An argument with the censor at St. Luke's Hospital, New York / by Hugh Owen Thomas.

AN ARGUMENT

WITH

THE CENSOR

AT

ST. LUKE'S HOSPITAL,

NEW YORK.

BY

HUGH OWEN THOMAS.

LONDON:

H. K. Lewis, 56, Gower Street.

LIVERPOOL:

T. Dobb & Co., 229, Brownlow Hill.

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"Is there any thing whereof it may be said, See, this is new? it hath been already of old times, which was before us."
—ECCLESIASTES I., 10.

AN ARGUMENT WITH THE CENSOR AT ST. LUKE'S HOSPITAL, NEW YORK.

In 1876 I published a Review of the Past and Present Treatment of Inflamed Joints. Although so titled, it was, in fact, a review of the so-called American method of treating diseased joints; whether the publication of my views has influenced subsequent practice is a question I will leave others to decide. This we all know, that the practice of the so-called American method fell off, so much that it is but seldom resorted to now in this country. Possibly this notable decline may in some degree be due to our not being favoured of late years with periodical visits from the great apostle of the American system. Last year, however, we were presented with a communication from one of the lesser lights of the American system. In the *Lancet* of December 2nd, 1888, Dr. Judson in an article titled "The American Hip-splint" gives the readers a history of the splint and the etiology, diagnosis, and mechanical treatment of hip-joint disease. The best refutation of Mr. Judson's paper, published in the *Lancet*, was written by himself, and was published in the *New York Medical Record*, May 1st, 1886, which article is a recantation of the opinions regarding the principles of the treatment of joint disease published by him in the *New York Medical Record* of July 7th, 1883, which,

notwithstanding his recantation, is again reproduced by him in the *Lancet* of December 2nd, 1888. His recantation was a full acceptance of the principles of my teaching, giving me only a covert acknowledgment in the following words: "I have none of my fellow workers in view, we have all been followers of Dr. G. H. Davis." The lecture was an epitome of my writings. While Dr. Judson was endeavouring to revive the American method here, I found that Dr. Shaffer of New York was placing the principle and the methods of treatment which are growing in favour in this country, in his surgical balance and since has decided that they were of short weight. He mentions as one of its faults, that it is "old fashioned," to this I will not object, and against it he points to the American method which is "totally new," to this, again, I cannot possibly object, believing this to be the *only* merit it can claim.

That my predecessors for the last hundred years worked upon the same lines as myself, does not add to my reputation, but the past cannot be undone, and it is my duty and pleasure fully to acknowledge the labours of my predecessors.

I have one advantage which qualifies me to pass an opinion on the American method. Early in life I was, in my practice, a close imitator and an ardent admirer of the best exponent of American Orthopedics, my friend Dr. Bauer, now of St. Louis.* Consequently from practical experience I know what the

* A surgeon whose portrait has been sketched for us by an opponent. "Professor Louis Bauer, of Brooklyn, (now of St. Louis) a German surgeon of very scientific attainments, with an energy that knows no limit, has devoted his time almost exclusively to this department of surgery. In fact, the professional mind of this

American method can do, and had it given me even the results possible by the mechanics of our predecessors, I should not have laid it aside for another. What can the method of the treatment of joint disease of which others and myself are the exponents do? We assert that every case of hip-joint can be cured without leaving a fractional deformity of flexion, and consequently without any shortening except that either arising from the arrest of growth, where inflammation has interfered with the growing points in the upper parts of the femur, or from erosion; no matter whether the case goes on to suppuration or not, or is even presented to us for treatment in an advanced state of suppuration. We assert the same as regards the treatment of knee-joint disease; and we gladly acknowledge that our practice is only an accentuation of the principles which our forefathers taught; and which principles surgeons in Great Britain and America with, beyond doubt, honourable intentions, but in error, have tried to discredit. The American method is not applicable to all the various stages of joint disease as the method termed by Dr. Shaffer "old fashioned" is known to be. Messrs. Judson and Shaffer utterly ignore the fact that diseased joints would recover without surgical aid but would be hampered by remaining deformity, which would diminish the usefulness or make useless the limb, just as with

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country has been attracted to this particular branch of surgery through the various articles of this able author in the different medical periodicals more than from any other source, and his lectures on this subject are very valuable instruction to Orthopedic literature." I also confess to having partaken of the fruit of this surgeon's labours, and though as time passed on we diverged, his influence was not totally unfruitful.

a fractured limb, the patient can recover without a surgeon, but a restoration of symmetry will not be probable. The American method, as introduced to us is only the addition of a mechanical contrivance to the efforts of nature with which it interferes by its weight to hinder the development of only extreme flexion; locking the knee by any simple contrivance would have the same effect, as the lower extremity locked at the knee by the extra weight of leverage attained gives more force than the flexor muscles of the hip-joint can continuously sustain. For the treatment of articular disease the means we require are not such that when in use there be a continuous tussle between them and the muscles controlling the joint. We want a method which will do in practice just that which nature tries to perform, i.e., immovably fix the articulation so that the intelligent (living) muscles, finding that their labour is no longer needed, take a rest until invited again to enter upon their duty. Messrs. Judson and Shaffer appear to make "traction" the distinguishing feature of the "American method," and, further, ascribe its introduction into surgery to United States surgeons, whereas, we know that traction was introduced into surgery by Mr. James, surgeon of Exeter, in the year 1839. At the annual meeting of the British Medical Association at Liverpool, Mr. James proposed it as a means of treating fractures, and subsequently Sir B. Brodie tried traction in the treatment of joint disease, and, we presume, it was not a success, or that excellent clinical observer would have continued its use. One of the modes of settling a disputed point in both

surgery and medicine is to make a comparison of statistics, and from them draw a conclusion as to the relative merits of the means in question—statistics collected from even a public institution are not always above suspicion. Not being attached to such an institution with its staff of clerks, a mere general practitioner like myself rarely posseses statistics of his practice, it is for this reason I do not produce any.

Supposing I had, however, collected statistics regarding any special treatment, it is obvious that these statistics would not be reliable, if from my writings or personal knowledge of my practice, the scrutinators found out that I had either neglectfully or ignorantly omitted a known reliable rule for diagnosing the slightest as well as the greatest degree of the disease and of its cure. Statistics collected under such circumstances would be of but very little value.

In the *New York Medical Journal*, May 21st, 1887, Dr. Shaffer publishes statistics bearing on the ultimate result of the mechanical treatment of hip-joint disease. The hip-joint is a favourite field with "tractionists," I suppose because there is plenty to pull at, and that it is the joint which is most amenable to mechanical treatment. In compiling the statistics, Dr. Shaffer was assisted by twelve medical clerks; that fact of itself excuses me neglecting to keep a register. In the paper published by Dr. Shaffer he gives an analysis of fifty-one cases of dispensary patients who had the advantage, when necessary, of being in-door patients, and wore an apparatus which locked the knee-joint. One case was excised and remained in bed

twelve months after the operation—just what I observed myself—not much gained by excision except where a sequestrum is ready for removal.

Five statistical tables are given—

No. 1 shows length of time under treatment.

No. 2 shows the length of time disease had existed previous to treatment.

No. 3 shows the relation between the absence or presence of abscesses to shortening.

No. 4 shows under ten years of age and after that age.

No. 5 shows the influence of the presence or absence of abscesses upon joint motion.

For various reasons ten cases were substracted from the fifty-one examined, and the five tables relate to forty-one only.

Let us suppose these tables to have been compiled under circumstances precluding any question arising regarding their value, then according to table 5, the result of the "American method" is that out of forty-one cases, three only recovered with perfect motion, sixteen had no motion, and sixteen had only limited motion, these last taken with the commentary attached to table 5, "examination proved that the amount of motion proves less as time goes by," practically brings the no-motion cases to ninety-four per cent. Better results would have followed if they had received no treatment whatever.

