the heart, which fills more rapidly, and contracts more vigorously and firmly. Then the pressure falls in the smaller vessels, and the tiny irregular
spaces, full of lymph, which extend in all directions through the tissues. These, in their turn, are compressed and mechanically emptied, their contents being driven on into the empty vessels, from which any backward flow is prevented by the valves. The circulation becomes more rapid; nutrition is carried on with greater energy, and the actual amount of blood in the tissues at any one time so much increased that they become full and soft to the touch and regain the even and rounded contour of active health." * * * * * * *

"It is most essential to commence as gradually and as gently as possible, only working on the deeper tissues after the more superficial ones have become thoroughly accustomed; and have been unloaded of their surplus fluid. The skin, the soft subcutaneous tissue, the muscles, and the deeper layers, must all be worked in turn. Nor should the manipulation be confined to the injured part. In a sprain of any standing the whole of the limb is affected more or less. It is usually better to devote attention first to the parts nearer the trunk than to deal with those around the injured area, and only afterward, when the circulation is thoroughly re-established, to manipulate the joint itself.

"The tendency is to make the settings last too long. Deep manipulation itself rarely requires more than five minutes; but in dealing with a recent injury it may be advisable to spend a longer time than this over the friction and other preparatory measures, so that a quarter of an hour soon passes by. When the tenderness is very great, and the amount of swelling excessive, much longer than this may be necessary, but short, frequently repeated settings are of greater benefit than one long one. A skillful operator, too, will often effect more in a few minutes than an ordinary rubber will in as many settings."

Halder Sneeve in the Journal of the American Medical Association of June 1st, 1901, sums up his conclusions as to the muscular and joint sprains as follows:

"1. Ligaments are rarely, if ever, torn in so-called sprains, and are never stretched. 2. Pathology in the majority of strains is rupture of the arenular and connective tissue around the joint, and a contusion of the lining of the joint. 3. Immobilization of muscles is not rest. On the contrary, in all sprains the muscles should have passive exercise the first few hours and days, and active exercise after that. In the majority of cases active exercises should be instituted from the beginning. 4. The plaster casts should not be used at all, even in cases where we have a fracture, unless it be impossible to maintain a proper position of the joint. 5. Hydrotherapy in the shape of ice applied over a wet cloth the first few hours; water in the shape of the Scottish douche, is of very great value. 6. Counter-irritation of static electricity in conjunction with massage is the best treatment for a strain. 7. The ambulatory treatment of sprains in conjunction with massage is to-day the best treatment."

HOW OSTEOPATHY MEETS THE ISSUE.

In conclusion there is but little to add to the gist of the foregoing. The osteopath believes in conservative surgery. Just because the majority of the surgeons in the past did not advocate a certain method of procedure in certain instances, or just because a passing fad in surgical work is popular with nearly all surgeons, does not necessarily constitute rational, or natural, or even sane surgery.

If osteopathic principles are consistently carried out, then in virtue of these principles, the best possible is done.

A brief summary of osteopathic procedure in fractures and sprains would be as follows:

In fractures:
1. Immobilization in those cases especially demanding it, from the character of the fracture, until callus formation assures solid and firm union.
2. Manipulation and massage and movements of parts at an early period, computable with above, to render all soft tissues pliable and a normal circulation, to remove stiffness and adhesions, and to exercise and function the parts.
3. In cases of laceration of soft tissues, abrasions, etc., great care should be taken so as not to infect the parts.
4. Great care must be taken where fracture is compound, and where fragments exist.

In sprains:
1. Re-adjustment of parts and removal of obstructions. Osteopathy is peculiarly adapted in these cases, for two of the principal therapeutic factors in all cases from an osteopathic viewpoint, are to re-adjust parts and to remove obstructions. Remember, "a temporary displacement followed immediately by a return to place, constitutes a sprain." Although the osteopathist often finds that a perfect returning does not take place, and even somewhat remote lesions may affect a joint.
2. Manipulation and massage of soft tissues of joint to restore circulation.
3. Anatomical re-adjustment and manipulation in chronic cases to break up adhesions, to remove exudates, and to cure synovitis.
4. Movements to stimulate and exercise functions of joint.

I am sorry time does not permit the citing of many interesting cases of sprains and fractures, although of course all practicing osteopaths have had numerous experiences. I will cite just a few. Outside of the special manipulative osteopathic features two points remain to be emphasized. First, immobilization in all fractures is not by any means necessary or even good surgery; immobilization in the average sprain is poor treatment. Second, rest of a sprained joint is not generally necessary, on the contrary movements stimulate and tone the parts.