Table 1 is of no clinical value, it merely records the time under treatment. It neither records the condition of the patient at the commencement, nor is there any evidence of recovery at the termination. Nay, Dr. Shaffer's comments upon the cases is evidence that they were discharged as cured while yet unsound. It is true, we are told, "that many, if not all, of the patients treated in the dispensary are experimentally discharged as cured, before they are finally entered as actually cured." I shall, further on, prove that Dr. Shaffer has not so carefully studied my writings as to master the "experimental" test of soundness. I make him my debtor in this instance because up to the publication of my treatise on "The Hip-Joint," Dr. Shaffer nowhere refers to the "experimental" test, a test which is merely the reversal of the diagnostic test of the disease, which he seems equally unable to grasp, as evidenced in *American Clinical Lectures*, Vol. III., No. 6, as well as in this article. As soon as American surgeons master the details of the simple flexion test, which indicates the slightest commencement of hip-joint malaise, and its opposite test, the experimental test of recovery, the American method of treating hip-joint affections will be relegated to the history of byegone surgery.

Table 2, in its construction, presents one of the defects apparently in table 1. For instance, of what purpose is it to inform us that the treatment in one case commenced in the ninth year of the disease, it might not be so urgent as a case of nine weeks?

Tables 3 and 4 contain nothing more than we already know, and might expect under the clinical conditions. We now come to the comments attached to these tables, which show, that if Dr. Davis' followers had devoted their observations a little more to the subjects to be treated than to the construction of devices, they would dissent less from the practice of British Orthopedic surgeons, and second us in our acknowledgment of the services of our forefathers. In no part of Dr. Shaffer's paper—which is a comment upon treatment, as well as upon his tabular statistics—does he allude even to a standard diagnostic method applied at the commencement of treatment. I shall now quote from several paragraphs to show that he is unacquainted with any "experimental" method of diagnosing genuine recovery. For instance, we are informed that "Examination proved that the amount of motion grows less as time goes by. At the time of discharge several of these patients had a certain recorded degree of motion of the affected articulation. This motion had entirely disappeared a few years later, and in this table these cases figure as cases of anchylosis." If this paragraph is correct, and I have no doubt it is so, then only the three cases classed as having "perfectly free motion" were really sound when recorded as cured, otherwise the motion would have increased. Hence the valuelessness of table 1.

The paragraph I have quoted is the formula of the test of use, yet Dr Shaffer while recording it as evidence gained from the patients, fails so to recognise it, as an invariable rule, which,

being applied early, would not merely have conserved motion, but itwould, in addition, have enabled him to discharge his patients with a certainty of an increasing range of action. Further on in the paper my adverse comment is confirmed, "The amount of motion in the joint when the disease is arrested and the apparatus removed, is very apt to diminish somewhat in the course of years; but recovery with perfect motion is not impossible nor indeed unlikely." This paragraph is a contradiction. I hold, that for it to be surgically correct it ought to read thus:—"The amount of motion in a joint when disease is arrested must increase, but if it decreases with time and use, it was unsound when the treatment was suspended. The amount of motion conserved depends upon the efficiency of uninterrupted fixation."

Five per cent. of hip-joints attacked with inflammation recover with perfect motion though not treated. I base this opinion upon a fact in my practice, that where a patient has been a sufferer during only a period of from one to four weeks, even though the signs are distinct, I prescribe a fortnight to three weeks' reclination, and often with success, gratifying to the sufferer who has so easily escaped from prolonged mechanical treatment.

Except Dr. Shaffer now, February, 1889, is better qualified to sit in judgment upon the treatment of hip-joint inflammation than he was, as I have shown, in 1887, he is not capable of judging of the merits or demerits of the principles and practice which others as well as myself are advocating.

Some of my readers may say that Dr. Shaffer might in twelve months have much modified his opinions, this, however, can be set at rest, for in an official printed circular titled "Official Action Relating to the Orthopedic Department of St. Luke's Hospital," dated December 18th, 1888, Dr. Shaffer, while placing a method in the "index expurgatorius," gives his reasons thus :—

"To summarise : chronic joint inflammation is accompanied, as a rule, by reflex spasm of all the muscles controlling an inflamed articulation. If the inflammation be unchecked, deformity, due to this muscular spasm ensues. As a result of the force exerted by the combined action of all these muscles—and in the struggle for supremacy between the stronger and the weaker groups—there occurs an inter-articular pressure, due to this muscular spasm. It is Nature's effort to limit motion and to produce rest to the articulation. It is present, night and day, and it is wholly beyond the control of the will of the patient. Nothing that I have ever used will annul it, but the profound anæsthesia of ether or chloroform, or prolonged traction. It is the most important sign of hip-joint disease, taking precedence over every other sign or symptom, both from a diagnostic and prognostic standpoint. And as it has been proven many times that anything which increases inter-articular pressure, also modifies this muscular sign (and as it has also been proven that anything which increases inter-articular pressure, increases also all the symptoms of the disease), it

becomes our duty to base our treatment upon the pathological expression of the disease.

"Hence, I may say, that the proper way to meet the conditions named, is to apply a mechanical force, which, if it does not separate the inflamed surfaces, at least modifies their traumatic contact.

"If the attempt is made to overcome this deformity, due to muscular spasm, by means of an apparatus which does not make traction 'in the line of deformity,' its fundamental principle *(as is done by the Thomas splint)*, we create a still greater inter-articular pressure, because we then use the inflamed joint surface or surfaces as a *fulcrum* to overcome the *resistance* (the muscular contraction) the *power* being applied with a fixed apparatus that does not aim at anything more than *position* and the assumed fixation that is supposed to accompany it. In fact, the supposed 'rest' under these circumstances, is a fallacy, and we directly increase the traumatic contact."

In the interest of our art the component parts of these three paragraphs will be here reviewed.

First, we are informed that "Chronic joint inflammation is accompanied, as a rule, by reflex spasm of all the muscles controlling an inflamed articulation. If the inflammation be unchecked, deformity, due to this muscular spasm ensues." This is neutral ground, and does not contain either argument or information in support of, or against, any particular treatment.

Second. "As a result of the force exerted by the combined action of all these muscles—and in the struggle for supremacy between the stronger and the weaker groups—there occurs an intra-articular pressure, due to this muscular spasm." What is meant by "the struggle for supremacy" is not very plain, in fact, it is known only to be an effort on the part of the muscles to fix the joint, not a "tussle" between several sets of muscles. During their efforts at fixation, the femur, unavoidably, must come in contact with the upper section of the acetabulum; but we do not mend matters by employing traction and transferring pressure to the lower segment of the acetabulum during the "tussle" for "supremacy" between the mechanical traction of the surgeon and the whole set of muscles that control the joint.

Third. "It is nature's effort to limit motion and to produce rest to the articulation. It is present, day and night, and it is wholly beyond the control of the will of the patient." Let us give thanks that the whole of this paragraph is true. Nature knows that the arrest of motion, is the one thing needful before all others. The art of surgery is only of yesterday in comparison with the time man has been upon the earth. It was his only chance of recovery, during the very distant past, from hip-joint inflammamation in comparison with which Dr. Shaffer's statistics show that the American method gives no gain. I can recollect the time when the tractionists believing spasms to be the root of all evil in joint disease, made the absurd proposal that all muscles controlling the diseased joint

should be tenotomised, to make it as flail as possible, and thus to relieve articular pressure. Possibly some of the tractionists might say, we should perform this wholesale section of tendons in combination with the use of mechanical devices, but it is obvious that even then, it would not make the proposal less absurd as the tendons would not remain long enough ununited.

Fourth. "Nothing that I have ever used will annul it, but the profound anæsthesia of ether or chloroform, or prolonged traction." With the conclusion of this article I quite agree, prolonged traction, very prolonged indeed, will annul it. From the evidence of tractionists in this country and America, they spend as much time in reducing a deformity by traction as would suffice for some surgeons to cure the case as well. Hip-joint cases in America must be accompanied by muscular symptoms totally different from that observed in this country—if this paragraph be correct. In this "old fashioned" portion of the world, we notice that the deformity indicative of hip-joint disease is accompanied by a structural muscular change, which, except force be also applied, no anodyne will annul, for we know that from the initial moment of the disease a structural change commences in the muscles, not noticeable at that period, but as the disease progresses the change becomes more and more tonic, and the muscles are so altered that one set becomes abnormally short, and the other abnormally long. Under the influence of an anaesthetic, the slight structural changes of the muscle of the very initial period spring out by the weight of the limb, but the greater change—

requires further time. In this country it has been found that immovably fixing the hip-joint annuls pain and spasm, except during the period of distention of the hip-joint when about to rupture.

Fifth. "It is the most important sign of hip-joint disease, taking precedence over every other sign or symptom, both from a diagnostic and prognostic standpoint." This is the most important of the paragraphs. It is upon the proper interpretation of this paragraph that the whole question of the treatment of diseased joints rests, and upon which all erroneous methods are sure to be wrecked. A right interpretation of this paragraph enables a surgeon to diagnose on the very day, the onset, and also the week of recovery. In none of Dr. Shaffer's contributions to surgery does he even imply that he understands the trustworthy flexion test—an infallible guide to diagnosis and prognosis, and an antidote to the American system of treating this disease by motion and traction no matter how carried out.

Sixth. "And as it has been proven many times that anything which increases inter-articular pressure, also modifies this muscular sign (and as it has also been proven that anything which increases inter-articular pressure, increases also all the symptoms of the disease), it becomes our duty to base our treatment upon the pathological expression of the disease." We are in possession of a clinical fact, never disputed, it is this: That the period of most uninterrupted tenderness and spasm of the muscles is when the joint is hyperdistended with

fluid, and consequently the articular surfaces not in contact, yet, as soon as the capsule ruptures, pain is relieved, and spasm ceases, though the articular surfaces are again in contact—a matter really of very small importance.

Seventh. "Hence, I may say, that the proper way to meet the conditions named, is to apply a mechanical force, which, if it does not separate the inflamed surfaces, at least modifies their traumatic contact." Here, Dr. Shaffer and myself agree, and he will find that "the Thomas splint" while immovably locking the joint—the A1 necessity in treatment—is also a force "which, if it does not separate the inflamed surfaces, at least modifies the traumatic contact," annuls tremor and muscular spasm, and will be found to come up to his ideal of treatment, minus motion, the arrest of which will give him a better percentage of cases cured with motion.

Eighth. "If the attempt is made to overcome this deformity, due to muscular spasm, by means of an apparatus which does not make traction 'in the line of deformity,' its fundamental principle *(as is done by the Thomas splint)*, we create a still greater inter-articular pressure, because we then use the inflamed joint surface or surfaces as a *fulcrum* to overcome the *resistance* (the muscular contraction) the *power* being applied with a fixed apparatus that does not aim at anything more than *position* and the assumed fixation that is supposed to accompany it. In fact, the supposed 'rest' under these circumstances, is a fallacy, and we directly increase the traumatic contact." From reading this paragraph we might suppose that

Dr. Shaffer reduced hip-joint deformity by a method fundamentally different from that practised by the "Thomas splint." It is not so, the difference is merely a question of time, the tractionists occupy months where I would occupy but few hours in reducing the deformity. Traction "in the line of deformity" would be endless traction. How is it possible for a flexed hip-joint to have its angle from the plane reduced if the traction is constantly at that angle? If the deformity is to be reduced, there must be a diminution of the angle to the plane during which there is constant intra-articular pressure upon the upper or lower segment of the acetabulum, as a fulcrum; by the Thomas splint it is done rapidly by the weight of the locked knee in a few hours—seldom a week. If we take the evidence of Messrs. Taylor and Marsh, the time expended in reduction by traction may extend over several months, and, further, Dr. Taylor, in his writings, is careful to warn us against over traction, which he has known to damage even the healthy joints in the neighbourhood of the diseased one. Dr. Shaffer appears, from his writings, to follow the practice of Dr. Taylor. As to the "assumed" and the "supposed" "fixation" and "rest" assertion made in this paragraph, I make an opposite assertion easy to confirm by experiment: That the flexion test of the presence of or recovery from disease, is a rigid scrutator which any one, trained or untrained, can employ as a surgical auditor. By the adoption of which procedure nothing is left to the judgment of either an interested surgeon or a dissatisfied patient.

Dr. Shaffer has published a pamphlet entitled, "Reflex Muscular Contraction, &c.," in which, at page 5 will be found a mechanical device for correcting adduction of the hip-joint, by which method the acetabulum is unavoidably used as a fulcrum, though he supposes the contrary. Again by consulting page 13 of the same publication, there is to be seen a device to reduce flexion of the knee-joint, during the operation of which intra-articular pressure is also unavoidable. Indeed, in this question of "fulcrum and leverage," Dr. Shaffer contradicts his teacher, as proof, I refer the reader to Dr. Ridlon's third faciculus of Contributions to Orthopedic Surgery, page 24. In a letter placed in the footnote we find the following: "Then the only safe principle we believe to be fixation and leverage progressively modified."—H. J. Taylor. "P.S.—You will see from the references that we do not believe in the desirability of 'motion without' pressure, while inflammation is acute and progressive, using fixation and counter-extension in such cases." Without the knowledge of true principles—which, of course, apply to all diseased joints—contradictions in teaching and practice must be committed, for instance, at page 4 of Dr. Shaffer's publication on "Reflex Muscular Contraction, &c.," we find

"The primary indications are therefore to relieve joint pressure and to arrest motion."

In the "Annals of Anatomy and Surgery"* Dr. Shaffer

* Vol. V., No. 5.

has laid down the rules for the treatment of disease of the ankle-joint.

"Some surgeons seem to be afraid of producing anchylosis by immobilizing a joint in a state of chronic inflammation. I wish we could accomplish this end by so simple a procedure; but, anchylosis, in chronic arthritis, is not so easily produced. You may stiffen a joint more or less in a state of chronic inflammation, by an immobilizing apparatus, but you will very rarely produce anchylosis by this means."

The above reads not unlike the heresy I have taught and which, if Dr. Shaffer thinks incorrect, he renders surgery good service by opposing. But in the same contribution to the "Annals" there is to be found the following:—

"To revert more particularly to chronic synovitis again, I said, and I again repeat it, do not immobilize the joint in *chronic synovitis*. If you do, the joint soon becomes stiff and useless, and the closely observing friends of the patient will inform you—and they will state a fact—that the joint is in a worse condition than before you applied the apparatus. Use of the joint in chronic synovial inflammation, therefore, is indicated. Motion, without pressure, is plainly demanded; in other words, we must *avoid traumatic contact of the vulnerable surfaces*. To accomplish this we must produce a certain amount of traction, but we must not prevent free movement."

In the year 1879, Dr. Shaffer published a volume entitled, "Pott's Disease: its Pathology and Mechanical Treatment." It is an excellent contribution to the surgery of this ailment. At pages 40, 41, and 42 he tersely shows the evil and the defect of the plaister plus traction method of treating spinal disease. He, like myself, has adopted a modification of Dr. Bauer's posterior shield. We all like to modify the work of our teachers, I suppose, because it will be assumed by our contemporaries that a modification is a second and improved edition.

However, to return to the traction question, the posterior spinal support of Bauer's, and its modification by Shaffer and myself, act upon the principle of lever and fulcrum, and to be effective it must act continuously for a period varying from one to three years. The following is Dr. Shaffer's description of its action.

"I may state, further, my views in general upon the comparative merits of the antero-posterior support and the plaster jacket. The former acts scientifically upon the principle of a lever with the fulcrum at the point of disease."