It is not to be understood that I favor osteopathic manipulation and massage as interchangeable terms. On the contrary there is the widest difference in principle, as well as in use. Osteopathic manipulation is as much superior and comprehensive to massage as massage is to mere rubbing. In the matter here considered, fractures and sprains, the really peculiar and characteristic therapeutics of osteopathy are not demanded in every instance, viz., anatomi-
cals of the work. The explanation, I believe, indicates my somewhat apparent disregard for the technical definitions of osteopathic manipulation and massage. Remember there is a wide difference between osteopathic manipulation and manipulation and massage.

Case A: Young man, twenty-five years old sustained comminuted fracture of lower third of tibia and fibula. The bones being fractured in several places it was probably impossible to approximate the broken pieces and to get a quick union. After being in the hospital for six months and about his work for another three months his leg was still swollen and all the joints of ankle and foot rigid. The foot was swollen to about one-third larger.

Six weeks of treatment reduced all the swelling of the leg and foot. Movements of the ankle and foot were then normal. The leg remained one inch and a quarter short from the overlapping of fracture. There was a slight tilting forward of the inmommitum on affected side that probably prior to its correction retarded circulation in the leg.

Case B: Young man, twenty years old with complete fracture of lower third of femur. The broken parts were not approximated, causing a shortening of the leg an inch and a half.

Six months after the accident he called for treatment for a stiff knee, on the same leg, that had followed the fracture; and was caused by faulty reduction of fracture and from disuse of leg. The range of motion was about five per cent of normal.

It required seven weeks of hard, thorough work to restore the knee to normal size and motion. The adhesions in the knee were numerous, the knee joint was undoubtedly also, strained at time of accident, and the shortening of the thigh muscles was considerable.

Case C: Lady sixty years old with Colles’ fracture and dislocation at wrist joint. Fracture and dislocation reduced under anesthesia. Passive movements and massage begun three weeks afterward, twice and three times a week. Splints were taken off only for treatment. At end of five weeks splints were taken off permanently. In two weeks more arm, wrist, hand, and shoulder joints normal.

Case D: Lady fifty years old with Colles’ fracture and wrist dislocation. Accident had occurred six months previous. Wrist, hand and fingers still swollen and rigid. Forearm and elbow joint normal. Shoulder joint stiff.

This case required six weeks work to restore to normal. Treatment given three times weekly.

Case E: Lady, thirty years old with chronic sprain of knee, one year standing. Marked synovitis with exudate the main feature. Motion about one-third normal.

Three weeks’ treatment sufficed to restore knee joint to normal. Most of the work executed was to correct an upward slip of the inmommitum.

Case F: Man, thirty years old with severe sprain of ankle joint of forty-eight hours standing. Home remedies that he tried proved ineffectual as, also, did osteopathic work for the second forty-eight hours.

Had radiograph taken which showed a slight displacement between astragals and oscoilis. In seven days from time of beginning specific treatment ankle was normal.

There are several other cases with interesting features that I would like to add, but I know all of you have had similar ones. Cases of fracture of neck of the humerus with partial dislocation of the shoulder joint, fractures of the neck of the femur, sprains with partial and complete dislocation of the elbow, fractures of the clavicle, sprains of the ankle, sprains of the knee, etc.

Then might be added cases with tubercular and other complications but these hardly come within the province of this article.

If in doubt as to the actual relation of the tissues undoubtedly the Roentgen ray will be most helpful. I invariably secure a radiograph; one can work much more intelligently. And, thus, the restoration of function, reduction of swelling and synovitis, relief of hyperesthesia, etc., can more readily be accomplished. In chronic cases the first few treatments may seem discouraging, but you will observe that when the tissues begin to yield they will give way readily.

Stimson’s work on Fractures and Dislocations and Sudder’s late work on Fractures are books of value to those desiring special detail surgical knowledge on this subject.

Note.—When this paper was presented to the Chicago Society it should be considered that due verbal explanation was made relative to my somewhat apparent disregard to proportional values of osteopathy and massage. The principal idea in this paper was to give something on the order of a short history and resume on the importance of manipulation in sprains and fractures; in other words to show the trend of surgical development in this phase of treatment. Often, indeed, very often, the osteopath is called upon to treat joint and bone injuries; and where osteopathy is peculiarly applicable, is in the mechanical re-adjustment, correction of the anatomical—simply an exemplification of the general theory of osteopathy. Far be it for me to confuse the reader by even intimating that massage and movements are on a par with osteopathy; they are valuable auxiliaries, nothing more or less. Osteopathy has proven itself especially efficacious in the above ailments. Our work marks a decided
THE BULLETIN.

and medical advance in the surgical field as well as in the medical. The valuable
point to be learned in the above presentation is that anatomical integrity is
the key to a successful therapeutics and exact and definite re-adjustment
work is the modus operandi.
January, 1905.