So that which is beneficial to a spinal disease, though applied long and continuously, if applied to a hip-joint disease only for a few hours, is, according to Dr. Shaffer's manifesto, an evil with no compensating benefit. He certainly gives the reader to understand that he would employ traction if he could, to the treatment of a spinal disease, the impediment being, an assumed or supposed risk of damage to the sound portion of the spinal column. On reading Dr. Shaffer's volume, it did not appear to me, that there was any call for his excusing himself in neglecting to employ traction in spinal disease, inasmuch as at page 40 he gives against its use an excellent reason based upon fact, and as it equally applies to hip-joints it well deserves reproduction here.

"If suspension separates the bones, it does so at the risk of breaking up any reparative process that may have begun, and I am inclined to think that it may accomplish more, in this respect, than is advisable in advanced cases, and if this same force be used, the tetanoid spasm of the muscles prevents, in a great measure, separation of the diseased surfaces in the more recent cases."

In various parts of the volume, the author gives us his opinion in brief concerning the principles of treatment of the large articulations. At page 36, we are told

"1st. Mechanical treatment, either in the spine or larger joints should not be used with the idea of overcoming the muscular resistance. We may succeed in antagonizing the muscular spasm to a certain extent, but it cannot be annulled by any mechanical therapeutics we may devise."

This is not quite consistent with the St. Luke's manifesto, neither is the following:

"It is certain that a comprehensive mechanical extension in a typical case of dry osteitis of the hip or knee-joint does no more than to slightly modify the reflex muscular spasm. Suspension or extension, even if they could be made continuous, can do no more in Pott's disease."

As evidence to show upon what an insecure foundation the Censor of St. Luke's Hospital, New York, stood, December 18th, 1887, when he fulminated his edict against that which he supposed to be a retrogression in treatment, we present him with a few gleanings from the published opinions of Dr. Shaffer's trainers in America, and the representative of the American method in this country; they are a mixture of incompatibles.

"But motion at the knee is a decided disadvantage. It prevents, or at least diminishes, motion at the hip-joint." Page 23, "Mechanical Treatment of Hip-Joint." Taylor.

This is not correct, as anyone can observe, that fixing the knee limits the friction and motion at the hip-joint, while permitting motion at the knee increases friction, and allows more action at the hip.

The following are taken from the *New York Medical Record* of September 1st, 1867—May 8th, 1875.

Dr. Taylor expresses his disbelief in the possibility of drawing out the head of the bone by extension, and very properly remarks

"It would be harmful if it did occur."

In one paragraph we are told that—

"On the other hand, if contractions accompany or follow disease, we may be sure our counter extensions have been inefficient, and therefore worthless, and that the improvement, if any, is due to the quiet fixation of the joint, which the splint has been a convenient means of accomplishing, and I suspect this is very often the case in the use of both splint and pulley."

So that "quiet fixation" can lead to improvement according to Dr. Taylor. The next quotation asserts that "traction" has its evils.

"I have seen several legs irretrievably spoiled by applying the straps on the leg only, neglecting to include the thigh. This has been generally done when the treatment had been by the weight and pulley, force enough to relax the powerful muscles about the hip-joint must be liable to pull asunder the weaker ones at the knee and ankle if traction be made only from the foot and leg."

If this damage can occur from extension applied to a sound joint, what may be the amount of damage done to an unsound articulation, the structural surroundings of which are softened by inflammation?

Again, we are informed that

"With the best appliances disease of the hip-joint is not easy to cure."

The following quotation shows poverty in diagnosis:

"The symptoms generally relied upon as diagnostic of disease of the hip-joint are worthless for all practical purposes of either anticipating the graver stages of the disease, or of affording indications for treatment."

Yet the reader is not introduced to any other method of diagnosis, though he admits the worthlessness of the usual symptoms relied on for detecting this lesion. Here is a paragraph contrasting the effect of art with non-interference in a case presented to him for treatment. He says:—

"Without treatment it was only a question of time, for death of the bone, with its attendant dangers, would occur; and with treatment, increased physical suffering was inevitable."

If this is a deduction from Dr. Taylor's own practice, it is by no means creditable to his method, of which Dr. Shaffer is a close imitator.

In one of the articles in the *New York Medical Record* also is given the history of a case of hip-joint inflammation which had existed fifteen months, and at the time the patient consulted Dr. Taylor, his joint was evidently in a condition of inflammation; yet, to correct the deformities present, the author's splint, with counter-extension was used, together with weight and pulley as extra tractors. This latter item was equal to a pull of fifty pounds added to that of the counter-extension apparatus, which equalled in all, one hundred and fifty pounds, and all this had to be continued uninterruptedly for six weeks. Simple fixed reclination would have succeeded in as many hours. I make this assertion, basing it on the history given, viz., that the disease was active; this being the easiest, quickest, and safest period for reduction of deformity.

Again, we are told by Dr. Taylor in his treatise on the "Mechanical Treatment of the Hip-Joint Disease,"

"There be cases in which the mechanical treatment on account of Pathological conditions, is not applicable, let such be left out of consideration."

And again we find in it the following conclusions :—

"1st. To relieve the pressure in the joint due to muscular contraction, by temporarily destroying the muscular irritability and contractility.

2nd. To protect the joint from weight and concussion.

The indication for arresting motion in the joint, which is well met by the gypsum bandage and similar expedients, pertains only to a condition of rigid muscular contraction, and consequent increased constant pressure in the joint. But no such necessity exists after the muscular rigidity has been overcome to the degree of entirely removing all pressure within the joint.

On the contrary, motion in the joint without pressure is not only not injurious, but beneficial."

Let Dr. Taylor's teaching be compared with the published opinions of Mr. Marsh (who represents "weight and pulley treatment" in this country), taken from his published opinion.

"The time at my disposal does not allow me to do more than thus very briefly to describe the principle of these instruments and the method of their construction ; and in so short a notice it is not possible to do them justice. But you may find a full account of them in Professor Sayre's recently published Lectures on Orthopedic Surgery (Churchill, London), or in Dr. Taylor's essay on the Treatment of Disease of the Hip-joint (New York). The object at which they aim is undoubtedly most important, and they are constructed with great mechanical skill ; yet I confess I have found it extremely difficult to obtain satisfactory results by their use. I suppose the greatest amount to which the surface of the head of the femur can be separated from that of the acetabulum cannot be more than about the tenth of an inch. And it is very difficult to preserve efficient extension and counter-extension within this range ; for the parts cannot be acted upon as if they were parallel metal plates to be adjusted by a screw ; they must be controlled through the agency of perineal bands and strapping fixed upon the skin, and all these are apt to give when they are subjected to constant traction ; and, if they yield, though it be but slightly, they soon, in the aggregate, lose this tenth of an inch of extension, which they should maintain, and then the articular surfaces come again into contact,

Besides, I may refer to what has seemed another difficulty. Both Dr. Sayre and Dr. Taylor allow to move the thigh upon the trunk by bringing it towards flexion, and it has always appeared to me that, if the perineal band be adjusted, according to their direction, when the limb is extended, it will become loose when the limb is flexed. However, I have not had the good fortune to see Dr. Taylor carry out his treatment (though I once saw Professor Sayre apply his splint to a patient in the hospital); but the results published both by him and Professor Sayre are very striking, and are such as all may envy. Still, I cannot help thinking that, with either instrument, extension and counter-extension can only be maintained by such an amount of incessant watching as cannot be secured in the usual course of practice; for, so far as I have observed, the perineal band requires readjustment—when the child is up and about—several times in an hour, and it always grows loose in the course of the night. Again, perineal bands must always be very troublesome appliances in children, especially in girls."

Next follows an antidote to Dr. Marsh, taken from Dr. Taylor's teaching.