***

Bone-Ennis.

Married, at the home of the bride's parents, Mr. and Mrs. E. L. Bone,
Petersburgh, Illinois, Feb'y. 11, 1905, Miss Ida Bone and Dr. Emery Ennis.
The ceremony was performed by Rev. Charles Smoot of the Christian church.
Dr. Ennis graduated with the June '04 class and was one of the best students
that ever graduated from the A. S. O., as was evidenced by his making
the highest mark ever attained by an applicant before the Illinois State
Board. The bride is a sister of John F. Bone, a member of the senior class
and a trustee of the club.
Their future home will be in Springfield, Illinois, where the Dr. has es-
established a lucrative practice. The Bulletin extends congratulations.

THE BULLETIN

OF THE ATLAS AND AXIS CLUBS—Published by the Clubs.

SUBSCRIPTION, $2.00 PER YEAR

W. W. VANDERBURGH, Editor.
M. O. E. BENNETT, Reporter for Atlas Club.
MISS ANNIE BROWNLEE, Reporter for Atlas Club.

Entered as second class matter, October 12, 1898, at the postoffice at Kirksville, Mo.,
under act of Congress of March 3, 1879.

KIRKSVILLE, MISSOURI, FEBRUARY, 1905.

Editorials.

In assuming the duties of editor of The Bulletin, I desire to thank my fellow
members for the confidence they have placed in me and hope to prove
myself worthy of the trust. In this undertaking I am assured the co-operation
of the active members of the club and solicit the good will and assistance of
our members in the field.

We call the attention of our readers to our advertisers and most earnestly
request our Atlas and Axis members to patronize them as they represent
the very best in their respective lines.

The editor desires to express his appreciation of the kindness shown us by
Mr. Frederick J. Einert in so ably assisting us in securing the advertisements
appearing in this issue. These advertisements help us very materially in meeting
the increased expense due to the enlargement of the Bulletin.

We beg to acknowledge receipt of "Genuine Osteopathy," a publication
printed for the purpose of advertising our predecessor, Dr. T. Simpson McCall
and his partner, Dr. C. H. Murray.

We quote the following from "Genuine Osteopathy:"

"Patients have been injured in Elgin by injudicious treatment."

"The Murray-McCall osteopathic offices are headquarters in Elgin for
genuine osteopathy, hence for osteopathic results."

Many similar ones might be quoted.

Just prior to his departure for Elgin, Ill., Dr. McCall handed us a list of
changes in addresses and informed us that all other changes or corrections to
the Atlas directory prepared by him and published in the October Bulletin
could be found in the November, December or January issues. We have examined
all these and fail to find any notice of the removal of an Atlas brother,
whose address is given as Elgin.

We presume from this that the Atlas club is represented in Elgin by one
who is practicing adulterated osteopathy. If this be true, we think the
brother should withdraw from the club as such practice is diametrically op-
posed to the spirit of the club; as is also the injudicious advertising indulged in by Drs. Murray and McCall.

However, we believe that this method of wholesale advertising will do far greater injury to the profession than is likely to result from the use of adjutants by one physician and we regret very much to see it indulged in by those from whom we expected more professional conduct.

"When the ocean beds were dug out and the waters called off from a part of the earth's surface; when the mighty peaks and majestic turrets of the mountain chains were lifted into the sky; when the encompassing atmosphere was filled with all life replenishing element and wrapped about the ocean's shores; when the poisonous forces destructive of man's life were locked up in soils and rocks, when the meadows were sown with grasses and the hospitable arms of the trees were loaded with fruit, then upon the earth, adorned and ready for his coming, man appeared."

And from that day to this through his struggles with nature he has been piqued into a determination to conquer her, to ferret out her secrets and to master her processes.

What a striking illustration of this desire is Doctor Still's Life! When he set to work to ferret out the secrets of the mechanism of the human body and to master its laws of production and repair, he applied the motto written on the crest of an ancient pick axe, "Either will I find a way or make one" and by his perseverance, determination to triumph, and self will power did he present a lasting monument to posterity.