"The painfulness usual during activity is lessened by the quiet of the patient's position, and this is wrongly credited to the effect of extension; while the muscular contractions are still not overcome, the pressure in the joint continues practically the same, and while the surgeon may fancy that his patient is being cured by extension and counter-extension, he often is really getting only a certain amount of temporary relief from fixation."

"In careful, experienced hands, the weight and pulley may be made a valuable means: as frequently employed by the careless and inexperienced, my observations in this country and in Europe, satisfy me that it is inferior in practical results, to the plaster of Paris bandage, which does not seek so much and generally accomplishes the anchylosis which it seeks, and with the leg in a better position than is generally obtained by carelessly employed extension."

The great apostle of the American method, Dr. Sayre, is well known to us. In lecture xiv. of his published work on "The Joints," referring to ankle-joint inflammation, he teaches thus:—

"By the splint I prevent motion which would be the cause of relapse."

"I should do well, I think, to explain to you when motion is injurious, and when it is demanded.

So long as there is active inflammation in a joint, motion is injurious, and rest absolutely necessary."

Why the author should here arrest motion, and not advise its limitation, but the very reverse in inflammation of the hip-joint, I fail to perceive. Of course, I can understand motion being permitted where no inflammation exists; sound parts do not require a doctor.

In the same volume is to be found the following :—

"In looking over Sir Benjamin Brodie's works, I find he recommends positive rest, and that is all. But you may do this—you may rest the joint in splints—but you do not do all that is required. You may keep the limb perfectly still, and locked up in every conceivable way, and yet do not overcome the tendency of the muscles to contract—you do not prevent the reflex action."

Here Dr. Sayre is certainly mistaken, for in page 139 of Sir Benjamin Brodie's volume on Disease of the Joints, fifth edition 1850, he will find that the extension method (or counter-extension) is advised, and details for its practical application are given, but I must admit the arrangement would not allow of the application of a hundred and fifty pounder, as Dr. Taylor reports, but which, Dr. Sayre says, is not essential.

"Simply enough extension to overcome the reflex contraction of the muscles."

Sir B. Brodie's mode of applying extension was, I judge, such as would, if required, permit double this amount of traction, but he does not report well of it, and the veterans in the medical profession in Great Britain, will readily vouch for

Brodie's acuteness of Clinical Observation, and, had there been any merit in extension, it would not probably have escaped his observation, interested as he was in this department.

Sayre here or there contradicts himself: Taylor follows suit: Mr. Marsh intervenes with another contradiction; and Tractionists *en masse* denounce Brodie and his predecessors.

From the same volume by Dr. Sayre, lecture xvii., I will give a quotation which is a key to the reason why the American method produces so low a percentage of perfect results :—

"The instrument must be worn until the joint is well; until concussion, produced by bringing the tibia and femur together, does not cause pain, and until pressure over the coronary ligaments is painless. When this can be done, you may remove the instrument and commence the passive movements and manipulations that are to restore motion to the joint, and complete the cure."

Here are given symptoms, supposed to indicate the sound state, and that the limb is fit for use, but which are not trustworthy criteria of the soundness of the joint.

Dr. Sayre's volume is the text-book of the motion treatment of hip disease, also known as the American treatment, and, like other tractionists, he varies his principles as well as his means according to the region which he has to treat. We extract from his volume the following series of incompatibles :—

"In this case, then, I have accomplished what? By my excavation I have removed the essential morbid cause; by the splint I prevent motion, which would be a cause of a relapse." Page 167. Ankle.

"So long as there is active inflammation in a joint, motion is injurious, and rest is absolutely necessary." Page 169. Ankle.

"In all these cases, no matter in how favourable condition the joint may be, when the instrument is removed, it is necessary for a time to apply some kind of apparatus to protect the joint against accidents, such as falls, trippings, etc., and also to prevent too free motion of the joint." Page 209. Knee.

"Again, firm support may be given to the limb, and at the same time motion of the joint allowed within the limits of safety, by the use of the instrument I now show you, made by Mr. Darrach, of Orange, New Jersey." Page 209. Knee.

"Motion is much more painful than rest, even when rest is accompanied by pressure produced by muscular contraction. Hence the patient naturally choosing the least of two evils." Page 246. Hip.

"The local treatment which has grown into favour during the past few years, but which I have advocated earnestly for the past twenty-five years, depends upon the necessity of giving absolute rest and freedom from pressure of the parts involved in the disease, without materially interfering with the mobility of the joint." Page 259. Hip.

"Bonnet's method—fixation without extension—for local treatment has been the plan abroad. In this country, however, fixation with extension has been chiefly employed, and to afford an apparatus that would meet these indications, leathern splints, gypsum and starch bandages, and strong wire gauze, moulded to fit the limb, have all been employed with more or less benefit, but all these plans prevented mobility." Page 259. Hip.

"There are many cases in which the inflammation is so violent, and the pain upon the slightest movement so intense, that absolute rest is requisite for a time, and in such cases the fixed dressing alluded to answers a most excellent purpose. Under these circumstances I employ most commonly the cuirass, with extension. (See Fig. 190.) But motion is as essential in retaining a healthy condition of the structure about a joint as light is essential in retaining a healthy condition of the eye; for the ligaments around a joint will become fibro-cartilaginous, or osseus, if motion is denied them, particularly if a chronic inflammation is going on within the joint with which they are connected. It was in consequence of such accidents occurring in several instances that I was led to contrive some plan by which extension could be maintained that would remove pressure from the acetabulum and the head of the femur, and at the same time permit motion of the joint, thereby retaining the capsular ligaments in a healthy condition." Page 260. Hip.

"If left to itself, the rest which is so essential to the joint is procured by the firm muscular contraction which prevents motion, and this is so perfect, in many instances, as to assume the appearance of genuine bony anchylosis." Page 274. Hip.

"If employed at all, they must be frequently removed, and passive motion employed, else anchylosis, more or less complete, will take place, and the last state of the patient may be worse than the first." Page 274. Hip.

"The patient should then be secured in some apparatus—the wire cuirass (Fig. 169), is most convenient—which will prevent the possibility of motion." Page 277. Hip.

"This plan is to be pursued until the more acute symptoms have subsided; but as it is a disease chronic in its nature, long confinement in a bed is injurious to the general health, and we must, therefore, contrive some mechanical appliance which will give extension and counter-extension, at the same time admitting motion of the joint while it permits the patient to take exercise in the open air." Page 13. American Lectures.

"In some cases where the disease is very acute and the children very small, this is best effected by placing them in a wire cuirass; a modification of Bonnet's grand appariel will be found very useful. When this treatment is employed, it is necessary that the child should be taken from it very frequently, and have all the joints carefully moved, otherwise too long-continued rest of the joints may end in anchylosis." Page 14. American Lectures.

"Perfect rest, long-continued, even of the diseased joint, is decidedly injurious, as there is danger of its resulting in anchylosis." Page 14. American Lectures.

Further, what is meant by the following?

"It (the appliance) was designed that the motions of the joints should be free, and no harm should attend this freedom of motion unless the joint itself becomes the seat of disease."

Are the appliances used where no joint inflammation exists? and if so, for what purpose?

At pages 262–3, the Sayre hip-apparatus and its mode of application are given, and the inventor mentions that other

means must be used during the night, such as the weight and pulley; this latter he designates "bed-extension." At page 268, the information is given that the appliance cannot support the weight of the body, and crutches are advised as accessories. Until I had read this page I understood that its designer taught that his splint prevented intra-articular pressure, but if it cannot sustain the trunk weight, it certainly cannot relieve intra-articular pressure.

From the last and following paragraphs of page 269, it is apparent that Dr. Sayre, like Dr. Taylor, has not found the value of the simple but very important artifice in the mechanical treatment of this affection, namely, locking the knee-joint, which alone, I suspect, would, in the treatment of early inflammation of the hip-joint, give results quite equal to those obtained by the use of their own expensive and illusive machines.

This is a significant information. The first stage, he says, can be treated by the Sayre or Taylor appliance, but when

"There is a great deal of tenderness around the joint, and other evidences of inflammatory action are present,"

Then he advises weight and pulley, but

"If the patient is uneasy, restless, irritative, and does not bear the extension apparatus well,"

it is advised to place him in a wire cuirass, or other fixed apparatus. Much as Dr. Sayre has advocated the extension treatment, more emphatic testimony than he gives here to the superiority of posterior fixation could not possibly be borne.

The above amounts to this:—That if the patient cannot tolerate the irritation of extension, then give him plenty of fixation and ease his pangs.

Another quotation from a tractionist, the representative man in this country. *British Medical Journal*, vol. ii., 1877.

"This use of weight at night is a matter of great importance. If it be neglected, you will find in many cases that although active disease has ceased, the limb will, in the course of a few months, become flexed upon the trunk, so that the child walks more and more upon his toe, and with more and more lordosis."

Politicians in this country cry out to the electors, "Register," my advice to the tractionists is, DIAGNOSE, then you will find that hip-joints do not "become flexed upon the trunk although active disease has ceased," learn how to *really fix*, and *arrest motion*, in a diseased joint, and you will have no muscles to "struggle" with for "the supremacy." Neither will you be disappointed as Dr. Sayre, at page 211 of his volume, says that he has been :—

"There are some cases in which the disease progresses reasonably well until passive movements are resorted to, and then there is at once an almost constant tendency to new inflammatory action, in consequence of such movements, however carefully they may be made."

At hand we possess infallible means of detecting disease of hip and other joints, and equally trustworthy helps to recognise the advent of recovery.

The gentleman who undertakes upon himself the duty of Censor is deserving of thanks (often a thankless job), but undertaking the responsibility without competent knowledge—

theoretical or practical—of the question in dispute, he deserves the neglect which too often falls to the lot of the meritorious.

The quotations which I have given from the published writings of the Tractionists and Extensionists show that not even one of them is in agreement with another as to the foundation of treatment, consequently their disagreement in practice is very pardonable. But besides the above set of practitioners, there are other sects of Orthopedists known as the Do-nothings, they remind me of a late United States political party, who rejoiced in being termed the Know-nothings, and I believe they will be equally short lived as they were. Dr. J. C. Hutchinson is the premier of this party. In the Proceedings of the Medical Society of the County of Kings, vol. IV., No. 2, for April, 1879, we find given to us the "planks of their platform" in an article on the "Mechanical Treatment of the Hip, Knee, and Ankle-joints by a Simple and Efficient Method—the Physiological Method—with cases."

On a careful review of Dr. Hutchinson's article, I find him quite as capable of refuting himself as any Tractionist. In this article Dr. Hutchinson nowhere acknowledges an indebtedness to me for any part of his mechanical device, but for this omission he is absolved by his extreme condescension in adopting as a title to his paper the larger portion of the title-page of a volume published by me in 1875. The principles of treatment advocated by Dr. Hutchinson are the following :—

"The indications for the mechanical treatment of inflammation of the joints of the lower extremities are to secure *immobility*, *extension*, *the re-*

moval of the superincumbent weight of the body, and means of enabling the patient to take open-air exercise. The accomplishment of these indications, and the use of judicious medication and proper hygienic influences comprehend all the principles of treatment.

Immobility of an inflamed joint, absolute and complete, is a primary and essential condition of its local treatment. The more effectually this is secured, the more rapidly and perfectly the joint recovers its normal condition, and the less danger there is of its being permanently damaged. . . . . I am aware that many excellent surgeons believe that the danger of irreparable structural change and anchylosis of the joint is very great from prolonged fixation. This I am sure is an error. There may be a temporary anchylosis, such as arises from a diminution of the elasticity of the articular cartilages and an enfeebling of the ligaments and the muscles from disuse; but such changes are or need be only temporary, for by careful and steadily increasing use, reparation takes place in all these structures, and after a time they show no defect. I have never seen true anchylosis when the joint has been immovably fixed until the inflammation has subsided, except in cases of extensive destruction of the joint-structures, in which case a cure by anchylosis is the thing to be desired. Exceptional cases no doubt occur, but the anchylosis takes place more commonly when fixation is incomplete, and more or less motion and friction are permitted before the inflammation has entirely subsided.

The object of extension is—(1.) To correct the malposition of the limb. An inflamed joint is never straight; it involuntarily becomes flexed, nor is it possible for the patient to prevent or change this position. The flexion takes place slowly, almost imperceptibly, but surely, even when the limb has been permitted to rest quietly in bed, undisturbed either by the patient or nurse; the degree of flexion depends upon the intensity or the duration of the disease. Every joint, when it becomes inflamed, assumes a characteristic *position*, which it is important to know, not merely as a diagnostic sign, but also as a point which may be made useful in treatment."

I highly recommend the above declaration of principles—it is simply natural that I should do so, as I have had no occasion to change my opinions since I first submitted them, fourteen years ago, to the judgment of the profession. Dr.

Hutchinson having very ably made a condensed extract of my teaching, for which I tender my thanks, proceeds to show his application of these principles to the treatment of hip-joint inflammation, prefacing his demonstration by a condemnation of the practice which Dr. Shaffer confidently recommends. Also, he informs us that "Thomas, of Liverpool, believes that the indication of the proper treatment of the disease are to secure immobility of the joint with extension, while Professor Hamilton's wire gauge apparatus was designed merely to secure immobility of the joint without extension." I believe that I ought to understand Mr. Thomas' principles and practice as well as any one in this country; I am not so sure as to Professor Hamilton's. From at least the year 1875 to 1889, Thomas adhered to the practice of immobility of the joint without extension. Referring to Mr. Thomas' practice, we are further informed,

"The instrument is carefully moulded to the inequalities of the body by means of wrenches, and is well padded and covered with leather."

This, I believe, is not quite correct, but the same remark does not apply to the following quotation :—

"This apparatus will not permit the patient to sit down."

This is good evidence of the efficiency of Thomas' apparatus. Before terminating the discursive part of the paper, Dr. Hutchinson very ably points out the errors of the Davis, Taylor, and Sayre practice, and again refers to the

"Thomas instrument, by its long leverage, extending from the angle of the scapula to the calf of the leg, has some control over the movements of the joint, but it is unnecessary for this purpose."

"Some control," which may be taken to mean an insufficient control, viz., that more control may be attained by another method. This interpretation of the words "some control" cannot be correct, viewed through the fact that Dr. Hutchinson, in his treatment of hip-joint disease, makes no attempt to control the joint. He may reply "not so," as

"This immobilization of the joint a kind of Providence has secured, in spite of the efforts of the surgeon to prevent it."

It gives me pleasure to unite with Dr. Hutchinson in acknowledging the efforts of "kind Providence," but however good the intention to gain immobility, inasmuch as we have at hand devices which will give us more fixation than even the efforts of "kind Providence," *i.e.*, the muscles, it is our duty to dispense with Providence on this occasion. Could the muscles maintain the limbs from the onset of the disease until the moment of recovery, fixed in a special position, then surgeons would not be required, and all might be left to Providence. That portion of Dr. Hutchinson's paper relating to hip-joint disease, concludes with a description of a portion of my devices for the treatment of this complaint, the adoption by him of a portion only, viz., "crutch and patten," is condemned by his own teaching, as the following extract proves :—

"The greatest obstacle to recovery is friction of the inflamed surfaces. I do not mean a mere limitation of the movements of the joint—such 'rest' as is obtained by placing the limb upon a soft bed or pillow—but the perfect fixation secured by a splint or other means, which admits of no motion whatever."

Dr. Hutchinson concludes with the relation of cases, which in no way illustrate his treatment, and, further, he disqualifies the whole of the first portion of his paper by the admission that some class of cases "should be treated in bed, in a long splint under weight and pulley." The next point Dr. Hutchinson discusses is the treatment of the knee-joint disease.