In order to disseminate this knowledge, the American School of Osteopathy was established.

As the students became more interested in the school and in the work, they felt the need of an organization which would bind them more closely together and in which they could advance the interest of the school and of osteopathy, so in the winter of 1898, the Atlas club was formed with these objects in view.

Each year has seen it steadily advancing and it stands today the strongest osteopathic fraternity in the world but we cannot rest where we are today or on what we have been or done in the past. The osteopathic schools are advancing by leaps and bounds. The Atlas club must not only keep pace with them but should be a little in advance.

It seems to us that the duties of our club members are similar to those which Webster pointed out to the people in his famous speech on development and that we should let the sacred obligations which have devolved upon this club and upon us sink deep into our hearts.

Those who established our fraternity have gone into the field and the great work which they started is shared with us. Let us apply ourselves to that which is presented as an appropriate object. We can win no laurels in establishing the science earlier and worthier hands have gathered them all but there remains to us a duty of defense and preservation and there is opened to us also a noble pursuit to which the spirit of the times strongly invites us. Our business is improvement. Let our age be the age of improvement. Let us develop the resources of our club, call forth its power, promote all its great interests and see whether the Atlas club may not become still more of a power in the osteopathic world.

** * *

January 29, 1905.

STYLIUS ATLAS CLUB,

Kirkville, Mo.

Dear Sir:—In the Bulletin of January, 1905, members of the club are exhorted to give "first choice to the Atlas Man," etc.

When the Atlas club was intended to represent the best scholarship of the school, its membership roll might well have served as a guide to the best in the profession.

When the qualifications of a "good fellow" became an equal or superior claim to membership—as was certainly the case for two years at least, then the club became no less congenial or popular but its membership roll became about the last document to be used in choosing the best practitioner in a given locality.

Unless membership in the Atlas club is a guarantee of much higher professional ability than it was three years ago, the plan suggested is trades unionism of the narrowest and most dangerous type.

Yours truly,

FRED JULIUS FASSETT.

We quote in full Brother Fassett's letter and feel certain he is correct in his statements as regards a part of our membership of a few years ago. In this he is amply borne out by the Pythian's books which show a balance of $750.25 due the club from its field members; but this element is rapidly eliminating itself.

The duty of the present active members rests, not only with selecting the best material from the incoming classes; but it must also try to correct the mistakes of former times.

Since the days of Brother Fassett, other fraternities have arisen which soon gobble up the "good fellows" hence the Atlas is rarely compelled to turn them down.

We feel that we can recommend every man at present an active member of the club.

** * *

The Freshman Reception.

Returning to a former custom of the Atlas club the reception was this time given to the gentlemen of the new class alone and the Axis ladies will receive the ladies of the class at a future time. It was thought to be the better
plan at the present in order that we might associate in a freer manner and facilitate acquaintance. The idea worked like a charm and every freshman seemed to thoroughly enjoy the occasion.

After a short but spicy program all mingled together freely for two or three hours a special effort being made by the club men to make the others feel welcome and at home.

The program was opened by an excellent address by our Noble Skull, Dr. Owen, which was followed by a solo entitled "Mona," by Stephen Adams by Brother E. R. Ryerson, then an impromptu speech by Brother M. G. E. Bennett, after which Brother Ryerson again sang. Mr. Ed. Lottridge and the Wall Bros., traveling musicians furnished several excellent mandolin and guitar selections which were greatly enjoyed by all.

Light refreshments and cigars were served after the program.

The new class contains a great many excellent men who are greatly in earnest and wonderfully enthusiastic in the new work which they are undertaking. We hope that they were well impressed with our club.

***

The following names are published in accordance with amendment as published in November Bulletin:

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<th>C. Ballance, Jr.</th>
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Axis Notes

The committees are working hard each along its particular line.

The Constitution and By-laws are being revised—a much needed work—and will soon be ready for approval by the proper authorities.

Under the efficient management of its new officers the club is taking up the work of the present term with much interest and enthusiasm.
Dr. Clarissa Lufts has located in Washington, D. C.
Dr. Gertrude Forrest has returned to her home in Albia, Iowa.
Dr. Morelock and Feather are still in Kirksville.

We are pleased to record the following names as having taken the vow of allegiance to the Axis club: Mrs. Urn, junior; Mrs. Hart, Miss Carothers; Mrs. Messick, Miss Shepherd, Miss Balfie, sophomore.

The mother of Dr. Susie A. Sheldon died recently at Weedsport, N. Y., from the effects of an operation. We extend our heartfelt sympathy to our sister in her bereavement.