"For the morbid conditions of the knee-joint the indications for treatment are in all respects the same as for inflammation of the hip-joint, with the addition of *compression* over the joint."

If called upon to decide upon the merits of the treatment by compression and the treatment by "kind Providence," I should, without hesitation, decide in favour of the latter. It would be an effort towards a retrogression of the disease, while, on the other hand, compression would be an effort aiding its progress. Where ankle disease exists, Dr. Hutchinson employs means theoretically the same as he uses in knee-joint diseases. A discussion followed the announcement of this new gospel, and one enthusiastic surgeon made a complimentary comparison between Dr. Hutchinson and Copernicus, and I have no doubt, had I been present at the meeting when Dr. Hutchinson read his paper, this enthusiastic and liberal-minded surgeon would have meted out to me quite as much credit as I was entitled to.

The Student, at this part of the controversy, may say, "Well, we have tried the application of rest and fixation for the treatment of articular disease, in the United States and elsewhere, before and since Mr. Thomas published his views of treatment."

My reply would be that the remark was correct. Mr. Hilton, in this country, laid down the theory, faultlessly, in the first edition of his book, published during his life time. The subsequent editions are excepted from such an unqualified approval. From a trustworthy source of information, I learn that "Rest and Fixation" has its representatives amongst the United States' surgeons. I now propose to select from the writings of one of them an example which will show that my teaching and theirs differ materially. Dr. F. Willard, Philadelphia, may be fairly accepted as a representative man. By his thoughtful courtesy, there is in my possession a copy of his pamphlet on "Joint Disease Treated by Rest and Fixation." I can recommend this to the notice of surgeons as being one of the few pamphlets in which the author never contradicts himself. By rest he means interrupted rest, by fixation interrupted fixation. I have, during the last twenty years, invariably held opinions and applied treatment the converse of this.

I am told, and I believe it, that Dr. Willard long preceded me in drawing attention to Rest and Fixation for the treatment of joint disease, from his own standpoint. My formula is that the rest must be physiological as well as mechanical, and uninterrupted so long as the slightest unsoundness exists, and that the mechanical treatment shall not trespass upon the physiological, so as to interfere with the nutrition of the diseased part. I now give the reader a quotation from page 1 and 2 of Dr. Willard's pamphlet.

"The application of rest as a principle in the treatment of joint disease, although very generally accepted, is yet frequently employed only as an adjuvant to other measures of relief, while its proper position is in the first rank, and all other means are subsidiary.

"The principle is capable of wide application in medicine. Splints—rest-producers—are applied in fractures and in wounds to limit inflammation. Inflammations of the pleura, liver, intestines, or peritonæum are best controlled by absolute recumbency. In joint inflammations, quietude, unaided and alone, is capable of effecting more in averting and subduing a developing disease than iodine, blisters, heat, cold, the cautery, *et id omne genus*. These measures, powerless in themselves, are, however, useful as supplemental treatment; but no surgeon is justified in trusting to their power when dealing with a disease which is so prone to develop the most serious results if neglected. As soon should he trifle with a bleeding femoral artery or a post-partum hæmorrhage. In osteitic cases, especially, the evil tendency is so strong that no time can be lost.

"Those who advocate the 'motion-without-friction' assert that motion is the normal condition of a joint, which statement, while true as regards normal articulations, is no more applicable to diseased ones than to inflamed muscles or other tissues."

Absolute "recumbency" merely, would be of very little use where inflammation of the pleura, liver, intestine, or peritoneum exists, if the patient with the first-named complaint were permitted constantly to sing a song, or with the second allowed to take daily emetics, or with the third and fourth, red herrings and purgatives.

In the following paragraph a slight error occurs.

"Nature evinces her aversion to motion by producing the most perfect rest which she is able to accomplish unaided. Muscular rigidity is the first and most common *avant-coureur* of danger."

Muscular rigidity is the partner, not the fore-runner, of unsoundness. The extract which follows the previous quotation shows that the author does not practise fixation until the case becomes acute.

"If the affected member is the lower limb, it should under no circumstances be placed upon the floor, and, until pain and all signs of acute inflammation have subsided, the recumbent position should be unceasingly maintained. If starting or spasmodic pains are present, weight and pulley extension should be employed, and fixation enforced until relief is secured."

If the reader, however, will compare the preceding with the following quotation, he will sympathise with me in my difficulty in deciding at what stage of the disease Dr. Willard applies his disjunctive rest treatment.

"The abortion of articular disease is considered impossible by some surgeons, but cases of traumatic origin can, within the first ten days, be easily checked. The sceptical maintain that such a case is not one of true joint disease. It certainly is not articular osteitis; but a flame is as much a fire, save in degree, when first started, as when it has became a conflagration, and every suppurating articulation had a stage when it was but a tiny spot of irritation. One week of proper early treatment is more efficient than months of later work."

Ten days seems to be his favourite period for fixation. Of course, if ten days' fixation is sufficient to make sound a diseased hip-joint, then a further period is a waste of time. At page 4 we are informed

"In many cases a cautious surgeon can gain considerable time by straightening the limb during anæsthesia, but such a procedure requires the greatest caution least new inflammation be excited."

How an alteration of deformity can be brought about without some, be it ever so slight, aggravation of the inflammation, I cannot understand, when we take into consideration the fact that to alter a sound deformity some degree of unsoundness is induced, except the subject be lifeless. In that case, of course it is mere laceration, nothing further follows. The mid para-

graph at page 6 is devoted to the treatment of joint disease, and the devices are such that, while he secures mechanical fixation, his means create physiological disturbances.

In page 8, he commends Dr. Hutchinson's mode of treating hip-joint disease as being only suitable "among poor patients." Why poor patients? Surgery is not a "caste" art. By a study of Mr. Thomas' teaching, it will be found that whether the patient belonged to the favoured or the neglected of Providence, the treatment, whatever money is at our service, is the same, the cost is the same, and that very moderate, and is as reasonable and efficient as it is moderate. Dr. Willard seconds Dr. Hutchinson in testifying to the efficiency of the Thomas' hip-splint.

"Thomas' posterior bar answers a good purpose, but is open to the objection that sitting is impossible in a proper position."

Dr. Willard's hip appliance has an arrangement to enable the patient to sit, and thus fix his hip-joint while it is yet unsound, an excellent device if we could lay aside the disease for the occasion. That the reader may see that I do not misinterpret the writer, I append the following quotation:—

"Objection has been raised to my apparatus, that it permits motion; but experience shows that the simple temporary flexion movement is far less injurious than the twist necessitated by other fixation splints, since it is impossible to restrict patients to standing and lying."

To permit "simple temporary flexion" is a great evil. In my opinion it is far better to follow the "Providential" treatment of Dr. Hutchinson.

As showing the great difference between the author and myself in our theoretical opinion, here follows a quotation from page 13:—

"To apply the principle of rest, we have here, first, to tightly wrap the wrist and hand with an adhesive-plaster bandage, which exerts pressure and tends to prevent the posterior displacement of the carpus, which is so common when the dorsal ligaments give way. Over this should be applied a gypsum bandage, the hand being held during the hardening process midway between supination and pronation."

Here we have, as I have already pointed out a mechanical interference with the nutrition of the part, a compression applied to a region unsound, an evil equal to concussion. At page 14, for the treatment of elbow-joint disease, pressure is there again advised on the deceased area, a practice incompatible with actual rest of the part.