Dr. Susie A. Sheldon left for her home in N. Y. before the graduating exercises, because of the serious illness of her mother.

Dr. Carrie P. Parenton has located in Chicago.

Dr. Julia May Sarratt's shingle hangs to the breeze in Waco, Texas.

Dr. Maud Sheridan returned to her home in Colorado after graduation.

Dr. Lucilla Cheney went to Philadelphia and Dr. Cella Myers to West Virginia to locate.

Dr. Fullam accompanied her husband to Syracuse, N. Y., presumably for the purpose of locating there.

Social affairs are quiet just now as our members are all very busy getting acquainted with the work of the new term and the special club work.

The most desirable practical work is planned to suit the wishes of the various classes represented in the club and altogether the Axis club is in a very prosperous condition with a loyal and industrious membership willing and anxious to work for osteopathy and the club.

At the farewell reception given to our graduating members Miss Morelock read a very interesting history of her class-mates which was much enjoyed by them and also by the other members it being somewhat in the nature of a revelation to the latter as our seniors had kept their secrets well. Miss Vanderburgh's prophecies were well received by the seniors.

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**Atlas Notes.**

Dr. Clyde Gray has located in Horton, Kansas.
Dr. Wm. P. Dovier has been retained on the A. S. O. treating staff.

Dr. Franklin Hudson of Springfield, Massachusetts, reports a very flourishing practice.

Dr. W. A. Cole is very favorably impressed with his new location, Burlington, Iowa.
Dr. Geo. A. Martin has removed from Mason City, Iowa, to Ellensburg, Washington. We wish him success in his new location.

A beautiful new stove has been purchased by the Atlas club for the North Hall. It adds greatly to the appearance and comfort of the room.

Dr. Emmett Hamilton of the A. S. O. faculty is now confining his work to the treating staff in order to be able to devote more time to study.

We are sorry to hear that Dr. Fullam met with disappointment in Michigan but hope to hear of a more cordial reception in some other state.

Ex. Noble Skull, W. C. Stevenson and his wife have succeeded to an excellent practice, which we feel sure will increase under their able management.

Dr. M. E. Clark entertained the club on the evening of February 4th with some very interesting anecdotes. The Doctor's talks are always enjoyable events.

The By-laws have been amended so as to permit the Noble Skull to appoint a purchasing committee to serve through the term this greatly facilitates matters.

Dr. C. G. Wheeler of Brattleboro, Vermont, has affiliated himself with the Atlas club. We are very glad to be able to present Dr. Wheeler to our members in the field.

Our new officers are fast becoming familiar with their several duties, they have the undivided support of the members and everything bids fair to an unusually successful administration.

The presence of a number of men of considerable ability in the new sophomore class has sufficiently stimulated the appetite of the Atlas Goat, so we may expect the process of assimilation and absorption to begin early.

Dr. C. O. Cline of the June, '02 class, who has been practicing in Monticello, Ill., is taking post-work with the seniors. Dr. Homer Stewart has taken charge of his extensive practice and we can assure brother Cline that competent hands have succeeded him.

Brothers J. W. Martin and O. H. Kent were appointed by the Noble Skull to act as reporters for the Bulletin for the coming term. Owing to numerous other duties, Mr. Kent was unable to serve and M. G. E. Bennett was appointed in his stead.

M. G. E. Bennett was chosen representative of the senior class. Mr. Bennett is an orator of great ability and considerable experience, having been in the ministry for several years. He was president of his class during the freshman term and made an excellent record. No better choice could possibly have been made.

Dr. D. C. Cooper is in charge of the Spear's Steam Laundry.

To visit the best and largest assortment of Hardware and Stoves in the city. We are pleased to greet the student life of our city and if you will call we will gladly show you through our store. Chafing Dishes, Five O'Clock Teas. Elegant Pocket Cutlery, Razors that are a pleasure to use, and the finest razorstraps that the market affords. We hope to meet you in your needs. Very truly,

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Send your order at once to J. F. JANISCH, Kirksville, Mo.

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Axe members to visit our store at any time.

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and can furnish prints from
same.

THE B & F STORE

Personal

Dr. Sylvester Hart, the Osteopathic Phys-
ician, who has been so seriously ill with
appendicitis, is now entirely out of danger
and will be able to resume his practice by
the last of this month. The Doctor has been
treated by purely Osteopathic methods.
He is attended by Drs. Smiley, Mae V. D.
Hart and Dr. Smith of Buffalo.—The Times
Union.

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