Dr. Shaffer, by his manifesto from St. Luke's Hospital, will not long extend the life of the practice he wishes to protect. If a surgeon who has witnessed his practice and assisted him, such as Dr. Ridlon, wavers, we may reasonably conclude that it is not the best method. The Tractionists of the Davis' type refute themselves by their own writings, and the Extentionists by weight and pulley, are constantly committing self-dispatch. Inexplicably to me, all Orthopedists, when discussing the treatment of articular disease, confine their illustrations to the hip-joint. No doubt one joint is sufficient, though the mechanics of the treatment may vary, but then we also find that with them the principles vary according to the special joint that has to be treated. Dr. Shaffer's treatment is no exception to this

inconsistency. For one reason as a matter of duty, and again lest I should be charged with committing the discourtesy which I complain of in others, I here extract from Dr. Hilton's work his opinion concerning rest in articular disease.

"Many persons, however, believe that the joints, their soft parts especially, being unused and kept in restraint, although not at the time actually diseased, may suffer irreparable structural change or deterioration by long-continued rest, and that healthy joints may become anchylosed as the consequence solely of that rest. This opinion is advanced as an argument against the employment of long-continued rest to diseased joints. Now, I doubt the soundness of this conclusion; nay, indeed, I believe that it is essentially untrue. It is possible, and may be probable, that a temporary alteration and a diminished elasticity of articular cartilage may occur; that the ligaments may become feeble, and the synovial membrane unmindful of its duties, without the stimulus of friction; that the bones may lose their firmness, and the muscles their strength, from disuse; but such deteriorations are only temporary, for reparation is perfected in all these structures by careful and steadily increasing use or employment, and after a time they show no defect."

We have no evidence that Dr. Hilton had any practical proof of the above theory. It was merely the outcome of general observation in the treatment of the disease in general. He has left us no special description of this treatment of joint disease. Five years after I published my work on Articular Disease, and in about three years before I had the pleasure of his personal acquaintance, my friend, Dr. E. H. Bradford, of Boston, issued a reprint from the *Boston Medical and Surgical Journal*, November 11th, 1880, in which are detailed some very interesting experiments with reference to the treatment of joint disease by weight and pulley. It is true they were performed upon the cadaver, but they point out that other

structures than the muscles are subject to tension, if the treatment by weight be effective, proving Dr. Taylor's teaching that sound parts may suffer, and thus confirming my own theory that parts which are sound cannot be altered without the inducement of some degree of unsoundness, and parts unsound are aggravated during even a carefully conducted alteration of form, Dr. Bradford supplies an excellent example of this at page 21 of his reprint.

"CASE XXI. A boy aged five, with hip disease, had been treated for several weeks by complete fixation in bed and extension by weight and pulley. The symptoms, which had been acute, had subsided. There was no swelling, pain, or tenderness about the hip, and the case had been progressing favourably for some time. A Thomas' splint was applied and accurately fitted. On the following night there was severe nocturnal pain, which increased on the next night The next day the hip was found swollen and tender, and the limb sensitive on jar. The symptoms all disappeared immediately on removal of the splint and the readjustment of the extension. The boy has since been progressing well, as before. The coincidence was so marked that there could be no doubt that the disease had been aggravated by the splint, and that this exacerbation was stopped by its removal. It should be said that in six other cases where Thomas' splints were applied nothing of this sort has occurred."

In the case here referred to, where the splint gave rise to aggravation of symptoms, had the splint been continued for two days longer the patient would have been freed from pain, there being then no flexion. The aggravation of symptoms arose from the existence of some degree of unreduced flexion. In the six other cases where no unwelcome symptoms followed, there could not have existed any degree of flexion. The treatment of the hip-joint, or any other joint, by continuous extension, is of all forms of treatment the most incorrect, inasmuch as

after it has made a correction of form it is still effective, and prolongs the period of unsoundness.

As soon as we recognise the true principles of treatment, there will be no excuse for the issuing of manifestoes to regulate it, as treatment, will not then radically vary; it will only be the addition or the removal of a buckle or button, or the ornating of our means to suit the harmless caprice of the patient.

Armed with correct theoretical knowledge, the surgeon, in his teaching, will not contradict himself, and in his practice will accomplish that which a practitioner not so qualified cannot perform. I have already published the principles in detail, which are only referred to in this paper, consequently I need not recapitulate them.

I now invite surgeons to judge whether Dr. Shaffer's position is open to be successfully assailed by our common knowledge.

Read April 9. 1889
Bernard Roth

PRESS OPINIONS.

PRESS OPINIONS.

CONTRIBUTIONS TO SURGERY AND MEDICINE.

INTESTINAL OBSTRUCTIONS.—PART I.

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the whole of Mr. Thomas's discussion of the symptoms of obstruction will well repay perusal, on account, not only of what he says, but what he suggests, and the fearlessness with which he criticises doctrines which have long passed current almost without question."—*British Medical Journal*, June 28th, 1884.

"Mr. H. O. Thomas is chiefly known to the profession as the inventor of excellent splints for the treatment of diseased joints. Mr. Thomas has certainly fulfilled one of the conditions of successful authorship; he has had something to say, and that 'something' is to a large extent valuable to the profession. . . . Mr. Thomas's teaching is well worthy of the careful attention of the profession, who will not be at a loss to see the extent of its value."—*Lancet*, November 8th, 1884.

"We have read this elaborate and exhaustive treatise with interest, care, and, we think, profit. It is written, we may say at the outset, evidently with the purpose of demonstrating that the proper method of treating all cases of obstruction, not excluding even hernia, is by starvation and opium. While we think that Mr. Thomas pushes his arguments rather far,—but of course, we may be prejudiced,—we are ready to admit that even in the present enlightened age the so-called orthodox treatment of intestinal cases is far from safe in many instances. . . . There are many remarks of our author that we would like to quote for the benefit of our readers, but we must refer them to the book itself, which, though somewhat lengthy, will repay a careful perusal."—*Edinburgh Medical Journal.*

"The author of this book, better known to the profession as the inventor of the splint for hip-joint disease which bears his name, believes that the usual treatment of intestinal obstruction is faulty chiefly by reason of the complete lack of any guiding principle. The first eighty-two pages are devoted to a review of the literature of the subject, in which the author fairly makes out his case. . . . On the whole, we must fairly admit that Mr. Thomas's work is both original and suggestive, and we recommend its perusal as likely to prove useful to all surgeons who have much to do with cases of intestinal obstruction."—*Medical Times*, November 8th, 1884.

"As far as matter is concerned we have no hesitation in recommending it as an interesting volume on what is too often made an uninteresting subject,

and we may go as far as to say that no practitioner should consider the question of the treatment of intestinal lesion as settled in his own mind until he has read it."—*Medical Press*, April 29th, 1885.

"The book of Hugh Owen Thomas, of Liverpool, upon Intestinal Disease and Obstruction is a work that I think should not only be read but carefully studied by every man practising general medicine and surgery. Perhaps the majority of the profession would not agree with the author, but there are few indeed that would not learn much of value."—*The Weekly Medical Review*, Chicago and St. Louis, July 18th, 1885.

"There is no subject in practical medicine or surgery about which there is greater discord of opinion, more especially as regards treatment, than that of intestinal obstruction—certainly none about which definite information is more urgently needed. We therefore welcome this work as being, in our opinion, a valuable clinical contribution to the elucidation of this much vexed question, and we feel sure that anyone perusing it with impartiality cannot fail to be struck with the marked originality, accurate observation, and sound judgment displayed by the author in dealing with an admittedly difficult problem.

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THE COLLEGIAN OF 1666 AND THE COLLEGIANS OF 1885.—PART IV.

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rational hope of dealing with these complaints more effectively. . . . . The book throughout reads to us like the writing of a man who has genius —who has, that is, the clear sight and the unhampered reason which lead him easily into the secrets of nature. What experience will have to say to his teaching remains yet to be seen."—*Westminster Review*, Jan., 1879.

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"I particularly wish to take this opportunity of directing your attention to a book by H. O. Thomas on Diseases of the Hip, Knee, and Ankle-Joints."—*Report of Surgical Poliklinik at the University of Munich, Professor Hellferich.*

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